ARIZONA PUBLIC SERVICE COMPANY

Cholla Power Plant

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT FOR 2024

COAL COMBUSTION RESIDUALS RULE GROUNDWATER MONITORING SYSTEM COMPLIANCE

JANUARY 31, 2025



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ARIZONA PUBLIC SERVICE COMPANY

NAVAJO COUNTY, ARIZONA

PROJECT NO.: US0023513.9708
DATE: JANUARY 31, 2025

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LIST OF ACRONYMS AND ABBREVIATIONS

§	section
Annual Report	Annual Groundwater Monitoring and Corrective Action Report
ACM	Assessment of Corrective Measures
ADWR	Arizona Department of Water Resources
amsl	above mean sea level
APS	Arizona Public Service Company
ASD	Alternative Source Demonstration
bgs	below ground surface
BAM	Bottom Ash Monofill
BAP	Bottom Ash Pond
BTV	Background Threshold Value
CCR	coal combustion residuals
CCR Rule	40 CFR Part 257
CCR units	CCR landfills and surface impoundments
CFR	Code of Federal Regulations
Cholla	Cholla Power Plant
COCs	Constituents of Concern
CSM	Conceptual Site Model
DF	sample dilution factor
Eurofins	Eurofins TestAmerica Laboratories, Inc.
FAP	Fly Ash Pond
ft	foot, feet
ft/d	feet per day
ft/ft	feet per foot
GMCAR	Annual Groundwater Monitoring and Corrective Action Report
GWPS(s)	Groundwater Protection Standard(s)
I-40	Interstate 40
lbs	pounds
MCL	Maximum Containment Level

MDL	method detection limit
mg/L	milligrams per liter
Moqui	Moqui member of the Moenkopi Formation
N/A	not applicable
Pace	Pace Analytical Laboratories, LLC
Radiation Safety	Radiation Safety Engineering, Inc.
the reporting period	the calendar year preceding the "annual groundwater monitoring and corrective action report" prepared by January 31
RL	reporting limit
SA1 2024	the first semi-annual groundwater monitoring event on April 14 through May 28, 2024
SA2 2024	the second semi-annual groundwater monitoring event on October 17 through November 14, 2024 and December 10, 2024
SAP	Sampling and Analysis Plan
SDAWP	Statistical Data Analysis Work Plan
SEDI	Sedimentation Pond
Site	Cholla Power Plant
SSI(s)	statistically significant increase(s)
SSL(s)	statistically significant level(s)
TDS	total dissolved solids
USEPA	U.S. Environmental Protection Agency
WSP	WSP USA Inc.
Wupatki	Wupatki member of the Moenkopi

GROUNDWATER MONITORING AND CORRECTIVE ACTION PROGRAM OVERVIEW

FACILITY NAME:	ARIZONA PUBLIC SERVICE CHOLLA POWER PLANT	ANNUAL REPORT DATE:		1/31/2025
Location:	Navajo County, Arizona	Reporting Period:		1/1/2024 – 12/31/2024
Groundwater Monitoring Program Status				
CCR Unit	Status at Beginning of Reporting Period	Status at End of Reporting Period	Date(s) of Any Program Transitions	Comments
Fly Ash Pond (FAP)	Assessment Monitoring	Assessment Monitoring	2/12/2018	Progressing Activities Supporting Remedy Selection
Bottom Ash Pond (BAP)	Assessment Monitoring	Assessment Monitoring	2/12/2018	Progressing Activities Supporting Remedy Selection
Sedimentation Pond (SEDI)	No Further Monitoring	No Further Monitoring	10/21/2022	Certified Closed by Removal October 21, 2022
Bottom Ash Monofill (BAM)	Detection Monitoring	Detection Monitoring	N/A	-
Groundwater Monitoring Statistical Analysis Summary				
CCR Unit	Appendix III Constituent(s) with SSIs over Background	Monitoring Wells where SSIs over Background have been Observed‡	Appendix IV Constituent(s) Present at SSL(s) above GWPSs	Monitoring Wells where SSLs above GWPSs have been Observed‡
Fly Ash Pond (FAP)	B, Ca, Cl, F, pH	M-50A, M-51A, W-123	As, Co*, F, Li, Mo,	M-50A, M-51A, W-123
Bottom Ash Pond (BAP)	B, Ca, F, pH, SO_4, TDS	M-52A, M-53A, W-305, W-306, W-314	Co, Li*	M-52A, M-53A, W-305, W-306, W-314
Sedimentation Pond (SEDI)	N/A	N/A	N/A	N/A
Bottom Ash Monofill (BAM)	None	None	N/A	N/A
Corrective Action Summary				
CCR Unit	Dates when the ACM was Initiated and Completed	Date of Public Meeting Discussing the ACM	Date when Remedy was Selected	Dates when Remedy was Initiated and Completed
Fly Ash Pond (FAP)	2/13/2019; 6/14/2019	8/17/2022	N/A	N/A
Bottom Ash Pond (BAP)	2/13/2019; 6/14/2019	8/17/2022	N/A	N/A
Sedimentation Pond (SEDI)	N/A	N/A	N/A	N/A
Bottom Ash Monofill (BAM)	N/A	N/A	N/A	N/A

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

* Removed as a constituent of concern based on a successful Alternative Source Demonstration
‡ Only includes wells where statistical analyses have been performed (i.e., Downgradient CCR Monitoring System

1 INTRODUCTION

This Annual Groundwater Monitoring and Corrective Action Report for 2024 (Annual Report) was prepared on behalf of Arizona Public Service Company (APS) by WSP USA Inc. (WSP), previously WSP USA Environment & Infrastructure Inc., for the Cholla Power Plant (Cholla or the Site) located in Navajo County, Arizona. The Annual Report summarizes groundwater monitoring and corrective action data collected to support compliance with coal combustion residuals (CCR) groundwater monitoring and corrective action requirements detailed in 40 Code of Federal Regulations (CFR) Part 257 (herein referred to as the CCR Rule; Federal Register, 2020).

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

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

1.1 SITE BACKGROUND

1.1.1 FACILITY AND CCR UNIT DESCRIPTION

Facility Description. Cholla is a coal-fired power plant with two electric generating units (Units 1 and 3) in operation during 2024. Units 1 and 3 have a combined nameplate capacity of 425.9 megawatts and are owned and operated by APS. Unit 2 was retired in October 2015 and Unit 4 was retired in December 2020. Coal burned at the plant was previously sourced from the McKinley Mine in New Mexico. When the McKinley Mine closed in 2009, the source of coal switched to the Lee Ranch and El Segundo mines near Grants, New Mexico.

Facility Location. The plant and associated infrastructure are located on land owned/leased by APS adjacent to Interstate 40 (I-40) between Winslow and Holbrook in Navajo County, Arizona (**Figure 1-1**). The plant sits next to Cholla Reservoir, a cooling pond for Unit 1 and water storage reservoir for the plant that was originally constructed in the early 1900s by the Joseph City Irrigation Company (Shilling, 2005) and was configured in its current location and design by APS in 1961. Cholla Reservoir receives deliveries of groundwater pumped from the nearby Cholla production well field (south of the plant) extracting from the Coconino Sandstone Aquifer. The typical water surface elevation of Cholla Reservoir is 5,022 feet (ft) above mean sea level (amsl).

Active CCR Unit Description. Plant infrastructure includes three single CCR units that are currently receiving CCR and are referred to as the Fly Ash Pond (FAP), Bottom Ash Pond (BAP), and Bottom Ash Monofill (BAM). Each of the CCR units are located north of I-40 (**Figure 1-2**). The FAP and BAP dams were completed in 1978, and the BAM came into operation in the late 1990s. **Table 1-1** summarizes the location, function, operation, size/construction, and history of each unit. The boundaries of CCR units depicted in **Figure 1-2** are based on available historical plans for the units.

Closed CCR Unit Description. The Sedimentation Pond (SEDI) was a single CCR unit formerly located in the plant area, south of I-40 (**Figure 1-2**) that was placed into service in 1976 and ceased receiving CCR in October 2020. Demolition and excavation of the SEDI was complete in October 2021.

The SEDI was delisted as a CCR unit following certification of closure by removal in October 2022 (WSP, 2023a). As of October 2022, samples are no longer required to be collected at the former SEDI background and downgradient boundary wells (M-56A, M-57A, M-58A, and M-62A).

1.1.2 ENVIRONMENTAL SETTING

Unless otherwise noted, the following information is abstracted from Montgomery & Associates (2011), Montgomery & Associates (2017), and AMEC Environment & Infrastructure, Inc. (2012).

Climate. The plant is located in an arid climate within the Little Colorado River Basin. The area receives an average of 6 to 12 inches of precipitation annually. The evaporation rate exceeds the rate of precipitation by an order of magnitude.

Topography. Cholla is located at an average elevation of approximately 5,025 ft amsl in the Colorado Plateau physiographic province of northeastern Arizona. The area is characterized by canyons, high elevations, and narrow, widely spaced riverbeds. The topography of the plant area is characterized by rolling terrain, open vistas, and incised drainages/arroyos. In the vicinity of the plant, the ground surface gently slopes towards the Little Colorado River to the south at approximately 60 ft per mile; however, surface drainage immediately near Cholla Reservoir flows towards the reservoir. About two miles north and south of the plant, the ground surface rises out of the alluvial floodplain to an elevation of 5,100 to 5,200 ft amsl.

Surface Water Hydrology. The plant is located north of the Little Colorado River within the Middle Little Colorado watershed. The Little Colorado River is a meandering, perennial stream with intermittent reaches in a large alluvial floodplain. Tanner Wash is an ephemeral stream that flows adjacent to the BAP and BAM and discharges into the Little Colorado River to the west of the plant site.

Site Geology. The Colorado Plateau, on which the plant is located, is typified by horizontal layered sequences of sedimentary rock, primarily sandstones, siltstones, and claystones. At the plant and nearby CCR units, the uppermost geologic units that are expected to influence groundwater flow and contribute to variations in naturally occurring constituent concentrations across the Site are as follows (in descending order):

- **Little Colorado River, Tanner Wash, and Other Wash Alluviums:** The quaternary surface alluviums overlie bedrock formations in localized areas at Cholla in the vicinity of the CCR units. The alluviums are unconsolidated, heterogeneous, and consist of clay, silt, sand, and gravel. In general, the Tanner Wash Alluvium (near the BAP) and other wash alluviums (mostly under the FAP) are finer grained than the Little Colorado River Alluvium. The alluviums range in thickness from non-existent to approximately 200 ft, and in general are thickest underneath the plant and Cholla Reservoir. In the vicinity of the CCR units, the alluviums range from approximately 50 ft thick in the vicinity of the FAP Dam to 100 ft thick in the vicinity of the southern BAP Dam.
- **Moenkopi Formation:** The Moenkopi Formation is the uppermost geologic unit beneath the facility and is present at land surface in areas where the alluvium is non-existent. The thickness of the Moenkopi Formation near the plant ranges from non-existent to over 300 ft. Where it is sufficiently thick, the Moenkopi Formation acts as an aquitard between the shallow alluvial aquifer and the underlying Coconino Sandstone Aquifer. The Moenkopi Formation consists of three members, described below:
  - **Holbrook Member:** the unit is a relatively permeable, well-consolidated sandstone. The Holbrook Member is the uppermost member of the Moenkopi Formation and is not generally present in the subsurface in the vicinity of the plant.
  - **Moqui Member:** the unit is the primary confining unit within the Moenkopi Formation and consists of maroon and greenish mudstone with abundant gypsum. The Moqui Member is up to approximately 250 to 300 ft thick near the plant.

  - **Wupatki Member:** the unit is the lowest member of the Moenkopi Formation and is approximately 30 to 50 ft thick. The Wupatki Formation is comprised of relatively permeable sandstone and is in hydraulic connection with the underlying Coconino Sandstone.
- **Coconino Sandstone:** The Permian-age Coconino Sandstone is the principal lithologic unit of the C-aquifer, a regionally important aquifer for water supply. It is composed of very fine- to fine-grained sandstone with variable permeability depending on the degree of fracturing and cementation. The unit is approximately 375 to 400 ft thick in the vicinity of the plant.
- **Schnebly Hill Formation:** The Schnebly Hill Formation is a very fine-grained, reddish sandstone that is about 300 to 350 ft thick near the plant. It is part of the C-aquifer, but its hydraulic conductivity is about 10 to 28 percent that of the Coconino Sandstone.
- **Supai Formation:** The Pennsylvanian to Lower Permian Supai Formation underlies the Coconino Sandstone. It has minimal impact on the surface operations of Cholla, other than containing an approximately 600-ft-thick deposit of halite and anhydrite in the Cholla well field area that impacts groundwater quality both regionally and in the vicinity of the plant.

Applicable Hydrostratigraphy. Two relevant hydrostratigraphic units are conceptualized beneath the plant and associated CCR units. The units form the basis for the hydrogeologic Conceptual Site Model (CSM) developed by Montgomery & Associates (2011 and 2017) for the purpose of evaluating compliance wells for the CCR Groundwater Monitoring System.

The first hydrogeologic unit, the Alluvial Aquifer (consisting of the Little Colorado River, Tanner Wash, and other wash alluviums), is present beneath the plant area, Cholla Reservoir, and the Tanner Wash and Little Colorado River drainage channels adjacent to the BAP and FAP, respectively. The alluvial aquifer in the area receives recharge from the Little Colorado River, Tanner Wash, other contributing drainage channels and any leakage through anthropogenic features, such as the reservoir and the nearby Joseph City Canal. The alluvial aquifer is not used as a drinking water supply but does support a riparian habitat along natural surface water channels. Depth to water in the alluvial aquifer ranges from several feet to several tens of feet below land surface in the Cholla area, varying spatially based on proximity to recharge sources and topography, and seasonally based on rainfall-runoff patterns. Where present, groundwater flows generally in the downstream direction of the drainages under which it is present, that is, east to west in the Little Colorado River Alluvium and north to south in the Tanner Wash Alluvium. Groundwater flow in the Little Colorado River Alluvium is also influenced by deeper paleochannels that may not coincide with the present river channel.

The second hydrogeologic unit is the C-aquifer, which consists of the Coconino Sandstone and Schnebly Hill Formation in the vicinity of the plant. Groundwater in the C-aquifer is present under confined to semi-confined conditions in areas north of the Little Colorado River where the Moqui member of the Moenkopi Formation (Moqui) acts as a confining bed. Groundwater movement in the C-aquifer is generally to the north. However, until recently, pumping from the Cholla production well field (south and west of the plant) created a cone of depression that influenced the localized groundwater flow in the area. Groundwater pumping rates from the production well field have significantly declined since shutdown of electrical generating Unit 2 in 2015 and Unit 4 in 2020 and a corresponding increase in the piezometric surface of the C-aquifer has been observed. Near the FAP, the inferred flow of groundwater in the C-aquifer is to the west or northwest, possibly due to the broad, northwest-trending anticline that extends from the vicinity of the FAP to near Joseph City.

In areas where the C-aquifer in the Coconino Sandstone is confined (generally north of the Little Colorado River), the Moqui aquitard limits hydraulic connection between the alluvial aquifer and the C-aquifer and is effectively bedrock when considering water quality conditions and groundwater movement in a significant portion of the alluvial aquifer. However, connections between the C-aquifer and the alluvial aquifer are becoming better understood as the C-aquifer recovers from long-term production well pumping associated with plant operations. Recent water level monitoring indicates a regional increase in groundwater elevations in the alluvial aquifer that appears to be related to upwelling of groundwater from the C-aquifer in areas where the Moqui is not present or insufficiently thick.

Additional evidence that hydraulic interactions between the relevant hydrostratigraphic units and the Moqui are complex includes the results of investigations, which indicate localized saturation occurs in the uppermost layer of the Moqui downgradient of the BAP and FAP. These lenses of saturation in the Moqui occur principally at the base of historical drainage channels where the unit is weathered or where penetrations from piezometer or

monitoring well installation activities have fractured the mudstone of the Moqui and allowed overlying alluvial groundwater to infiltrate into the unit (WSP, 2023b). Monitoring wells drilled in the area downgradient of the FAP in 2024 indicate that there is a gradational contact between the Wupatki formation and Coconino Sandstone with fractures and voids present within the Wupatki indicating some interconnectivity with the lower portion of the Wupatki and upper portion of the Coconino (WSP, 2024a).

Uppermost Aquifer by CCR Unit. The CCR Rule requires that the uppermost aquifer underlying each CCR unit be monitored to evaluate potential impacts from the unit. At Cholla, the uppermost aquifer by unit is as follows:

- **FAP (other wash and Little Colorado River Alluvium):** The FAP was constructed by damming an ephemeral surface water channel with a limited watershed that previously discharged to the Little Colorado River floodplain. The surface impoundment is primarily underlain by the relatively impermeable Moqui member of the Moenkopi Formation; however, a relatively thin layer of alluvial sediments underlie the FAP (particularly in the vicinity of the dam) and is in communication with alluvium downgradient of the FAP. The FAP dam has a clay core that extends through the alluvium to Moqui bedrock where the alluvium was less than 20 ft thick at the time of dam construction. In the middle of the dam where the alluvium was greater than 20 ft thick, a cutoff wall was constructed that generally extended approximately 1 to 2 feet into bedrock. Groundwater at the toe of the FAP dam flows west-southwest primarily through shallow alluvial sediments (which are fairly fine grained) and then merges with the Little Colorado River Alluvium where the predominant direction of groundwater flow is to the west. Localized saturation also occurs in the weathered, uppermost portion of the Moqui near the FAP dam and downgradient of the FAP, near the Hunt seep.
- **BAP (Tanner Wash Alluvium):** The BAP is located in an ephemeral surface water channel that formerly discharged into Tanner Wash. The northern and western abutments of the BAP dam are constructed on the Moenkopi Formation, whereas the length of the southern portion of the dam is constructed predominantly on alluvial material. The BAP dam has a clay core that extends through the alluvium to bedrock where the alluvium was less than 20 ft thick at the time of dam construction. In regions where the alluvium was greater than 20 ft thick, a cutoff wall was constructed that generally extended to bedrock. However, due to the depths involved, the cutoff wall does not extend to bedrock in the middle of the channel underlying the southern dam. There is an approximately 30- to 40-ft-thick layer of alluvium below the base of the cutoff wall in that region (at an elevation of 4,980 ft amsl). Groundwater near the BAP flows south-southwest primarily through the Tanner Wash Alluvium to its confluence with the Little Colorado River Alluvium. Near the southern BAP dam, groundwater flows within a localized region of the weathered, uppermost portion of the Moqui.
- **BAM (Coconino Sandstone):** The BAM is a CCR landfill constructed in the Tanner Wash watershed. It is constructed on the Moqui member of the Moenkopi Formation where no saturated alluvium is present; water levels from nearby wells indicate that the Moenkopi is unsaturated beneath the BAM. Therefore, the uppermost hydrogeologic unit at the BAM is the Coconino Sandstone Aquifer, which exists under confined conditions more than 300 ft below ground surface (bgs) in the vicinity of the BAM. Groundwater in the Coconino Aquifer beneath the BAM flows to the north-northwest.

1.2 CCR GROUNDWATER MONITORING SYSTEM

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

Installation of the networks is summarized in the *Cholla Power Plant Coal Combustion Residuals Program – Design, Installation, and Evaluation of Completeness of Groundwater Monitoring Networks* (CCR Groundwater Monitoring System Certification Report; Montgomery & Associates, 2017, as well as an update to the report prepared during the 2022 reporting period (WSP, 2023c). Per the CCR Rule, site monitoring systems are required to evaluate groundwater quality that is representative of background (i.e., groundwater that has not been affected by leakage from a CCR unit) and groundwater passing the downgradient boundary of each CCR unit in the uppermost water-bearing hydrostratigraphic unit underlying the CCR unit.

In addition to the CCR groundwater monitoring system wells, there are many non-CCR supplementary monitoring wells and extraction wells at the Site that are not part of the CCR groundwater monitoring systems but may provide useful information to the program. The extraction wells were installed to support the seepage collection systems at the FAP and BAP as part of interim response measures. Some extraction wells are inactive in terms of extraction operations, but the well can be monitored to assess groundwater conditions. In 2024, five supplementary wells were installed downgradient of the FAP to monitor groundwater conditions in the vicinity of a new Evaporation Pond and are identified as MW-80A, MW-81A, MW-82A, MW-83A, and MW-84A. An additional sixth well (MW-85C) was installed within the vicinity of the Evaporation Pond to evaluate the C-aquifer. **Table 1-2** and **Figure 1-2** identify the supplemental and extraction wells.

1.2.1 MONITORING SYSTEM DESCRIPTION

1.2.1.1 BACKGROUND GROUNDWATER MONITORING WELLS

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

Per the CCR Groundwater Monitoring System Certification Reports (Montgomery & Associates, 2017; WSP, 2023c), the following monitoring wells are designated as "background monitoring wells" for the respective geologic and hydrostratigraphic conditions underlying Cholla:

Background Wells for the FAP and BAP (Little Colorado River, Tanner Wash, and other wash Alluviums): The upgradient boundary of the FAP rests on a thick section of the Moenkopi Formation; there is no saturated alluvium present in the area upgradient from the FAP boundary. Therefore, background well M-64A was installed west of the plant in the Little Colorado River floodplain to serve as a background well for the FAP. Hydrogeologic conditions at the BAP also prevented installation of an upgradient background well, similar to the FAP; therefore, M-64A also serves as the background well for the BAP. Notably, the BAP, in the Tanner Wash Alluvium, discharges to and is hydraulically connected to the Little Colorado River Alluvium. Travel time calculations performed for the initial CCR Groundwater Monitoring System Certification Report (Montgomery & Associates, 2017) indicated that M-64A is located far enough downgradient from the FAP and BAP to represent unimpacted groundwater; however, the location of the background well is not ideal and has the potential to promote spatial heterogeneity issues in statistical data analysis.

Background Wells for the BAM (Coconino Sandstone): The groundwater flow direction in the Coconino Sandstone Aquifer in the vicinity of the BAM is to the north-northwest. Background well M-54 is installed in the Coconino Sandstone on the southeast (upgradient) side of the BAM.

Due to the natural heterogeneity of the geologic and hydrogeologic conditions underlying Cholla, background constituent concentrations are expected to be spatially heterogeneous (varying) across the Site. The Site is also expected to exhibit both spatial and temporal heterogeneity attributable to local climatic regimes, potential leakage from surface water recharge sources, and potential operational activity at the Site. The groundwater monitoring well networks, respective to sampling coverage and frequency, appear to adequately represent the spatial and temporal heterogeneity, pending further review.

1.2.1.2 DOWNGRADIENT CCR MONITORING WELLS

Per the CCR Groundwater Monitoring System Certification Reports (Montgomery & Associates, 2017; WSP, 2023c), a total of 22 CCR compliance wells are in place at the Site to monitor the downgradient groundwater conditions of each CCR unit (**Table 1-2**). Downgradient boundary wells assess for leakage from each CCR unit, and the remaining downgradient wells evaluate the nature and extent of groundwater conditions associated with identified releases from CCR units. Fifteen of the monitoring wells are installed in either the Little Colorado River or Tanner Wash Alluviums. Four monitoring wells are screened in weathered portions of the Moqui either with or without some interception of overlying alluvium. The three remaining downgradient wells are completed in the Coconino Sandstone. The identifications for some monitoring wells include an "A","M" or "C". The identifications ending with "A" designations are screened in the alluvium, those ending with "M" designations are screened in

the locally saturated upper layer of the Moqui and those ending with "C" are screened in the Coconino Sandstone. The grouping of monitoring wells, spatial density, and coverage of the monitoring well network is adequate based on the current understanding of the geological and hydrostratigraphic conditions (**Figure 1-2**). The wells are grouped by their respective CCR unit, as described below:

FAP Downgradient Boundary and Downgradient Wells (Alluvium and Moenkopi Moqui): The groundwater flow direction in the alluvium downgradient of the FAP dam (i.e., the waste boundary) is west-southwest. The alluvial thickness in that area is limited; in some places it may be up to 50 ft thick but in others it is non-existent. Three downgradient boundary wells are designated for the FAP boundary, W-123R, M-50A, and M-51A. In 2018, three wells were installed to evaluate the nature and extent of groundwater conditions downgradient of the FAP. The wells are identified as MW-65A, MW-66A, and MW-67A.

BAP Downgradient Boundary and Downgradient Wells (Tanner Wash Alluvium and Moenkopi Moqui): The groundwater flow direction in the alluvium underlying the BAP is generally to the southwest along Tanner Wash; however, there is a radial component of groundwater flow toward the east-southeast due to hydraulic head from the BAP. As of the end of the reporting period, nine downgradient boundary monitoring wells are designated for the BAP: M-52A, M-53A, MW-71A, MW-72M, MW-73A, MW-74M, W-305, W-306, and W-314. Monitoring wells M-53A, W-305, W-306, and W-314 are screened in the Tanner Wash Alluvium based on the available well log information. A drilling investigation conducted in 2019 indicated that M-52A may partially be completed in the weathered upper portion of the Moqui (Wood, 2020a). MW-71A, MW-72M, MW-73A, and MW-74M were installed in 2021 as downgradient boundary wells to investigate geochemical conditions as part of the BAP pre-design studies (WSP, 2023c). Four additional downgradient monitoring wells (MW-76A, MW-77A, MW-78A, and MW-79A) were installed in 2021 to evaluate the nature and extent of groundwater conditions downgradient of the BAP (WSP, 2023c).

BAM Downgradient Boundary Wells (Coconino Sandstone): The uppermost hydrogeologic unit underlying the BAM is the C-aquifer in the Coconino Sandstone, which flows towards the north-northwest in that vicinity. Three downgradient boundary monitoring wells were installed to monitor the quality of groundwater passing the waste boundary of the BAM. The wells are named M-59, M-60, and M-61, and are completed in the Coconino Sandstone.

1.2.2 IMPLEMENTED CHANGES TO MONITORING SYSTEM

No changes to the current certified monitoring system occurred during the reporting period. Additional supplemental monitoring wells were installed in 2024 related to the installation of the Evaporation Pond, which is a non-CCR unit. Each of these supplemental monitoring wells is included in Site potentiometric surface contour maps. Baseline monitoring data from these wells is tabulated in Appendices A and B.

2 SUMMARY OF KEY ACTIONS COMPLETED

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

- *Documentation of Groundwater Monitoring Activities Conducted in 2023* – 40 CFR §257.90(e) requires that an Annual Groundwater Monitoring and Corrective Action Report for applicable sites be prepared for existing CCR units annually on January 31 of the following year. During the reporting period, the *Annual Groundwater Monitoring and Corrective Action Report for 2023* was prepared (WSP, 2024b), placed in the facility's operating record, and posted to APS's CCR information webpage in accordance with 40 CFR §257.105(h)(1) and 40 CFR §257.106(h)(1).
- *Continuation of the Detection Monitoring Program at the BAM* – 40 CFR §257.94(b) requires the continuation of detection monitoring at a semi-annual frequency for Appendix III constituents at CCR units where statistical analysis of Appendix III constituent data do not indicate a statistically significant increase (SSI) over background. Section 3.2 summarizes detection monitoring activities conducted during the reporting period.
- *Completion of Statistical Analyses of Appendix III Constituents at the BAM* – For CCR units in the detection monitoring program, 40 CFR §257.93(h) requires the evaluation of Appendix III data for constituents in groundwater for SSIs over background no later than 90 days after completing the associated sampling and analysis. During the 2024 reporting period, two statistical analyses event were performed using updated analytical data for Appendix III constituents at BAM monitoring wells. The statistical analyses are summarized in Section 3.3.1.
- *Completion of Statistical Analyses to Evaluate Background Threshold Values (BTVs)* - In accordance with the Statistical Data Analysis Work Plan (SDAWP; WSP, 2023d) background limits should be updated periodically to account for intrinsic temporal variations in groundwater conditions and maintain an adequate statistical power. The statistical analyses are summarized in Section 3.3.1 for the BAM and 3.3.2 for the FAP and BAP.
- *Preparation of a Semi-annual Progress Report on Remedy Selection for the FAP and the BAP* – 40 CFR §257.97(a) requires the preparation of semi-annual reports, which document the progress of remedy selection for CCR units that have impacted groundwater. During July of the 2024 reporting period, the ninth semi-annual report was prepared to fulfill the requirement (Section 4.6). The tenth semi-annual report on progress of remedy selection is include herein. (Section 4.6).
- *Characterization of the Nature and Extent of Releases from the FAP and the BAP* – 40 CFR §257.95(g)(1) requires characterization of the nature and extent of releases from CCR units where one or more Appendix IV constituents exceed groundwater protection standards (GWPSs) at statistically significant levels (SSLs). Section 4.2 summarizes characterization activities performed during the reporting period to address the requirement.
- *Completion of a Fluoride Split-Sampling Laboratory Analysis* – A split method analysis was performed on data collected during the November 2023 monitoring event and the results were reported during the 2024 reporting period. The precision and accuracy of the split sampling data is presented in a Technical Memorandum including recommendations based on the results of the evaluation. The split method analysis is summarized in Section 3.1.1. and included as an appendix to this report. The split method analysis is summarized in Section 3.1.1.
- *Interim Response Measures at the BAP* – Interim response measures performed at the BAP during the reporting period consisted of expansion and documentation of the BAP seepage collection system and troubleshooting of the system. Interim response measures at the BAP performed during the reporting period are further detailed in Section 4.5.2.
- *Installation of Supplementary Monitoring Wells at FAP* – Six supplementary monitoring well were installed downgradient of the FAP related to the installation of the Evaporation Pond, a non-CCR unit. The supplementary wells allow for further evaluation of the nature and extent of groundwater conditions downgradient of the FAP. Five wells are installed with the screen completed in the alluvial aquifer (MW-80A,

MW-81A, MW-82A, MW-83A, and MW-84A) and one well installed with the screen completed in the C-aquifer (MW-85C). This report has been included in **Appendix A**.

3 GROUNDWATER MONITORING PROGRAM

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

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

The second phase of groundwater monitoring focuses on the constituents listed in Appendix IV of the CCR Rule. The Appendix IV constituents generally are less mobile and typically occur at lower concentrations in groundwater than the Appendix III constituents. Concentrations of Appendix IV constituents in downgradient boundary wells are compared to established GWPSs. The GWPSs, established for Appendix IV constituents only, are the higher of either the federal Safe Drinking Water Act Maximum Contaminant Level (MCL), alternative human health risk-based GWPSs established in the CCR Rule, or the BTV calculated for each constituent. **Tables 3-1** and 3-2 summarizes the Appendix IV constituent GWPSs established for Site CCR units.

3.1 PROGRAM STATUS

Based on available Appendix III concentrations and statistical analyses completed as of the end of the 2024 reporting period for the BAM, the unit is currently in the detection groundwater monitoring program. The FAP and BAP are in corrective action and continue to be monitored as part of the assessment groundwater monitoring program.

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

3.1.1 PROBLEMS ENCOUNTERED AND RESOLUTION

Problems encountered during the 2024 reporting period and associated resolutions include:

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

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

use of USEPA Method 300.0 and considering a change in the contracted laboratory if Eurofins continued to demonstrate performance errors.

Subsequently, during SA1 2024, Eurofins was unable to meet the required detection limit (GWPS) for cobalt (0.006 milligrams per liter [mg/L]) at BAP downgradient boundary well MW-72M, where the result was <0.01 mg/L. Cobalt concentration during the second semi-annual 2024 event was 0.0025 mg/L, which is less than the GWPS and consistent with recent cobalt concentrations in MW-72M. Additionally, an elevated reporting limit (0.1 mg/L) was reported for beryllium at locations in the vicinity of the BAP and the samples were re-analyzed by Eurofins. The re-run results indicated several intermediate detections, raising concerns about their reliability, as they are inconsistent with historical data at these locations and subsequent SA2 2024 results, which were reported as non-detects less than the GWPS of 0.004 mg/L.

The recurrence of DF and RL issues during the first semi-annual 2024 monitoring event, coupled with significant delays in laboratory report delivery, prompted APS to transition to an alternative laboratory. As of the second semi-annual 2024 monitoring event, Pace Analytical Laboratories (Pace) performed the required analysis for CCR groundwater monitoring.

3.1.2 GROUNDWATER MONITORING PROGRAM TRANSITIONS

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

3.1.3 ALTERNATIVE SOURCE DEMONSTRATIONS

An Alternative Source Demonstration (ASD) is in place for cobalt at FAP and lithium at BAP. No Alternative Source Demonstrations (ASDs) or further updates to existing ASDs were performed during the reporting period.

3.2 MONITORING DATA COLLECTED

Two semi-annual CCR groundwater monitoring events and a single resampling event were conducted at Cholla during the reporting period in accordance with the Site Sampling and Analysis Plan (SAP) (Wood, 2022). The SAP documents the methods and procedures used to conduct groundwater sampling, analyze collected samples for CCR constituents, and assess associated analytical data for quality assurance purposes.

The first semi-annual groundwater monitoring event took place in April 14 through May 28, 2024 (SA1 2024) and the second semi-annual monitoring event took place in October 17 through November 14, 2024 and December 10, 2024 (SA2 2024). A resampling event at the BAM took place on July 1, 2024 as part of a 1 of 2 resampling strategy for boron at M-60 and a 1 of 3 resampling strategy for chloride and sulfate at M-59 (further discussed in Section 3.3.1). The following sections summarize results of the monitoring activities conducted in 2024. **Table 3-2** identifies when monitoring occurred, and which units were monitored. During the reporting period, detection monitoring included evaluation of collected samples for Appendix III constituents on a semi-annual basis (40 CFR §257.94[b]). At a minimum, assessment monitoring included evaluation of collected samples for all Appendix IV constituents on an annual basis (40 CFR §257.95[b]) and detected Appendix IV constituents and all Appendix III constituents on a semi-annual basis (40 CFR §257.95[d][1]). To simplify groundwater monitoring logistics, CCR compliance wells in assessment monitoring were evaluated for all Appendix IV constituents on a semi-annual basis in 2024.

Supplementary water samples collected during the reporting period included surface water samples collected from the BAP and FAP units. Results of this analysis is presented in **Appendix C**.

3.2.1 WATER LEVEL MONITORING

Figure 3-1 presents a potentiometric surface contour map created using water-level measurements collected from April 14 through 18, 2024 (SA1 2024). **Figure 3-2** presents a potentiometric surface map created using water-level measurements collected from October 17 through November 14, 2024 (SA2 2024). Groundwater elevations

collected from Site monitoring wells are evaluated. The estimated flow directions inferred from the groundwater elevation data are depicted on the figures. As indicated, groundwater in the alluvium appears to flow south to southwest from the FAP and to the south through Tanner Wash from the BAP, towards the Little Colorado River, where groundwater generally flows to the west (consistent with surface water flows). Groundwater in the C-aquifer underlying the BAM flows to the north.

Appendix D presents hydrographs of groundwater elevations measured at CCR compliance wells over time. The groundwater elevations measured during the reporting period are relatively stable and generally consistent with historical observations although there are some increases in water levels downgradient of the FAP. In general, seasonal fluctuations are apparent from the water-level data, with higher water levels occurring in the spring (e.g., March through May) and lower water levels occurring in late summer through fall (e.g., August through October).

Notable observations for groundwater conditions at each CCR unit are discussed below.

FAP: A fairly steep hydraulic gradient exists at the outer edges of the FAP dam where no cutoff wall is present. The hydraulic gradient appears slightly steeper at the left abutment versus the right abutment. Farther downgradient, the hydraulic gradient begins to flatten with increased distance from the FAP, as indicated by downgradient monitoring wells (e.g., M-46A, MW-83A, MW-67A, MW-63A). Supplementary well W-127 was noted to be dry in SA1 and SA2 2024 (the well is typically dry) and suggests a limited saturated thickness of the alluvial aquifer further downgradient (south/southwest) of the FAP. Similarly, new supplementary well MW-82A was also dry in SA2 2024 and suggests the same limited saturated thickness. Closer to the Little Colorado River, supplementary well M-49A has regularly been dry in recent years; however, a small amount of water (less than 0.4 ft and so insufficient for collecting a sample) was detected in the well during SA1 2024 and then it was dry again in the SA2 2024 event. The presence of water in M-49A may be attributed to a regional increase in alluvial aquifer levels associated with a decrease in Cholla production well pumping and a resultant upwelling of groundwater from the C-aquifer in areas where the Moqui is thin or not present. CCR compliance well MW-67A is located within the Evaporation Pond footprint and during construction the well casing was modified to accommodate construction activities. Therefore, the water level in SA1 2024 was not converted to an elevation due to the top of casing elevation being unknown for this event. Further modifications occurred during construction activities and the well's measuring point was re-surveyed in November 2024, which is reflected in the SA2 2024 groundwater elevation.

BAP: Groundwater elevations at M-53A (located at the western abutment of the southern BAP dam) and W-314 (located downgradient of the eastern side of the BAP dam) are approximately 10 ft higher than groundwater elevations in wells located towards the central portion of the southern BAP dam (i.e., M-52A, W-305, and W-306), indicating a steep hydraulic gradient exists at the toe of the BAP dam. CCR compliance well MW-76A, installed to delineate impacts downgradient of the BAP, was dry upon drilling and installation in May 2021 and is still noted to be dry during the 2024 semi-annual sampling events.

BAM: Groundwater elevations in the C-aquifer monitoring wells continue to exhibit seasonal fluctuations, with higher elevations measured in spring, and indicate a slightly increasing trend over time.

3.2.2 GROUNDWATER FLOW RATE ESTIMATION

The CCR Rule requires that groundwater flow rates beneath CCR units be estimated during each monitoring event. The water levels measured during SA1 and SA2 2024 (**Figures 3-1 and 3-2**) were used to calculate the direction and magnitude of the hydraulic gradient in the vicinity of each unit using a spreadsheet tool available on the USEPA website (USEPA, 2014). Darcy's Equation for flow through porous media was then used with Site data (where available) and/or literature-based hydraulic conductivity and effective porosity values for hydrogeologic units to estimate average linear groundwater flow velocities. The effective porosity value (0.26) is calculated from the specific yield ranges reported by Morris and Johnson for the alluvium-Moqui hydrostatic units (Morris and Johnson, 1967). **Table 3-4** identifies the wells, hydraulic conductivities, and porosities used in the analysis and presents the calculated groundwater flow directions, gradients, and flow velocities.

FAP: The hydraulic gradient and flow direction downgradient of the FAP in the alluvial aquifer were relatively stable (0.024 and 0.016 ft per ft [ft/ft] for the SA1 and SA2 2024 events, respectively). The direction of groundwater

flow was to the southwest towards the Little Colorado River (233 and 238 degrees from north for SA1 and SA2 2024, respectively). The corresponding groundwater flow rates for the monitoring events were 0.37 and 0.25 ft per day (ft/d) for SA1 and SA2 2024, respectively.

BAP: The hydraulic gradient downgradient of the BAP in the Tanner Wash Alluvium was stable during the reporting period at 0.015 and 0.013 ft/ft for the SA1 and SA2 events, respectively. The direction of groundwater flow from the BAP was south (188 and 191 degrees from north for SA1 and SA2 2024, respectively), and the corresponding groundwater flow rates for both the SA1 and SA2 2024 events was 0.050 ft/d.

BAM: The hydraulic gradient and flow direction underlying the BAM in the C-Aquifer were fairly stable during the reporting period. The magnitude of the hydraulic gradient for SA1 and SA2 2024 was 0.011 and 0.0085 ft/ft, respectively. The direction of groundwater flow was north (4.89 degrees from north for SA1 2024 and 345 degrees from north for SA2 2024). The corresponding groundwater flow rates for SA1 and SA2 2024 were1.3 and 1.0 ft/d, respectively.

3.2.3 SAMPLE COLLECTION

During the 2024 reporting period, groundwater samples were collected from CCR monitoring wells during May 16 through May 28, 2024 (SA1 2024) and October 17 through November 14, 2024 and December 10, 2024 (SA2 2024). Groundwater samples were collected, labeled, preserved, and shipped per the SAP (Wood, 2022). In accordance with 40 CFR §257.93(i), which requires the measurement of total recoverable metals, groundwater samples collected for statistical analysis of Appendix III and Appendix IV constituents were not field filtered prior to analysis. Pursuant to the SAP, quality control samples (i.e., field duplicates, field blanks, and extra sample volume for matrix spike samples) were collected during each groundwater monitoring event. The samples are noted on associated chain-of-custody documentation.

3.2.4 SAMPLE ANALYSIS AND DATA VALIDATION

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

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

Following receipt of final laboratory reports of analysis, the reports and associated sample data collected during detection and assessment monitoring were evaluated for quality assurance purposes. The scope of the review was a USEPA Stage 2A validation. **Appendix F** presents the *2024 Data Validation Reports,* which document the reviews. All data were deemed usable. The following are key observations related to data usability:

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

  Modifications to the laboratory detection limits (RL and MDL) are not uncommon but will require evaluation on a case-by-case basis during statistical analysis. If the MDL must consistently be used as the limit of detection in Appendix III or Appendix IV statistical analyses to maintain compliance with applicable

standards, it may indicate that the BTV is not achievable with the laboratory's current analytical capabilities and based on site samples. In such cases, a re-evaluation of the BTV may be warranted.

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

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

3.2.5 SAMPLE RESULTS

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

3.3 STATISTICAL ANALYSIS OF MONITORING DATA

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

3.3.1 BTV UPDATES

Routine updates of the BTVs at the BAM, BAP, and FAP were performed during the 2024 reporting period in accordance with the SDAWP (WSP, 2023d) to ensure BTVs represent current background conditions.

A statistical evaluation to update the BTVs for the BAM for the Appendix III constituents was performed in October 2024 and is included in **Appendix G**. The BTV update utilizes constituent data through May 2024 from background well, M-54. This statistical evaluation was performed in accordance with the SDAWP (WSP, 2023d). Appendix III constituent BTVs for the BAM were increased slightly as of November 2024 (**Appendix G**) excluding fluoride which remained the same and pH which was lowered. Updated BTVs were used for comparison of SA2 2024 data and are presented in **Table 3-2**.

A statistical evaluation to update the BTVs calculated for each Appendix IV constituent was performed in January 2025 and is included in **Appendix H**. A statistical evaluation was performed for the BAP and FAP to update the BTVs incorporating Appendix IV constituent data through May 2024 from background well, M-64A. The updated BTVs were used to evaluate and update the applicable GWPS, as necessary. The BAP and FAP are currently in corrective action and the statistical evaluation was performed in accordance with the SDAWP (WSP, 2023). The statistical evaluation of the BTVs associated with the BAP and FAP is included in **Appendix H**. The BTVs for the BAP and FAP remain as the applicable GWPS for lithium. The lithium BTV increased from 0.310 to 0.418 mg/L.

The prior ASD prepared for lithium at the BAP was performed using a BTV and GWPS value for lithium of 0.31 mg/L. The conditions of the ASD remain unchanged, considering the updated GWPS, with natural variation in the aquifer still present and pointing to the existence of spatial heterogeneity within the alluvial system. The remaining Appendix IV constituents are subject to the USEPA's promulgated MCL or the risk-based alternative GWPS. All updated BTVs were used for comparison of SA2 2024 data and are presented in **Table 3-2**.

3.3.2 EVALUATION OF APPENDIX III CONSTITUENT DATA

The BAM was the only Site CCR unit that remained in the detection monitoring program as of the beginning of 2024 and required statistical evaluations of Appendix III constituent data during the reporting period.

A statistical analysis of Appendix III constituent data collected at the BAM through November 2023 was completed in April 2024 (**Appendix I**). The statistical analysis indicated no SSIs over Appendix III constituent BTVs.

A statistical analysis of Appendix III constituent data collected at the BAM through July 2024 was completed in December 2024 (**Appendix I**). Initial apparent exceedances were detected of chloride and sulfate at M-59 and boron at M-60 in April 2024. In accordance with the SDAWP developed for the Site (WSP, 2023d), APS implemented a 1 of 2 resampling strategy for boron and a 1 of 3 resampling strategy for chloride and sulfate. The resampling event was conducted in July 2024 to address the initial exceedances. The resampling results for boron, chloride, and sulfate in July 2024 were all below their respective BTVs.

As of the end of the 2024 reporting period, APS continues detection monitoring at the BAM in accordance with 40 CFR §257.95(f).

3.3.3 EVALUATION OF APPENDIX IV CONSTITUENT DATA

Review of Appendix IV monitoring results are consistent with historical findings. No additional Appendix IV constituents are reported to exceed the GWPS during 2024, excluding the anomalous detections of beryllium in SA1 2024 (discussed in Section 3.1.1). As such, no changes to the assessment of corrective measures and remedy selection is warranted at this time.

4 CORRECTIVE ACTION PROGRAM

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

4.1 PROGRAM STATUS

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

Summaries of corrective action program activities performed during the reporting period are presented in the following sections.

4.2 CHARACTERIZATION OF POTENTIAL RELEASES FROM CCR UNITS

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

Initial efforts to address the requirements of 40 CFR §257.95(g)(1) were documented in the *Hydrogeologic Investigation of the Fly Ash Pond and Bottom Ash Pond* (Wood, 2020b). However, due to the duration required to adequately characterize complex groundwater impacts, work supporting characterization of potential releases from CCR units is ongoing. Activities conducted during the reporting period to address CCR Rule release characterization requirements downgradient of the FAP and BAP include:

- The collection of groundwater quality data from FAP and BAP monitoring wells (Section 3.2).
- Delineation of the nature and extent of releases from the FAP and BAP in the form of updated plume maps for SA1 and SA2 2024, using the applicable GWPS at the time (**Figures 4-1** through **4-10**).

Findings from the characterization activities are summarized as follows:

Fly Ash Pond (FAP) – Contaminants of concern (COCs) present at concentrations above respective GWPSs in groundwater downgradient include arsenic, fluoride, lithium, and molybdenum. An updated GWPS for lithium (0.418 mg/L) has been applied to **Figure 4-6** for SA2 2024. Specific findings at the FAP in 2024 are as follows:

- Arsenic, fluoride (SA2 2024 only), lithium, and molybdenum all exceeded the respective GWPSs in groundwater beneath downgradient off-site property and are defined by wells on APS property south of the FAP.
- Arsenic concentrations remained stable in SA1 and SA2 2024.
- Fluoride concentrations in all FAP downgradient boundary and downgradient wells decreased to below the GWPS of 4 mg/L During the SA1 2024 sampling event, including: M-51A (2.2 mg/L), M-66A (0.57 mg/L), W-123R (3.4 mg/L) and W-126R (3.4 mg/L). During the SA2 2024 sampling event concentrations at downgradient boundary wells M-51A and W-123R again exceeded the GWPS of 4 mg/L, while wells further downgradient,

W-126R and M-66A, remained below the threshold. Continued monitoring is necessary to evaluate the fluctuations in fluoride downgradient of the FAP.

- The extent of the lithium plume downgradient of the FAP decreased from SA1 to SA2 2024 with only four locations (MW-65A, MW-66A, W-126R, and W-123R) exceeding the GWPS of 0.418 mg/L, while wells further downgradient, MW-67A and MW-84A remained below the threshold. The reduction is attributed to the increase in the GWPS value for lithium in SA2 2024.
- Molybdenum concentrations continue to decrease downgradient of the FAP, with M-51A, W-123R, MW-65A all decreasing to below the GWPS in SA2 2024. Only one supplementary well (W-126R at 0.128 mg/L) exceeded the GWPS in SA2 2024.
- Surface water samples taken in SA2 2024 indicate that in addition to the four groundwater COCs (arsenic, fluoride, lithium, and molybdenum), pond water in the FAP also exhibits high levels of antimony (0.114 mg/L), beryllium (0.0048 mg/L), cobalt (0.0123 mg/L), and selenium (0.259 mg/L) (as shown in **Appendix F**).

Bottom Ash Pond (BAP) – Cobalt is present at concentrations above the GWPS in groundwater downgradient and is the only COC for the BAP. The inferred extent of cobalt is depicted on **Figures 4-9** and **4-10**.

- Cobalt currently exceeds the GWPS in off-site groundwater south and east of the BAP. The cobalt plume is delineated to the southern downgradient direction by MW-77A and MW-78A, and to the east by MW-74M.
- Samples collected during the SA1 and SA2 2024 sample events indicate cobalt concentrations in pond water of the BAP are lower than concentrations observed in groundwater (as shown in **Appendix F**), suggesting a natural source of cobalt within the formation may be the source of the observed SSLs of cobalt. Although the source of the cobalt at the BAP may be naturally occurring, APS has not prepared an ASD and is proceeding with groundwater corrective measures at this time. Should additional information become available suggesting the concentrations of cobalt are not the result of a release from the BAP, APS will document an alternate source and discontinue efforts toward remedy selection.

4.3 INTERIM RESPONSE MEASURES

While remedy selection progressed during the reporting period (Section 4.4), APS implemented several response measures at the FAP and BAP to limit groundwater impacts. Data collected through the interim response measures are also used to inform an assessment of the effectiveness of potential remedial technologies. The interim response measures implemented during the reporting period are outlined in the *Risk Mitigation Plan* (Wood, 2020c) and summarized below.

Improvements to Seepage Intercept Collection Systems at the BAP – The BAP Seepage Intercept Collection Systems were upgraded in 2024 to more effectively capture seepage from the BAP before it discharges to groundwater. At the end of 2024, the BAP Seepage Intercept Collection Systems include extraction wells TDX-03 through TDX-05 (identified as BSX-01 through BSX-03 in previous reporting documentation); seepage intercept trenches located at the Toe Drain System, Petroglyph Seep sumps, and Tanner Wash sumps; and extraction wells located at the B-226/TWX area. The upgrades included plumbing TDX-03 through TDX-05 and installing pumps; installing drain rock and seepage collection piping along the West Abutment; and upgrading piping, flow meters, electrical, and instrument controls at all existing extraction wells and collection sumps. Collection systems at the BAP were plumbed to enable discharge to a holding tank for later connection to the Evaporation Pond south of the FAP (currently under construction). All construction activities were completed, and the system was commissioned in December 2024. Record drawings and construction reporting are currently being prepared and will be completed in 2025.

Operation of Seepage Intercept Collection Systems and Mass Removal Estimates for FAP and BAP – The existing seepage intercept collection system at the FAP was maintained and operated, without interruption throughout 2024. The existing seepage intercept collection systems at the BAP were operating for a majority of 2024. However, due to construction of system improvements which took place from January through December 2024, there were periods where portions of the system were not operating, or flow measurement equipment was offline. As a result, data at the BAP is not available for all of 2024 and therefore, collected data is only a partial representation of the mass removal from the system in 2024 starting in July 2024 when all of the remote telemetry systems were online. An estimated total mass removed for each of the Appendix IV constituents (excluding radionuclides) was calculated for the operating systems, based on available 2024 data for the FAP and

BAP. The estimated contaminant mass removed is based on the totalized annual flow extracted from the system (for the FAP) and monthly flow values for the period of record (for the BAP) and average constituent concentrations measured. **Tables 4-1**, and **4-2** show the estimated contaminant mass removed from the system based on calculated data. The estimated combined total mass of Appendix IV constituents removed at the BAP and FAP was 280.9 pounds (lbs) and 286.9 lbs, respectively. A total of 567.9 lbs of Appendix IV constituents was removed in 2024.

4.4 PROGRESS ON REMEDY SELECTION FOR THE FAP AND BAP

In response to GWPS exceedances at the FAP and BAP and pursuant to 40 CFR §257.96(a), an Assessment of Corrective Measures (ACM) was prepared in 2019 (Wood, 2019b) to evaluate the performance of several combined corrective measures to address groundwater impacts resulting from the FAP and BAP. Since completing the ACM, several evaluations and pre-design studies to support the selection and design of remedies for the FAP and BAP have been conducted (Wood, 2020a; Wood, 2021; WSP 2023b and **Appendix J**). Updates on the status of these studies and progress on remedy selection are presented below.

4.4.1 CORRECTIVE MEASURES PRE-DESIGN STUDIES

The following are summaries of the evaluations and pre-design studies completed during the 2024 reporting period:

Groundwater Model Update - The work to update to the existing numerical groundwater model for the Site to assist in the evaluation and selection of remedies for the FAP and BAP has been completed and a technical memorandum was produced in the 2024 reporting period, which documented the groundwater model. The *Predictive Transport Modeling Results for Coal Combustion Residuals Constituents of Concern Technical Memorandum* dated February 14, 2024 is included as **Appendix J**.

Additional corrective measures pre-design studies planned for 2025 are discussed in Section 5.

4.4.2 REMEDY SELECTION REPORTS FOR THE FAP AND BAP

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

4.5 IMPLEMENTATION OF RISK MITIGATION PLAN SUPPORTING ALTERNATIVE CLOSURE

On November 30, 2020, APS submitted a *Demonstration Supporting a Site-Specific Deadline to Initiate Closure for the FAP and the BAP* to the USEPA pursuant to 40 CFR §257.103(f)(2). The demonstration included a *Risk Mitigation Plan* (Wood, 2020c) that identified risk mitigation activities that were to be routinely documented in the Annual Report.

During the reporting period, weekly inspections of the FAP and BAP seepage collection systems were performed by APS personnel. At the time of the inspections, the area around the collection systems were also inspected for the presence of new seepage. During the annual dam inspections that occurred on October 14, 2024, the entire perimeter of the base of the FAP and BAP dams was inspected for indications of both new and previously observed seepage. No new seepage was identified. Weekly and annual inspections will continue in 2025.

Quarterly reviews of the online Arizona Department of Water Resources (ADWR) Wells 55 database were also completed to assess if groundwater production wells were installed in impacted aquifers downgradient of the FAP or BAP. For the reporting period, ADWR Wells 55 database reviews occurred on January 12, April 3, July 10, and October 10. The quarterly reviews are documented in **Appendix K**. No new well owner coordination was required during the reporting period. Quarterly reviews of the ADWR Wells 55 database will continue in 2025.

4.6 SEMI-ANNUAL PROGRESS REPORT ON REMEDY SELECTION FOR THE FAP AND BAP

40 CFR §257.97(a) requires the preparation of semi-annual reports, which document the progress of remedy selection for CCR units that have potentially impacted groundwater until the remedy is selected. Accordingly, a semi-annual report was prepared on July 15, 2024, which describes the progress of remedy selection for the FAP and BAP and is presented as **Appendix L**.

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

4.7 CCR UNIT CLOSURE ACTIVITIES

A demonstration supporting a Site-specific deadline to initiate closure per 40 CFR §257.103(f)(2) was submitted by APS to the USEPA on November 30, 2020. The USEPA assessed the submittal as complete on January 11, 2022, but had not made a determination regarding the demonstration as of December 31, 2024. APS placed an *Annual Progress Report Documenting the Continued Lack of Alternative Capacity and Progress Towards Closure of the FAP and BAP* (Annual Progress Report) (**Appendix M**) in the facility operating record on November 22, 2024. During the reporting period, APS progressed CCR unit closure activities as outlined in the following sections.

4.7.1 BAP CLOSURE

The closure strategy for the BAP states that the unit will be closed by removal. CCR will be excavated from the BAP and will be placed in the BAM.

Detailed design of the closure plan for the BAP progressed during the reporting period and includes dewatering the decant water pond and bottom ash, excavating bottom ash and impacted soils with placement of these materials in the BAM, and breaching the BAP dam. Design drawings were developed in anticipation of contractor procurement activities scheduled for early 2025.

4.7.2 FAP CLOSURE

The closure plan for the FAP (AECOM, 2020) states that the unit will be closed in place and capped with an evapotranspiration cover. Dewatering of the unit must occur prior to capping to safely construct the final cover system. During the reporting period, work was progressed to evaluate dewatering strategies so that the closure plan can be updated to address how dewatering will be accomplished. Closure activities highlighted in the *Annual Progress Report Documenting The Continued Lack of Alternative Capacity and Progress Towards Closure of the FAP and BAP* (**Appendix M**) include:

- Minimization of discharges to the FAP with ongoing water level monitoring. The level of the FAP declined by 1.2 ft between December 2023 and November 2024.
- Relocation of bottom ash from the BAM and stockpiling at the FAP for future use of bridge lift material. The relocation began in July 2023 and will continue through June 2025.

- Assessment of RWI Pittboss mechanical enhanced evaporator operation. The evaporators began operating in the FAP in August 2022 but were removed in February 2024 due to continued tethering issues.
- Detailed design of the FAP closure strategy has progressed. A stormwater management system, including multiple lined evaporation basins that will collect and retain non-contact stormwater run-on and runoff, was designed. Capping design continued with test pitting in the vicinity of planned evaporation basins to assess soil suitability and modeling of soil properties to obtain final design parameters for a layered evapotranspiration cap. The cap will consist of erosion protection, infiltration soil, compacted clay, and capillary break layers. Design drawings were developed in anticipation of contractor procurement activities scheduled for early 2025.
- Dewatering drainable porewater at the FAP using extraction wells. Preliminary assessment of engineering control measures to remove drainable porewater within the waste sluiced to the FAP began in 2022 and continued through 2024. The work included the installation and operation of multiple dewatering test wells and a pilot EcoVAP Evaporative Matrix Technology in the FAP. The results of testing will assist in refining the FAP closure plan and will be updated to demonstrate closure performance requirements.
- Design of a temporary evaporation pond constructed within the FAP footprint. FAP decant water will be pumped into a high density polyethylene-lined evaporation pond where it can be evaporated during closure .

Planned activities for 2025 include installation of a horizontal well into the FAP to aid with the removal of pore water.

5 KEY ACTIVITIES FOR 2025

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

- *Preparation of an Annual Groundwater Monitoring and Corrective Action Report for 2025* – Per 40 CFR §257.90(e), an annual report documenting groundwater monitoring and corrective action activities in 2025 will be prepared no later than January 31, 2026.
- *Continued Detection Monitoring at the BAM with Ongoing Statistical Evaluation for SSIs over Background* – Per 40 CFR §257.94(b), detection monitoring (including analysis of collected samples for Appendix III constituents) will continue on a semi-annual basis. On an ongoing basis, it will be determined whether there has been an SSI over background at the CCR units undergoing detection monitoring within 90 days of sampling and analysis (40 CFR §257.93[h][2]).
- *Continued Assessment Monitoring at the BAP and FAP* – While corrective action evaluation progresses at the BAP and FAP, assessment monitoring (including analysis of collected samples for Appendix III and Appendix IV constituents) must be conducted on a semi-annual basis per 40 CFR §257.95(b) and (d)(1).
- *Interim Response Measures at the FAP and BAP* – In tandem with additional pre-design studies, the interim response measures outlined in Section 4.4 will continue to limit the groundwater impacts from the FAP and BAP while remedies are being evaluated and selected.
- *Interim Remedial Response Evaluation* - APS has continued to progress planning and evaluation for additions to the groundwater monitoring network and interim corrective measures, including in-situ testing of amendments in the groundwater and additional extraction wells.
- *Performance Monitoring of Active Systems* - Average flow rates will continue to be monitored for each active seepage extraction system at the FAP and BAP. Additionally, total removed mass of Appendix IV constituents (minus radionuclides) will be calculated for the active seepage extraction systems at the FAP and BAP during the 2025 reporting year.
- *Remedy Selection* – APS will select remedies for the FAP and the BAP that meet the requirements of 40 CFR §257.97(b). Additionally, a remedy selection report will be prepared per 40 CFR §257.97(a).
- *Initiation of Remedial Activities* – Per 40 CFR §257.91(f), APS will begin remedial activities at the FAP and BAP within 90 days of selecting a remedy for each unit.

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

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TABLES

Table 1-1

Description of Coal Combustion Residual Units

CCR Unit/ CCR Status	Function	Operation	Size/Construction	History
Fly Ash Pond (FAP) *Active*	*Single CCR unit* - surface impoundment to store slurried fly ash from the plant.	Historically received a slurry from the plant that contained primarily fly ash but also some bottom ash, boiler slag, flue gas emission control residuals, boiler cleaning waste, oil/water separator solids, and storm water. Historically receives solids from the SEDI.	- 430 acres in aerial extent. - Total storage capacity of about 18,000 acre-feet. - Normal operating elevation of 5,083 ft amsl.	- Constructed beginning in 1976 and placed into service in 1978. - Unlined; constructed on Moenkopi bedrock and a thin veneer of alluvial sediments. - The dam is constructed of earth fill with a central clay core that extends to bedrock where bedrock is shallow. In the central portion of the dam, where bedrock is deeper, a slurry cutoff wall extends one foot into bedrock or two feet into stiff clay.
Bottom Ash Pond (BAP) *Active*	*Single CCR unit* - surface impoundment to store slurried bottom ash from the plant.	Bottom ash is pumped to the BAP as a slurry. The bottom ash settles in the east and west upstream storage cells and the water is decanted to the reservoir and ultimately siphoned back to the plant for reuse. Slurry may also contain fly ash, boiler slag, flue gas emission control residuals, sedimentation pond effluent, cooling tower blowdown, oil/water separator effluent and solids, boiler cleaning waste, and storm water. Historically received solids from the SEDI.	- 105 acres in aerial extent. - Total storage capacity of 2,300 acre-feet. - Normal operating pool elevation of 5,114 feet amsl.	- Constructed beginning in 1976 and placed into service in 1978. - Unlined; constructed on Moenkopi bedrock and Tanner Wash alluvium. - Consists of a reservoir directly behind the dam and two storage cells upstream of the reservoir. - The dam is constructed of earth fill with a central clay core that extends to bedrock where bedrock is shallow. In the central portion of the dam, where bedrock is deeper, a slurry cutoff wall extends one foot into bedrock or two feet into stiff clay.
Bottom Ash Monofill (BAM) *Active*	*Single CCR unit* - landfill for bottom ash solids excavated from the BAP.	Bottom ash that has been drained of water is excavated from the BAP and permanently stored in the BAM.	- 41 acres in aerial extent.	- Placed into service in 1999.
Sedimentation Pond (SEDI) *Closure Complete*	*Single CCR unit* - collected water from drains around plant site, including storm water, process water, plant water, and slurry from plant leaks.	Collected discharge from on-site secondary wastewater treatment plant, effluent from the oil/water separator, vehicle wash water, plant wash water, and FGD wastes from scrubber or scrubber feed tank upsets. Water collected in the SEDI was pumped to Cholla's general water sump for recycling as process water.	- 1.3 acres in aerial extent. - Total storage capacity of 10.5 acre-feet. - Maximum pond depth of 10 feet. - the top of the pond side slope was at 5,019 feet amsl	- Placed into service in 1976. - Lined with a 2-foot-thick layer of compacted clay. - Constructed below grade. - Discharges to the SEDI ceased as of October 2020. - Demolition and excavation of SEDI complete as of October 2021. - Closure complete October 2022.

Source:

GEI Consultants, Inc. 2009. Final Coal Ash Impoundment Specific Site Assessment Report, Arizona Public Service, Cholla Power Plant. Submitted to Lockheed-Martin Corporation. December 2009.

Abbreviations:

amsl - above mean sea level
BAP - Bottom Ash Pond
BAM - Bottom Ash Monofill
CCR - Coal combustion residuals
FAP - Fly Ash Pond
FGD - flue gas deulfurization
SEDI - Sedimentation Pond

Table 1-2

CCR Groundwater Monitoring Network Summary

Well	ADWR Well Index Number	CCR Compliance Well	CCR Unit	Well Designation	Hydrogeologic Unit	Date Installed	Borehole Depth [ft bgs]	Top of Casing Elevation [ft AMSL]	Ground Surface Elevation [ft AMSL]	Top of Screen [ft bgs]	Bottom of Screen [ft bgs]	Screen Length [ft]	Top Screen Elevation [ft AMSL]	Bottom Screen Elevation [ft AMSL]	Bottom Borehole Elevation [ft AMSL]
M-54	55-918646	Yes	BAM	Background	Coconino Sandstone	10/2/2015	370	5070.71	5068.21	315	365	50	4,753.21	4,703.21	4,698.21
M-59	55-918647	Yes	BAM	Downgradient Boundary	Coconino Sandstone	10/21/2015	425	5136.00	5133.86	373	423	50	4,760.86	4,710.86	4,708.86
M-60	55-918649	Yes	BAM	Downgradient Boundary	Coconino Sandstone	11/1/2015	450	5151.18	5148.69	395	445	50	4,753.69	4,703.69	4,698.69
M-61	55-918648	Yes	BAM	Downgradient Boundary	Coconino Sandstone	11/13/2015	420	5127.58	5124.95	365	415	50	4,759.95	4,709.95	4,704.95
TDX-3[1]	55-926097	No	BAP	Extraction (Inactive)	Tanner Wash Alluvium	5/4/2021	55	5045.93	5044.41	10	50	40	5,034.41	4,994.41	4,989.41
TDX-4[1]	55-926099	No	BAP	Extraction (Inactive)	Tanner Wash Alluvium	5/12/2021	130	5049.62	5048.26	104	124	20	4,944.26	4,924.26	4,918.26
TDX-5[1]	55-926100	No	BAP	Extraction (Inactive)	Tanner Wash Alluvium	5/3/2021	84	5051.13	5049.6	36	76	40	5,013.60	4,973.60	4,965.60
TWX-3	55-539097	No	BAP	Extraction	Tanner Wash Alluvium	7/8/1993	40	5060.08	5058.23	20	29	9	5038.23	5029.23	5,018.23
TWX-4	55-539098	No	BAP	Extraction	Tanner Wash Alluvium	7/8/1993	40	5060.37	5058.48	20	38	8	5038.48	5020.48	5,018.48
TWX-5	55-539099	No	BAP	Extraction	Tanner Wash Alluvium	7/9/1993	40	5061.18	5059.39	20	38	18	5039.39	5021.39	5,019.39
TWX-6R	55-539100	No	BAP	Extraction	Tanner Wash Alluvium	7/7/1993	20	5060.38	5058.61	20	38	18	5038.61	5020.61	5,038.61
TWX-7R	55-539101	No	BAP	Extraction	Tanner Wash Alluvium	7/7/1993	12	5060.67	5058.84	20	38	18	5038.84	5020.84	5,046.84
TWX-8R	55-539102	No	BAP	Extraction	Tanner Wash Alluvium	7/7/1993	21	5060.78	5059.07	20	38	18	5039.07	5021.07	5,038.07
TWX-9	55-539864	No	BAP	Extraction	Tanner Wash Alluvium	7/24/1993	40	5060.48	5058.61	20	38	18	5038.61	5020.61	5,018.61
TWX-10	55-539863	No	BAP	Extraction	Tanner Wash Alluvium	7/25/1993	35	5058.59	5056.69	20	38	18	5036.69	5018.69	5,021.69
BSX-04	55-926240	No	BAP	Supplementary	Tanner Wash Alluvium	5/15/2021	51	5056.18	5054.63	22	42	20	5,032.63	5,012.63	5,003.63
BSX-05	55-926102	No	BAP	Supplementary	Tanner Wash Alluvium	5/15/2021	29	5056.37	5054.84	10	20	10	5,044.84	5,034.84	5,025.84
M-47A	55-913984	No	BAP	Supplementary	LCR Alluvium	1/20/2012	184	5020.34	5021.45	30.5	60	29.5	4,990.95	4,961.45	4,837.45
M-52A	55-918657	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium/Moenkopi - Moqui Member	9/22/2015	83	5049.36	5047.08	20	70	50	5,027.08	4,977.08	4,964.08
M-53A	55-918651	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	9/22/2015	38	5044.68	5042.09	10	35	25	5,032.09	5,007.09	5,004.09
M-55A	55-918701	No	BAP	Supplementary	Tanner Wash Alluvium	10/30/2015	60	5062.82	5060.06	20	55	35	5,040.06	5,005.06	5,000.06
MW-69A	55-923618	No	BAP	Supplementary	Tanner Wash Alluvium	11/20/2019	27	5050.741	5049.25	16.6	26.6	10	5,032.65	5,022.65	5,022.25
MW-70M	55-923582	No	BAP	Supplementary	Moenkopi - Moqui Member	11/22/2019	77.5	5051.119	5049.80	45.6	75.6	30	5,004.20	4,974.20	4,972.30
MW-71A	55-926812	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	9/28/2021	30	5050.680	5050.15	15.0	25.0	10	5,035.15	5,025.15	5,020.15
MW-72M	55-926814	Yes	BAP	Downgradient Boundary	Moenkopi - Moqui Member	9/19/2021	125	5049.670	5050.54	59.0	69.0	10	4,991.54	4,981.54	4,925.54
MW-73A	55-926813	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	9/23/2021	26	5049.190	5049.66	11.0	21.0	10	5,038.66	5,028.66	5,023.66
MW-74M	55-926815	Yes	BAP	Downgradient Boundary	Moenkopi - Moqui Member	9/23/2021	125	5049.070	5049.74	45.0	65.0	20	5,004.74	4,984.74	4,924.74
MW-76A	55-926103	Yes	BAP	Downgradient	Tanner Wash Alluvium	5/1/2021	52	5033.890	5032.24	16.0	26.0	10	5,016.24	5,006.24	4,980.24
MW-77A	55-926104	Yes	BAP	Downgradient	Tanner Wash Alluvium/Moenkopi - Moqui Member	4/30/2021	65	5031.020	5029.78	44.0	64.0	20	4,985.78	4,965.78	4,964.78
MW-78A	55-926105	Yes	BAP	Downgradient	Tanner Wash Alluvium	5/4/2021	107	5036.950	5035.05	66.0	96.0	30	4,969.05	4,939.05	4,928.05
MW-79A	55-926106	Yes	BAP	Downgradient	Tanner Wash Alluvium	5/17/2021	177	5040.890	5038.24	135.0	165.0	30	4,903.24	4,873.24	4,861.24
W-227	55-506586	No	BAP	Supplementary	Moenkopi - Wupatki Member	11/2/1983	58	5122.820	5120.32	38	55	17	5,082.32	5,065.32	5,062.32
W-301	55-506372	No	BAP	Supplementary	Tanner Wash Alluvium	10/4/1983	62	5033.68	5031.18	40	60	20	4,991.18	4,971.18	4,969.18
W-302	55-506271	No	BAP	Supplementary	Tanner Wash Alluvium	11/1/1983	44	5036.42	5033.90	27	42	15	5,006.90	4,991.90	4,989.90

Table 1-2

CCR Groundwater Monitoring Network Summary

Well	ADWR Well Index Number	CCR Compliance Well	CCR Unit	Well Designation	Hydrogeologic Unit	Date Installed	Borehole Depth [ft bgs]	Top of Casing Elevation [ft AMSL]	Ground Surface Elevation [ft AMSL]	Top of Screen [ft bgs]	Bottom of Screen [ft bgs]	Screen Length [ft]	Top Screen Elevation [ft AMSL]	Bottom Screen Elevation [ft AMSL]	Bottom Borehole Elevation [ft AMSL]
W-303		No	BAP	Supplementary	Moenkopi - Moqui Member	10/26/1983	32	5039.70	5037.20	20	30	10	5,017.20	5,007.20	5,005.20
W-304	55-506370	No	BAP	Supplementary	Tanner Wash Alluvium	10/26/1983	56	5038.60	5036.10	35	54	19	5,001.10	4,982.10	4,980.10
W-305	55-906364	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	10/7/1983	102	5046.80	5044.65	80	100	20	4,964.65	4,944.65	4,942.65
W-306	55-506365	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	10/11/1983	52	5046.74	5044.78	30	50	20	5,014.78	4,994.78	4,992.78
W-307	55-506366	No	BAP	Supplementary	Tanner Wash Alluvium	10/21/1983	62	5045.22	5042.70	40	60	20	5,002.70	4,982.70	4,980.70
W-307R	55-926816	No	BAP	Supplementary	Tanner Wash Alluvium	10/4/2021	67	5048.33	5045.10	35	65	30	5,010.10	4,980.10	4,978.10
W-308	55-506368	No	BAP	Supplementary	Tanner Wash Alluvium	10/19/1983	72	5051.54	5049.00	50	70	20	4,999.00	4,979.00	4,977.00
W-309	55-506367	No	BAP	Supplementary	Tanner Wash Alluvium	10/14/1983	81	5062.01	5059.50	64	79	15	4,995.50	4,980.50	4,978.50
W-310	55-506367	No	BAP	Supplementary	Moenkopi - Wupatki Member	12/19/1992	240	5050.61	5048.60	218	238	20	4,830.60	4,810.60	4,808.60
W-311	55-533813	No	BAP	Supplementary	Coconino Sandstone	12/14/1991	281	5050.03	5047.7	259	279	20	4,788.70	4,768.70	4,766.70
W-312	55-533811	No	BAP	Supplementary	Moenkopi - Wupatki Member	1/22/1992	259	5052.01	5049.3	238	258	20	4,811.30	4,791.30	4,790.30
W-313	55-533814	No	BAP	Supplementary	Coconino Sandstone	1/27/1992	293	5051.32	5049.1	272	292	20	4,777.10	4,757.10	4,756.10
W-314	55-533814	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	1/27/1992	63	5051.10	5051.32	41	61	20	5,010.32	4,990.32	4,988.32
W-317	55-913770	No	BAP	Supplementary	LCR Alluvium	11/10/2011	122.5	5022.27	5023.09	28.8	58.8	30	4,994.29	4,964.29	4,900.59
DM-04R	55-910008	No	FAP	Supplementary	LCR Alluvium	11/22/2008	90	5018.43	5015.77	35	65	30	4,980.77	4,950.77	4,925.77
EW-01	55-925217	No	FAP	Extraction	LCR Alluvium	12/10/2020	55.0	5037.36	5035.09	20.0	50.0	30	5,015.09	4,985.09	4,980.09
EW-02	55-925218	No	FAP	Extraction	LCR Alluvium	12/11/2020	52.0	5036.64	5034.01	17.0	47.0	30	5,017.01	4,987.01	4,982.01
EW-03	55-925215	No	FAP	Extraction	LCR Alluvium	12/12/2020	53.0	5037.71	5035.2	18.0	48.0	30	5,017.20	4,987.20	4,982.20
EW-04	55-925216	No	FAP	Extraction	LCR Alluvium	12/10/2020	24.0	5039.93	5037.18	9.0	19.0	10	5,028.18	5,018.18	5,013.18
GSX-1R	55-926115	No	FAP	Extraction	LCR Alluvium	5/16/2021	54	5037.97	5036.1	29	49	20	5,007.10	4,987.10	4,982.10
HUNT B[4]	55-553267	No	FAP	Extraction	LCR Alluvium	12/21/1995	49	N/A	N/A	19	49	30	N/A	N/A	N/A
M-43A	55-910013	No	FAP	Supplementary	LCR Alluvium	11/21/2008	80	5022.56	5019.87	40	70	30	4,979.87	4,949.87	4,939.87
M-44D	55-909987	No	FAP	Supplementary	Coconino Sandstone	11/13/2008	385	5143.52	5140.94	320	380	60	4,820.94	4,760.94	4,755.94
M-44S	55-909988	No	FAP	Supplementary	Moenkopi - Wupatki Member	11/13/2008	290	5145.63	5143.01	250	280	30	4,893.01	4,863.01	4,853.01
M-45A	55-913769	No	FAP	Supplementary	LCR Alluvium	11/12/2011	68	5025.57	5023.57	31	60	29.7	4,993.07	4,963.37	4,955.57
M-46A	55-913771	No	FAP	Supplementary	LCR Alluvium	11/14/2011	40	5025.36	5023.36	22	34	12	5,001.36	4,989.36	4,983.36
M-49A	55-918639	No	FAP	Supplementary	LCR Alluvium	9/17/2015	35	5024.70	5022.70	10	20	10	5,012.70	5,002.70	4,987.70
M-50A	55-918641	Yes	FAP	Downgradient Boundary	LCR Alluvium	9/18/2015	32	5038.18	5035.65	9	29	20	5,026.65	5,006.65	5,003.65
M-51A	55-918640	Yes	FAP	Downgradient Boundary	LCR Alluvium	9/19/2015	14	5041.77	5039.10	7	12	5	5,032.10	5,027.10	5,025.10
M-63A	55-918638	No	FAP	Supplementary	LCR Alluvium	9/25/2015	57	5021.82	5018.9	25	55	30	4,993.90	4,963.90	4,961.90
MW-65A	55-922299	Yes	FAP	Downgradient	LCR Alluvium	11/15/2018	25	5027.86	5026.21	9	19	10	5,017.31	5,007.31	5,001.21
MW-66A	55-922300	Yes	FAP	Downgradient	LCR Alluvium	11/14/2018	60	5033.35	5032.46	24	49	25.1	5,008.86	4,983.76	4,972.46
MW-67A	55-922301	Yes	FAP	Downgradient	LCR Alluvium	11/16/2018	50	5025.38	5024.05	15	45	30.1	5,009.45	4,979.35	4,974.05

Table 1-2

CCR Groundwater Monitoring Network Summary

Well	ADWR Well Index Number	CCR Compliance Well	CCR Unit	Well Designation	Hydrogeologic Unit	Date Installed	Borehole Depth [ft bgs]	Top of Casing Elevation [ft AMSL]	Ground Surface Elevation [ft AMSL]	Top of Screen [ft bgs]	Bottom of Screen [ft bgs]	Screen Length [ft]	Top Screen Elevation [ft AMSL]	Bottom Screen Elevation [ft AMSL]	Bottom Borehole Elevation [ft AMSL]
MW-68M	55-923346	No	FAP	Supplementary	Moenkopi - Moqui Member	9/16/2019	50	5026.95	5026.45	30	50	20.1	4,996.71	4,976.61	4,976.10
W-123	55-506587	Yes	FAP	Downgradient Boundary	Moenkopi - Moqui Member	11/4/1983	40	5039.838	5038.136	14	29	15	5,024.14	5,009.14	4,998.14
W-123R	55-926116	Yes	FAP	Downgradient Boundary	LCR Alluvium	5/12/2021	67	5041.06	5038.83	35	65	30	5,003.83	4,973.83	4,971.83
W-124	55-533820	No	FAP	Supplementary	Moenkopi - Wupatki Member	2/14/1992	96	5037.53	5036.00	76	96	20	4,960.00	4,940.00	4,940.00
W-125	55-533817	No	FAP	Supplementary	Coconino Sandstone	2/13/1992	141	5038.37	5036.00	120	140	20	4,916.00	4,896.00	4,895.00
W-126	55-553268	No	FAP	Supplementary	Moenkopi - Moqui Member	12/1/1995	50	5034.75	5032.75	15	45	30	5,017.75	4,987.75	4,982.75
W-126R	55-926120	No	FAP	Supplementary	LCR Alluvium	05/03/2021	27	5031.71	5030.19	9	19	10	5,021.19	5,011.19	5,003.19
W-127	55-560489	No	FAP	Supplementary	LCR Alluvium	2/11/1997	33.3	5030.04	5025.18	15	30	15	5,010.18	4,995.18	4,991.88
MW-80A	55=931375	No	FAP	Supplementary	LCR Alluvium	8/5/2024	45	5025.85	5023.33	30	40	10	4993.33	4983.33	4978.33
MW-81A	55-931377	No	FAP	Supplementary	LCR Alluvium	8/10/2024	55	5026.76	5024.52	35	45	10	4989.52	4,979.52	4969.52
MW-82A	55-931378	No	FAP	Supplementary	LCR Alluvium	8/9/2024	38	5027.79	5025.95	20	30	10	5,005.95	4,995.95	4987.95
MW-83A	55-931380	No	FAP	Supplementary	LCR Alluvium	8/8/2024	55	5030.42	5028.19	35	45	10	4,993.19	4,983.19	4973.19
MW-84A	55-931376	No	FAP	Supplementary	LCR Alluvium	8/8/2024	50	5027.38	5025.13	35	45	10	4,990.13	4,980.13	4975.13
MW-85C	55-931406	No	FAP	Supplementary	Coconino Sandstone	8/13/2024	130	5027.7	5027.7	105	125	20	4,922.70	4,902.70	4897.7
M-64A	55-920353	Yes	FAP/BAP	Background	LCR Alluvium	2/9/2017	69	4991.90	4988.90	30	60	30	4,958.90	4,928.90	4,919.90
CR-1[3]	55-926108	No	--	Supplementary	LCR Alluvium	9/24/1993	45	5010.20	5006.15	25	45	20	4,981.15	4,961.15	4,961.15
CR-1R[3]	55-926108	No	--	Supplementary	LCR Alluvium	4/28/2021	67	5010.02	5007.9	28	48	20	4,979.90	4,959.90	4,940.90
M-48A[3]	55-913983	No	--	Supplementary	LCR Alluvium	1/22/2012	145	5020.37	5018.37[2]	30.5	59.5	29	4,987.87	4,958.87	4,873.37
M-56A[3]	55-918661	No	--	Supplementary	LCR Alluvium	10/7/2015	100	5023.17	5020.63	40	85	45	4,980.63	4,935.63	4,920.63
M-57A[3]	55-918660	No	--	Supplementary	LCR Alluvium	10/8/2015	100	5023.82	5021.16	40	85	45	4981.16	4936.16	4921.16
M-58A[3]	55-918659	No	--	Supplementary	LCR Alluvium	42290	100	5023.84	5021.24	39	84	45	4982.24	4937.24	4921.24
M-62A[3]	55-918658	No	--	Supplementary	LCR Alluvium	42325	97	5020.87	5021.01	39	84	45	4982.01	4937.01	4924.01

Source:

AMEC Earth & Infrastructure, Inc., 2012. *Well Completion Report, Installation of Aquifer Protection Permit Monitor Wells, Arizona Public Service Company, Cholla Power Plant, Navajo County, Arizona.* AMEC Job No. 17-2011-4054. May 7, 2012.

Montgomery & Associates, 2017. Cholla Power Plant Coal Combustion Residuals Program–Design, Installation, and Evaluation of Completeness of Groundwater Monitoring Networks. Navajo County, Arizona. September 19, 2017.

Wood Environment & Infrastructure Solutions, Inc. Surveying, 2018 and 2019.

Martin Land Surveys, Inc., 2020, 2021, 2024.

Notes and Abbreviations:

ADWR - Arizona Department of Water Resources

AMSL - Above mean sea level (Vertical datum is NAVD 88)

BAM - Bottom Ash Monofill

BAP - Bottom Ash Pond

bgs - below ground surface

CCR - Coal combustion residuals

FAP - Fly Ash Pond

ft - feet

LCR - Little Colorado River

N/A - not applicable

[1] In previous documents TDX-3 is also known as BSX-01, TDX-4 is also known as BSX-02, and TDX-5 is also known as BSX-03

[2] Approximate - elevation based on measured stickups

[3] Well was formerly monitored for the SEDI CCR unit which was closed by removal in October 2022

[4] Hunt B is also know as HSX-1

Table 1-2

CCR Groundwater Monitoring Network Summary

Well Designation Descriptions:

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

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

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

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

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

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

Wells highlighted gray were abandoned

Table 3-1

Appendix III and Appendix IV Constituent BTVs and/or GWPSs for Cholla CCR Units

Semiannual 1 Event 2024

	CCR Unit	BAM	FAP [A, B]		BAP [A, C]	
	Constituent	BTV [mg/L]	BTV [mg/L]	GWPS [mg/L]	BTV [mg/L]	GWPS [mg/L]
Appendix III Constituents	Boron	0.55 [D]	1.3	N/A	1.3	N/A
	Calcium	101 [E]	740		740	
	Chloride	1,600 [D]	5,700		5,700	
	Fluoride	1.8 (M-59) [E], 1.7 (M-60) [F], 1.6 (M-61) [F]	0.8		0.8	
	pH[1]	7.3 to 7.8 [D]	7.4		7.4	
	Sulfate	380 [D]	5,100		5,100	
	TDS	3225 [E]	15,000		15,000	
Appendix IV Constituents	Antimony	N/A	0.004	0.006	0.004	0.006
	Arsenic		0.004	0.01	0.004	0.01
	Barium		0.05	2	0.05	2
	Beryllium		0.001	0.004	0.001	0.004
	Cadmium		0.0004	0.005	0.0004	0.005
	Chromium		0.004	0.1	0.004	0.1
	Cobalt		0.002	0.006	0.002	0.006
	Fluoride		0.8	4	0.8	4
	Lead		0.002	0.015	0.002	0.015
	Lithium		0.31	0.31	0.31	0.31
	Mercury		0.0002	0.002	0.0002	0.002
	Molybdenum		0.0061	0.1	0.0061	0.1
	Selenium		0.002	0.05	0.002	0.05
	Thallium		0.0014	0.002	0.0014	0.002
	Combined Radium[2]		1.6	5	1.6	5

Notes and Abbreviations:

[1]Units are standard units

[2]Units are picocuries per liter

BAM - Bottom Ash Monofill

BAP - Bottom Ash Pond

FAP - Fly Ash Pond

GWPS - Groundwater Protection Standard

mg/L - milligrams per liter

N/A - not applicable

Table 3-1

Appendix III and Appendix IV Constituent BTVs and/or GWPSs for Cholla CCR Units

Semiannual 1 Event 2024

BTV - Background Threshold Value

References:

[A] - BTVs were established for appendix III constituents at the BAM, FAP, and BAP in 2018. [Montgomery & Associates, 2018. Cholla Power Plant Coal Combustion Residuals Program – Statistical Analysis of Baseline Groundwater Monitoring Data November 2015 through September 2017. Prepared for Arizona Public Service. January 12, 2018. Revised May 22, 2018.]

[B] - BTVS and GWPSs were established for appendix IV constituents at the FAP in 2018. [Wood, 2018. CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the Fly Ash Pond. Arizona Public Service Cholla Power Plant – Navajo County, Arizona. Technical Memorandum. Prepared on behalf of Arizona Public Service. October 15, 2018.]

[C] - BTVS and GWPSs were established for appendix IV constituents at the BAP in 2018. [Wood Environment & Infrastructure Solutions, Inc. (Wood), 2018. CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the Bottom Ash Pond. Arizona Public Service Cholla Power Plant – Navajo County, Arizona. Technical Memorandum. Prepared on behalf of Arizona Public Service. October 15, 2018.]

[D] - BTVs for boron, chloride, pH, and sulfate were updated at the BAM in 2019. [Wood, 2019. CCR Groundwater Detection Monitoring Statistical Analysis and Results for the Bottom Ash Monofill. Arizona Public Service Cholla Power Plant – Navajo County, Arizona. Technical Memorandum. Prepared on behalf of Arizona Public Service. April 15, 2019.]

[E] - BTVs for calcium, fluoride, and total dissolved solids were updated at the BAM in 2021. [Wood, 2021. CCR Groundwater Detection Monitoring Statistical Analysis and Results for the Bottom Ash Monofill Appendix III Constituent Data Collected through October 2020. Arizona Public Service Cholla Power Plant – Navajo County, Arizona. Technical Memorandum dated April 12, 2021.]

[F] - BTVs for fluoride were updated at the BAM in 2021. [Wood, 2021. CCR Groundwater Detection Monitoring Statistical Analysis and Results for the Bottom Ash Monofill Appendix III Constituent Data Collected through July 2021. Arizona Public Service Cholla Power Plant – Navajo County, Arizona. Technical Memorandum dated October 13, 2021.]

Table 3-2

Appendix III and Appendix IV Constituent BTVs and/or GWPSs for Cholla CCR Units

Semiannual 2 Event 2024

	CCR Unit	BAM [A]	FAP [B, C]		BAP [B, C]	
	Constituent	BTV [mg/L]	BTV [mg/L]	GWPS [mg/L]	BTV [mg/L]	GWPS [mg/L]
Appendix III Constituents	Boron	0.56	1.3	N/A	1.3	N/A
	Calcium	110	740		740	
	Chloride	1,700	5,700		5,700	
	Fluoride	1.8 (M-59), 1.7 (M-60), 1.6 (M-61)	0.8		0.8	
	pH[1]	7.3 to 8.2	7.4		7.4	
	Sulfate	420	5,100		5,100	
	TDS	3,300	15,000		15,000	
Appendix IV Constituents	Antimony	N/A	0.00013	0.006	0.00013	0.006
	Arsenic		0.0084	0.01	0.0084	0.01
	Barium		0.04	2	0.04	2
	Beryllium		0.001	0.004	0.001	0.004
	Cadmium		0.00011	0.005	0.00011	0.005
	Chromium		0.0022	0.1	0.0022	0.1
	Cobalt		0.0024	0.006	0.0024	0.006
	Fluoride		0.38	4	0.38	4
	Lead		0.001	0.015	0.001	0.015
	Lithium		0.418	0.418	0.418	0.418
	Mercury		0.0002	0.002	0.0002	0.002
	Molybdenum		0.007	0.1	0.007	0.1
	Selenium		0.0044	0.05	0.0044	0.05
	Thallium		0.001	0.002	0.001	0.002
	Combined Radium[2]		1.6	5	1.6	5

Notes and Abbreviations:

[1]Units are standard units

[2]Units are picocuries per liter

BAM - Bottom Ash Monofill

BAP - Bottom Ash Pond

FAP - Fly Ash Pond

GWPS - Groundwater Protection Standard

mg/L - milligrams per liter

N/A - not applicable

Table 3-2

Appendix III and Appendix IV Constituent BTVs and/or GWPSs for Cholla CCR Units

Semiannual 2 Event 2024

BTV - Background Threshold Value

References:

[A] - BTVs were updated for appendix III constituents at the BAM in 2024. [WSP USA, Inc. (WSP), 2024. CCR Groundwater Detection Monitoring. Statistical Analysis and Results for the Bottom Ash Monofill Appendix III Constituent Data Collected Through July 2024. Cholla Power Plant - Navajo County, Arizona. Prepared for Arizona Public Service. November 25, 2024.]

[B] - BTVs were established for appendix III constituents at the BAM, FAP, and BAP in 2018. [Montgomery & Associates, 2018. Cholla Power Plant Coal Combustion Residuals Program – Statistical Analysis of Baseline Groundwater Monitoring Data November 2015 through September 2017. Prepared for Arizona Public Service. January 12, 2018. Revised May 22, 2018.]

[C] - BTVs and GWPS were updated for appendix IV constituents at the FAP and BAP in 2025. [WSP USA, Inc. (WSP), 2024. CCR Groundwater Detection Monitoring. Statistical Analysis and Results for the Bottom Ash Pond and Fly Ash Pond. Background Threshold Values Update. Cholla Power Plant - Navajo County, Arizona. Prepared for Arizona Public Service. January 08, 2025.]

Table 3-3

Monitoring Event Summary for 2024

CCR Unit	Monitoring Location	CCR Compliance Well	Monitoring Point Designation	Number of Field Original Samples Collected in 2024[a]					Number of Field Original Samples Collected in 2024[a]
				SA1 2024 (Detection Sampling)	SA1 2024 (Assessment Sampling)	July 1, 2024 (Detection Re-Sampling)	SA2 2024 (Detection Sampling)	SA2 2024 (Assessment Sampling)	
BAP	TDX-3 [b]	No	Extraction (Inactive)	---	---		---	---	0
	TDX-4 [b]	No	Extraction (Inactive)	---	---		---	---	0
	TDX-5 [b]	No	Extraction (Inactive)	---	---		---	---	0
	BSX-04	No	Supplementary	---	---		---	---	0
	BSX-05	No	Supplementary	---	---		---	---	0
	M-52A	Yes	Downgradient Boundary	---	X		---	X	2
	M-53A	Yes	Downgradient Boundary	---	X		---	X	2
	M-55A	No	Supplementary	---	X		---	X	2
	M-64A[c]	Yes	Background	---	X		---	X	2
	MW-69A	No	Supplementary	---	X		---	X	2
	MW-70M	No	Supplementary	---	X		---	X	2
	MW-71A	Yes	Downgradient Boundary	---	X		---	X	2
	MW-72M	Yes	Downgradient Boundary	---	X		---	X	2
	MW-73A	Yes	Downgradient Boundary	---	X		---	X	2
	MW-74M	Yes	Downgradient Boundary	---	X		---	X	2
	MW-76A	Yes	Downgradient	---	X		---	X	2
	MW-77A	Yes	Downgradient	---	X		---	X	2
	MW-78A	Yes	Downgradient	---	X		---	X	2
	MW-79A	Yes	Downgradient	---	X		---	X	2
	W-301	No	Supplementary	---	X		---	X	2
	W-302	No	Supplementary	---	X		---	X	2
	W-303	No	Supplementary	---	X		---	X	2
	W-304	No	Supplementary	---	X		---	X	2
	W-305	Yes	Downgradient Boundary	---	X		---	X	2
	W-306	Yes	Downgradient Boundary	---	X		---	X	2
	W-307R	No	Supplementary	---	X		---	X	2
	W-308	No	Supplementary	---	X		---	X	2

Table 3-3

Monitoring Event Summary for 2024

CCR Unit	Monitoring Location	CCR Compliance Well	Monitoring Point Designation	Number of Field Original Samples Collected in 2024[a]					Number of Field Original Samples Collected in 2024[a]
				SA1 2024 (Detection Sampling)	SA1 2024 (Assessment Sampling)	July 1, 2024 (Detection Re-Sampling)	SA2 2024 (Detection Sampling)	SA2 2024 (Assessment Sampling)	
BAP	W-309	No	Supplementary	---	X		---	X	2
	W-314	Yes	Downgradient Boundary	---	X		---	X	2
	W-317	Yes	Supplementary	---	X		---	X	2
	BAP	No	Surface Water	---	X		---	X	2
	Tanner Wash Sump	No	Seepage Collection Sump	---	X		---	X	2
	Petroglyph Sump	No	Seepage Collection Sump	---	X		---	X	2
	Toe Drain Sump	No	Seepage Collection Sump	---	X		---	X	2
	TWX-3	No	Extraction	---	X		---	X	2
	TWX-4	No	Extraction	---	X		---	X	2
	TWX-5	No	Extraction	---	X		---	X	2
	TWX-6R	No	Extraction	---	X		---	X	2
	TWX-7R	No	Extraction	---	X		---	X	2
	TWX-8R	No	Extraction	---	X		---	X	2
	TWX-9	No	Extraction	---	X		---	X	2
	TWX-10	No	Extraction	---	X		---	X	2
BAM	M-54	Yes	Background	X	---	---	X	---	2
	M-59	Yes	Downgradient Boundary	X	---	X	X	---	3
	M-60	Yes	Downgradient Boundary	X	---	X	X	---	3
	M-61	Yes	Downgradient Boundary	X	---	---	X	---	2
FAP	EW-01	No	Extraction	---	X		---	X	2
	EW-02	No	Extraction	---	X		---	X	2
	EW-03	No	Extraction	---	X		---	X	2
	EW-04	No	Extraction	---	X		---	X	2
	M-43A	No	Supplementary	---	X		---	X	2
	M-44D	No	Supplementary	---	X		---	X	2
	M-45A	No	Supplementary	---	X		---	X	2
	M-46A	No	Supplementary	---	X		---	X	2

Table 3-3

Monitoring Event Summary for 2024

CCR Unit	Monitoring Location	CCR Compliance Well	Monitoring Point Designation	Number of Field Original Samples Collected in 2024[a]					Number of Field Original Samples Collected in 2024[a]
				SA1 2024 (Detection Sampling)	SA1 2024 (Assessment Sampling)	July 1, 2024 (Detection Re-Sampling)	SA2 2024 (Detection Sampling)	SA2 2024 (Assessment Sampling)	
FAP	M-50A	Yes	Downgradient Boundary	---	X		---	X	2
	M-51A	Yes	Downgradient Boundary	---	X		---	X	2
	M-63A	No	Supplementary	---	X		---	X	2
	MW-65A	Yes	Downgradient	---	X		---	X	2
	MW-66A	Yes	Downgradient	---	X		---	X	2
	MW-67A	Yes	Downgradient	---	X		---	X	2
	W-123R	Yes	Downgradient Boundary	---	X		---	X	2
	W-125	No	Supplementary	---	X		---	X	2
	W-126R	No	Supplementary	---	X		---	X	2
	FAP	No	Surface Water	---	X		---	X	2
	Geronimo C	No	Seepage Collection Sump	---	X		---	X	2
	Geronimo D	No	Seepage Collection Sump	---	X		---	X	2
	GSX-1R	No	Extraction	---	X		---	X	2
	Hunt B	No	Extraction	---	X		---	X	2
Analyzed Constituents				*App III Constituents*	*App III, App IV and Additional Constituents*	*App III Constituents*	*App III Constituents*	*App III, App IV and Additional Constituents*	128

Notes and Abbreviations:

[a] Totals exclude field duplicate samples.

[b] In previous documents TDX-3 is also known as BSX-01, TDX-4 is also known as BSX-02, and TDX-5 is also known as BSX-03

[c] Background well for both the BAP and FAP.

[1]Well was not sampled as part of the resampling event since this location was not included in the implemented 1 of 2 resampling strategy for the initial exceedance above the associated BTV.

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

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

NS = Not Sampled

SA = Semi-annual

Table 3-3

Monitoring Event Summary for 2024

Monitoring System Type Descriptions:

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

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

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

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

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

Seepage Collection Sump - Sump location that currently supports the hydraulic containment system with the extraction of groundwater located downgradient of a CCR unit

Table 3-4

Aquifer Properties and Groundwater Flow Calculations

CCR Unit (Wells Used in Calculations)	Estimated Hydraulic Conductivity [ft/d]	Estimated Effective Porosity	Monitoring Event	Calculated Hydraulic Gradient [ft/ft]	Calculated Groundwater Flow Direction [degrees from North]	Estimated Groundwater Flow Rate [ft/d]
BAP (M-52A, M-53A, W-301, W-302, W-304, W-306, W-307R)	0.96[a]	0.26[c]	April 2024	0.015	188	0.05
			October 2024	0.013	191	0.05
FAP (M-50A, M-51A,W-123R, W-126R, MW-65A, MW-66A, MW-67A)	3.98[b]	0.26[c]	April 2024	0.024	233	0.37
			October 2024	0.016	238	0.25
BAM (M-54, M-59, M61, M60)	31[a]	0.26[c]	April 2024	0.011	4.89	1.3
			October 2024	0.0085	345	1.0

Abbreviations:

BAM - Bottom Ash Monofill
BAP - Bottom Ash Pond
CCR - Coal Combustion Residuals
d - day
FAP - Fly Ash Pond
ft - feet

References:

[a] Montgomery & Associates, 2018. *Annual Groundwater Monitoring and Corrective Action Report for Cholla Power Plant Coal Combustion Residuals Program, November 2015 - December 2017*. Navajo County, Arizona. Document # CH_GW_ANCAR_020_20180131. January 30, 2018.

[b] Wood Environment & Infrastructure Solutions, Inc., 2021

[c] Morris, D.A. and A.I. Johnson, 1967. Summary of hydrologic and physical properties of rock and soil materials as analyzed by the Hydrologic Laboratory of the U.S. Geological Survey, U.S. Geological Survey Water-Supply Paper 1839-D, 42p.

Table 4-1

Total Site Mass Removed Appendix IV Constituents

Total Mass Removed (tons)			**0.28**
Total Volume Pumped (gallons)			**11,997,574**
Year	**2024**		
Constituent	**BAP* (lbs/yr)**	**FAP (lbs/yr)**	**Total (lbs/yr)**
Fluoride	247.0	249.2	496.2
Antimony	0.6	0.8	1.4
Arsenic	0.6	1.5	2.1
Barium	1.4	0.6	2.0
Beryllium	0.1	0.0	0.1
Cadmium	0.1	0.1	0.2
Chromium	3.1	2.6	5.6
Cobalt	1.2	0.5	1.7
Lead	0.6	0.4	1.0
Lithium	22.2	22.2	44.4
Mercury	0.0	0.0	0.0
Molybdenum	3.5	8.5	12.0
Selenium	0.5	0.4	0.9
Thallium	0.1	0.1	0.2
Total (lb/yr)	**280.9**	**286.9**	**567.9**
Total (tons)	**0.14**	**0.14**	**0.28**

Notes:

* Total flow and groundwater chemistry data from the Petroglyph seep, Tanner Wash seep, Toe Drain seep, and TWX extraction wells are only utilizing flows measured after each system was commissioned (generally July 2024) due to these systems being under construction in 2024.

Abbreviations:

lbs - pounds

yr - year

Table 4-2

Individual Site Chemistry and Flow Volumes

Source Area		BAP[1]												FAP[2]		
Well/Seep		Toe Drain			Petroglyph			TWX Area			Tanner Wash			Geronimo/Hunt Combo		
Flow (gpd)		11,807			2,479			6,412			14,084			17,605		
Total Annual Flow (gal)		1,818,212			381,768			1,097,281			2,168,989			6,531,324		
Analyte		mg/L	lb/day	lb/yr	mg/L	lb/day	lb/yr	mg/L	lb/day	lb/yr	mg/L	lb/day	lb/yr	mg/L	lb/day	lb/yr
Appendix III	Fluoride	1.58	0.16	57	2.47	0.05	19	1.84	0.10	36	3.16	0.37	136	4.64	0.68	249
	Sulfate	2,710	267	97,562	3,005	62	22,715	3,020	162	59,046	3,115	367	133,777	3,835	564.01	205,864
	TDS	7,820	771	281,526	6,480	134	48,983	8,018	429	156,755	7,550	888	324,243	15,600	2,294.28	837,412
Appendix IV	Antimony	0.0005	0.0000	0.02	0.01	0.0002	0.077	0.003	0.0002	0.06	0.01	0.0012	0.44	*0.015*	0.0022	0.81
	Arsenic	0.003	0.0003	0.12	0.01	0.0002	0.07	0.0045	0.0002	0.09	0.01	0.0010	0.35	0.0282	0.0041	1.51
	Barium	0.01	0.0010	0.36	0.02	0.0004	0.14	0.019	0.0010	0.36	0.01	0.0014	0.50	0.0114	0.0017	0.61
	Beryllium	0.001	0.0001	0.03	0.001	0.0000	0.01	0.0007	0.0000	0.01	0.001	0.0001	0.03	0.0009	0.0001	0.05
	Cadmium	0.001	0.0001	0.02	0.001	0.0000	0.008	0.0007	0.0000	0.01	0.001	0.0001	0.05	0.0015	0.0002	0.08
	Chromium	0.006	0.0006	0.23	0.01	0.0002	0.09	0.116	0.0062	2.3	0.01	0.0013	0.48	0.0479	0.0070	2.57
	Cobalt	0.01	0.0008	0.29	0.01	0.0003	0.10	0.017	0.0009	0.32	0.01	0.0014	0.52	0.0091	0.0013	0.49
	Lead	0.003	0.0003	0.11	0.01	0.0001	0.04	0.013	0.0007	0.25	0.01	0.0006	0.22	0.0076	0.0011	0.41
	Lithium	0.21	0.0203	7.42	0.19	0.0040	1.46	0.236	0.0127	4.6	0.20	0.0238	8.7	0.4143	0.0609	22
	Mercury	--	--	--	--	--	--	--	--	--	--	--	--	0.0002	0.0000	0.01
	Molybdenum	0.04	0.0035	1.27	0.03	0.0006	0.23	0.045	0.0024	0.88	0.03	0.0032	1.16	0.1575	0.0232	8.5
	Selenium	0.003	0.0003	0.10	0.01	0.0001	0.04	0.005	0.0003	0.10	0.01	0.0006	0.23	0.0078	0.0011	0.42
	Thallium	0.001	0.0001	0.020	0.001	0.0000	0.008	0.0004	0.0000	0.01	0.001	0.0001	0.05	0.0015	0.0002	0.08
Additional	Iron	0.51	0.05	18	0.08	0.00	0.59	1.43	0.08	28	0.07	0.01	3	1.04	0.15	55.76
	Magnesium	247	24	8,892	242	5.01	1,829	214.4	11	4,191	255	30	10,951	473	70	25,391
	Manganese	1.70	0.17	61	1.52	0.03	11	3.39	0.18	66	2.57	0.30	110	0.74	0.11	39.52
	Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Potassium	21	2.08	758	18.9	0.39	143	16.5	0.88	322	18.9	2.22	812	52.1	7.65	2,794
	Silica	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Sodium	1,670	165	60,121	1,790	37	13,531	1,823	98	35,645	1,640	193	70,432	5,423	797	291,081
	Total (lbs)			***66.7***			***20.9***			***44.9***			***148.4***			***287***

Notes:

[1] Total flow and groundwater chemistry data from the Petroglyph seep, Tanner Wash seep, Toedrain seep, and TWX extraction wells are only utilizing flows measured after each system was commissioned (generally July 2024) due to these systems being under construction in 2024.

[2] Flow data collected from December 29, 2023 - December 31, 2024.

Abbreviations:

gpd - gallons per day

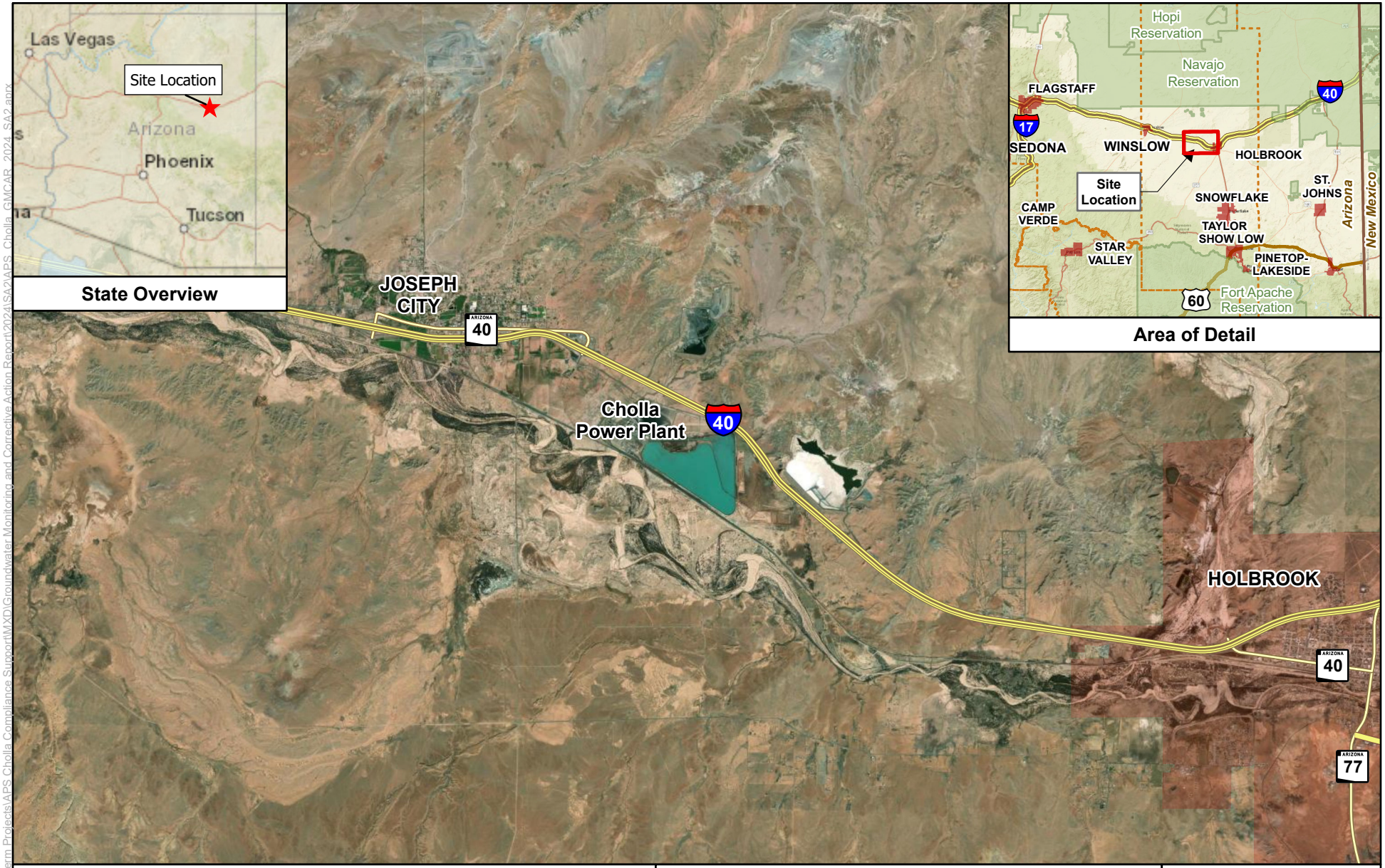
lbs - pound

mg/L - milligrams per liter

yr - year

"--" - data not availble or not collected

FIGURES



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Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Site Location Map

FIGURE
1-1

wsp

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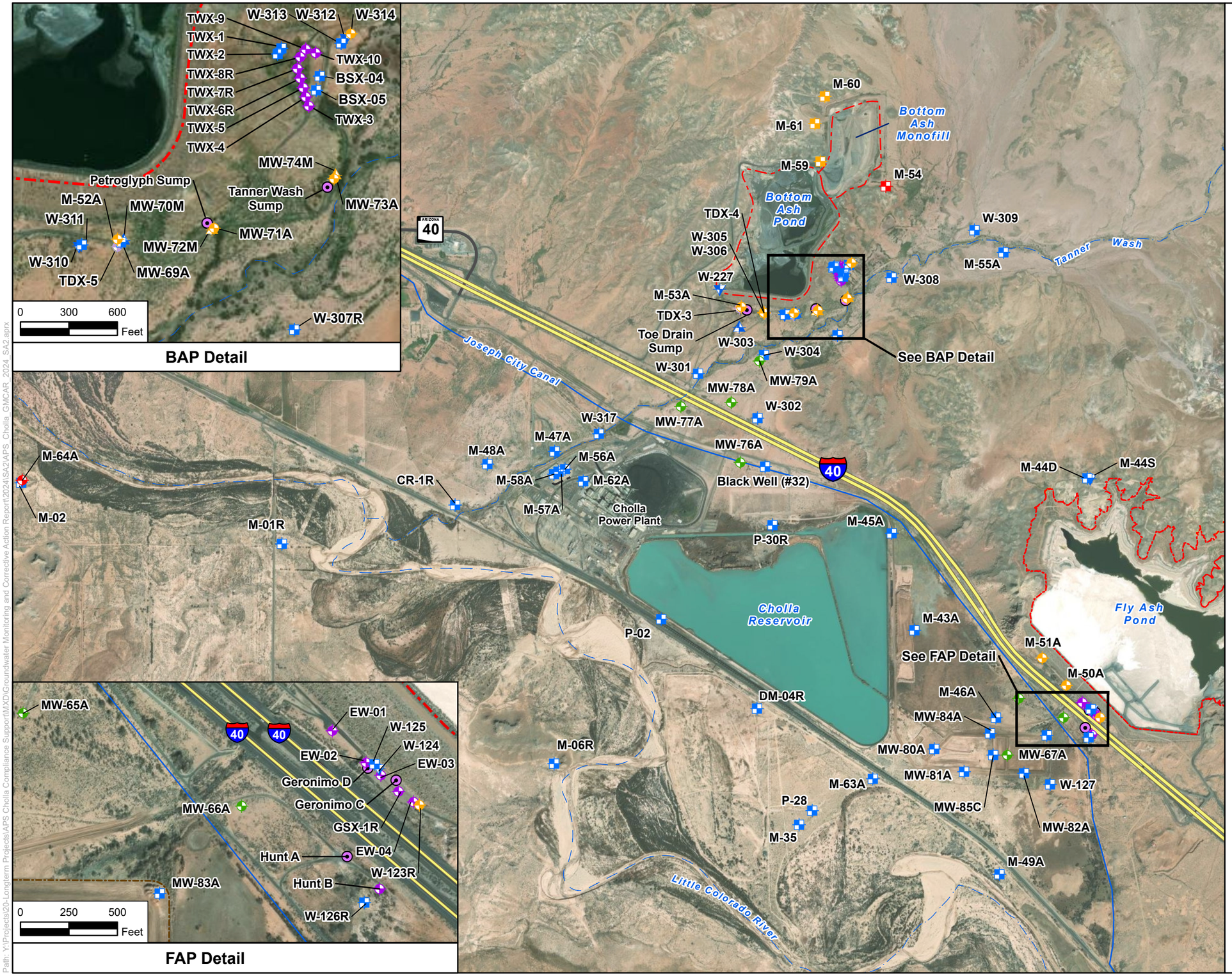
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W-312
W-314
TWX-1
TWX-2
TWX-10
TWX-8R
BSX-04
TWX-7R
BSX-05
TWX-6R
TWX-3
TWX-5
TWX-4
MW-74M
Petroglyph Sump
Tanner Wash Sump
MW-73A
M-52A
MW-70M
W-311
MW-71A
MW-72M
W-310
TDX-5
MW-69A
0 300 600 Feet
W-307R
BAP Detail
M-60
M-61
Bottom Ash Monofill
M-59
M-54
Bottom Ash Pond
TDX-4
W-309
W-305
W-306
M-55A
Tanner Wash
W-227
W-308
M-53A
TDX-3
Toe Drain Sump
W-303
W-304
See BAP Detail
W-301
MW-79A
MW-78A
W-302
MW-77A
W-317
M-47A
MW-76A
M-48A
M-56A
M-64A
CR-1R
M-58A
M-62A
Black Well (#32)
M-44D
M-44S
M-02
M-57A
Cholla Power Plant
M-01R
P-30R
M-45A
Cholla Reservoir
Fly Ash Pond
M-43A
P-02
M-51A
See FAP Detail
M-50A
DM-04R
M-46A
MW-84A
M-06R
MW-80A
MW-67A
MW-81A
M-63A
W-127
P-28
MW-85C
MW-82A
M-35
M-49A
Little Colorado River
Joseph City Canal
MW-65A
EW-01
W-125
W-124
EW-02
EW-03
Geronimo D
MW-66A
Geronimo C
GSX-1R
Hunt A
EW-04
W-123R
MW-83A
Hunt B
W-126R
0 250 500 Feet
FAP Detail
Legend
CCR Monitoring Well Location
CCR Monitoring Well - Background, Alluvial
CCR Monitoring Well - Background, C-Aquifer
CCR Monitoring Well - Downgradient, Alluvial
CCR Monitoring Well - Downgradient Boundary, Alluvial
CCR Monitoring Well - Downgradient Boundary, C-Aquifer
CCR Monitoring Well - Downgradient Boundary, Moenkopi Formation (Moqui Member)
Supplementary Site Monitoring Well Location
C-Aquifer Monitoring Well
Moenkopi Formation (Moqui Member) Monitoring Well
Moenkopi Formation (Wupatki Member) Monitoring Well
Other Features
Extraction Well
Extraction (Inactive) Well
Seepage Collection Sump
Ephemeral Surface Water Feature
Canal
Evaporation Pond
Approximate Extent of CCR Unit
Approximate Extent of Closed CCR Unit
Notes:
In previous documents TDX-3 is also known as BSX-01, TDX-4 is also known as BSX-02, and TDX-5 is also known as BSX-03
TWX area is also referred to as the P-226 or B-226 area on some historical drawings and figures.
0 1,000 2,000 Feet
N
Arizona Public Service
Cholla Power Plant
Navajo County, Arizona
FIGURE 1-2
CCR Units and Groundwater Monitoring System Summary Map
Job No. US0023513.9708
PM: MBH
Date: 1/16/2025
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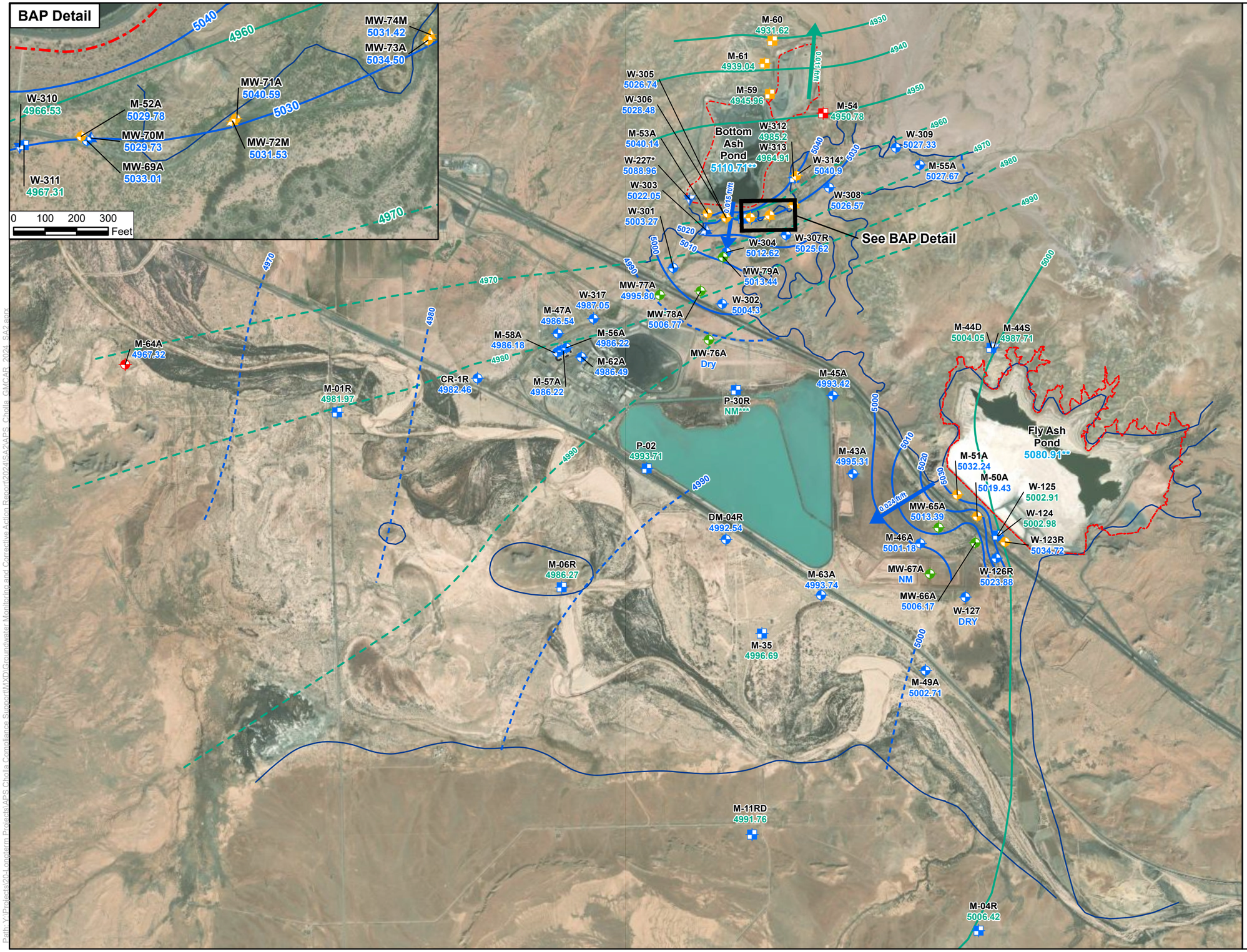

Legend

CCR Monitoring Well Location

- CCR Monitoring Well - Background, Alluvial
- CCR Monitoring Well - Background, C-Aquifer
- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, C-Aquifer
- CCR Monitoring Well - Downgradient Waste Boundary, Moenkopi Formation (Moqui Member)

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Moenkopi Formation (Moqui Member) Monitoring Well
- Moenkopi Formation (Wupatki Member) Monitoring Well
- Groundwater Elevation Contour (ft amsl) Alluvial Aquifer; dashed where inferred
- Groundwater Elevation Contour (ft amsl) C-Aquifer; dashed where inferred
- Groundwater Flow Direction
- Extent of Alluvium (Not Fully Defined) provided by Montgomery and Associates
- Approximate Extent of CCR Unit

Notes and Abbreviations:

MW-65A	Well Identification
5012.53	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl)
4986.83	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl)
5080.82	CCR Surface Water Elevation
NM	Not Measured
*	Well not used in potentiometric surface mapping
**	Pond elevations provided by Montgomery & Associates.
***	Groundwater elevation unable to be measured in April 2024
ft amsl	Feet above mean sea level
CCR	Coal Combustion Residuals

0 1,200 2,400 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 3-1

Potentiometric Surface Map Semi Annual Event 1 2024

Job No.	US0023513.9708
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Scale:	1"= 2,400 feet

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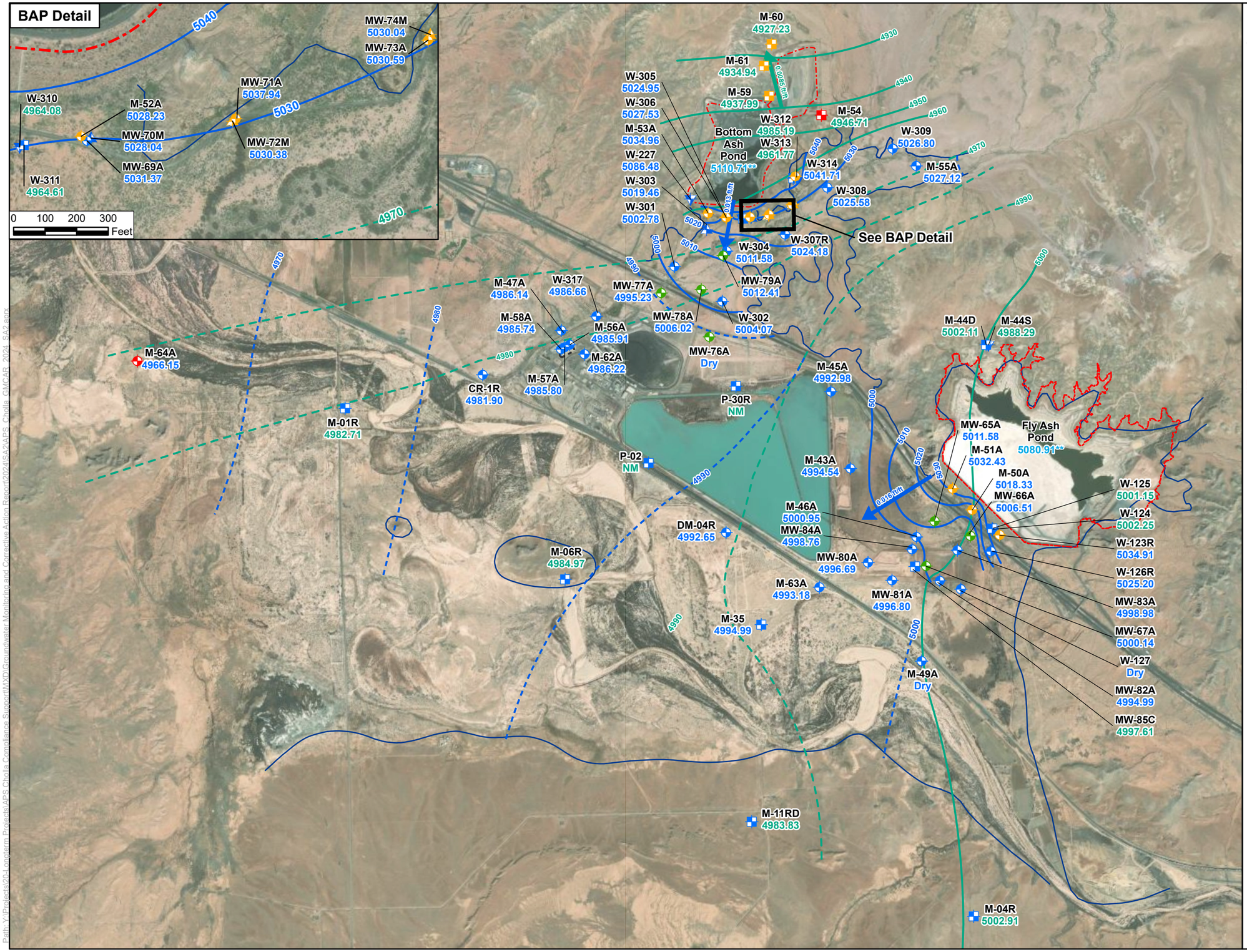

Legend

CCR Monitoring Well Location

- CCR Monitoring Well - Background, Alluvial
- CCR Monitoring Well - Background, C-Aquifer
- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, C-Aquifer
- CCR Monitoring Well - Downgradient Waste Boundary, Moenkopi Formation (Moqui Member)

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Moenkopi Formation (Moqui Member) Monitoring Well
- Moenkopi Formation (Wupatki Member) Monitoring Well
- Groundwater Elevation Contour (ft amsl) Alluvial Aquifer; dashed where inferred
- Groundwater Elevation Contour (ft amsl) C-Aquifer; dashed where inferred
- Groundwater Flow Direction
- Extent of Alluvium (Not Fully Defined) provided by Montgomery and Associates
- Approximate Extent of CCR Unit

Notes and Abbreviations:

MW-65A	Well Identification
5011.58	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl)
4988.29	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl)
5080.91	CCR Surface Water Elevation
NM	No Measurement because piping is present in the well which prevents the collection of manual groundwater measurements.
*	Well not used in potentiometric surface mapping
**	Pond elevations provided by Montgomery & Associates.
***	Groundwater elevation unable to be measured in October 2024
ft amsl	Feet above mean sea level
CCR	Coal Combustion Residuals

0 1,200 2,400 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 3-2

Potentiometric Surface Map Semi Annual Event 2 2024

Job No.	US0023513.9708
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Scale:	1"= 2,449 feet

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M-51A	
5032.24	
Date	Conc
April 2024	0.027

M-44D	
5004.45	
Date	Conc
April 2024	0.0011 J

M-45A	
4993.42	
Date	Conc
April 2024	0.0037

M-43A	
4995.31	
Date	Conc
April 2024	0.0024

M-50A	
5019.43	
Date	Conc
April 2024	0.0047

FAP Surface	
5080.91**	
Date	Conc
April 2024	0.90

MW-65A	
5013.39	
Date	Conc
April 2024	0.0046

W-125	
5002.91	
Date	Conc
April 2024	0.0049

M-46A	
5000.18	
Date	Conc
April 2024	0.0085

W-123R	
5034.72	
Date	Conc
April 2024	0.006

M-63A	
4993.74	
Date	Conc
April 2024	0.0023

MW-67A	
4998.16	
Date	Conc
April 2024	0.0051

MW-66A	
5006.17	
Date	Conc
April 2024	0.0052

W-126R	
5023.88	
Date	Conc
April 2024	0.0045

0.01

5000

5010

5020

5030

Legend

CCR Monitoring Well Location

- CCR Compliance - Downgradient, Alluvial
- CCR Compliance - Downgradient Waste Boundary, Alluvial

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Estimated Alluvial Extent
- Approximate Extent of CCR Unit
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (April 2024)

- Groundwater Elevation (Dashed Where Inferred)

Arsenic Concentration in Groundwater (April 2024)

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

Notes and Abbreviations:

M-43A	Well Identification
4993.42	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) April 2024
5002.91	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl) April 2024
5080.91	CCR Surface Water Elevation April 2024
**	Pond elevations provided by Montgomery & Associates
0.0024	Arsenic concentration (mg/L)
J	Result is estimated quantity
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 400 800 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-1

Arsenic Iso-Concentration Map for the Fly Ash Pond Semi Annual Event 1 2024

Job No.	US0023513.9708
PM:	MBH
Date:	1/28/2025
Scale:	1"= 800'

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M-51A	
5032.43	
Date	Conc
November 2024	0.0281

M-44D	
5002.11	
Date	Conc
November 2024	< 0.0025

M-45A	
4992.98	
Date	Conc
November 2024	< 0.0025

MW-65A	
5011.58	
Date	Conc
November 2024	< 0.0025

M-43A	
4994.54	
Date	Conc
November 2024	< 0.0025

M-46A	
5000.95	
Date	Conc
November 2024	0.0074

M-50A	
5018.33	
Date	Conc
November 2024	0.0033

FAP Surface	
5080.91**	
Date	Conc
November 2024	0.75

MW-84A	
4998.76	
Date	Conc
November 2024	0.0147

W-125	
5001.15	
Date	Conc
November 2024	0.0036

MW-80A	
4996.69	
Date	Conc
November 2024	< 0.0025

W-123R	
5034.91	
Date	Conc
November 2024	0.0053

M-63A	
4993.18	
Date	Conc
November 2024	< 0.0025 / 0.0027

MW-66A	
5006.51	
Date	Conc
November 2024	< 0.0025

MW-85C	
4997.61	
Date	Conc
November 2024	0.0184 / 0.0191

MW-81A	
4996.80	
Date	Conc
November 2024	< 0.0025

MW-67A	
5000.14	
Date	Conc
November 2024	0.0046

MW-82A	
4994.99	
Date	Conc
November 2024	NS

MW-83A	
4998.98	
Date	Conc
November 2024	0.0035

W-126R	
5025.20	
Date	Conc
November 2024	< 0.0025

0.01

5000 5010 5020 5030

Legend

CCR Monitoring Well Location

- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Estimated Alluvial Extent
- Approximate Extent of CCR Unit
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (November 2024)

- Groundwater Elevation (Dashed Where Inferred)

Arsenic Concentration in Groundwater (November 2024)

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

Notes and Abbreviations:

M-43A	Well Identification
4994.54	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) November 2024
5001.15	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl) November 2024
5080.91	CCR Surface Water Elevation November 2024
**	Pond elevations provided by Montgomery & Associates
< 0.0025	Arsenic concentration (mg/L)
0.0184 / 0.191	Original / Duplicate Sample
J	Result is estimated quantity
NS	Not Sampled
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 400 800 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-2

Arsenic Iso-Concentration Map for the Fly Ash Pond Semi Annual Event 2 2024

Job No.	US0023513.9708
PM:	MBH
Date:	1/28/2025
Scale:	1"= 800'

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M-51A	
5032.24	
Date	Conc
April 2024	2.2

M-44D	
5002.11	
Date	Conc
April 2024	0.62 / 0.69

M-45A	
4993.42	
Date	Conc
April 2024	0.50

M-43A	
4994.54	
Date	Conc
April 2024	< 0.4

MW-65A	
5013.39	
Date	Conc
April 2024	2.1

M-46A	
5000.18	
Date	Conc
April 2024	0.42

M-63A	
4993.18	
Date	Conc
April 2024	< 0.4

M-50A	
5019.43	
Date	Conc
April 2024	2.0

FAP Surface	
5080.91**	
Date	Conc
April 2024	<400

W-125	
5002.91	
Date	Conc
April 2024	0.51

W-123R	
5034.72	
Date	Conc
April 2024	3.4

MW-67A	
4998.16	
Date	Conc
April 2024	0.64

MW-66A	
5006.17	
Date	Conc
April 2024	0.57

W-126R	
5025.20	
Date	Conc
April 2024	4.2

5000
5010
5020
5030

Legend

CCR Monitoring Well Location

- CCR Compliance - Downgradient, Alluvial
- CCR Compliance - Downgradient Waste Boundary, Alluvial

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Estimated Alluvial Extent
- Approximate Extent of CCR Unit
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (April 2024)

- Groundwater Elevation (Dashed Where Inferred)

Fluoride Concentration in Alluvial Aquifer (April 2024)

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

Notes and Abbreviations:

M-43A	Well Identification
4994.54	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) April 2024
5002.11	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl) April 2024
5080.91	CCR Surface Water Elevation April 2024
**	Pond elevations provided by Montgomery & Associates
< 0.4	Fluoride concentration (mg/L)
0.62 / 0.69	Original / Duplicate Sample
NS	Not Sampled
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 400 800 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-3

Fluoride Iso-Concentration Map for the Fly Ash Pond - Semi Annual Event 1 2024

Job No.	US0023513.9708
PM:	MBH
Date:	1/28/2025
Scale:	1"= 800'

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M-51A	
5032.43	
Date	Conc
November 2024	4.89

M-44D	
5002.11	
Date	Conc
November 2024	0.717

M-45A	
4992.98	
Date	Conc
November 2024	0.53

MW-65A	
5011.58	
Date	Conc
November 2024	1.48

M-50A	
5018.33	
Date	Conc
November 2024	2.1

FAP Surface	
5080.91**	
Date	Conc
November 2024	113

M-43A	
4994.54	
Date	Conc
October 2024	1.0 J

M-46A	
5000.95	
Date	Conc
November 2024	0.82

MW-84A	
4998.76	
Date	Conc
November 2024	1.11 J

W-125	
5001.15	
Date	Conc
November 2024	0.279

MW-80A	
4996.69	
Date	Conc
November 2024	0.321

W-123R	
5034.91	
Date	Conc
November 2024	6.75

M-63A	
4993.18	
Date	Conc
October 2024	0.225 J / 0.191 J

MW-66A	
5006.51	
Date	Conc
November 2024	1.26 J

MW-85C	
4997.61	
Date	Conc
November 2024	0.242 / 0.252

MW-81A	
4996.80	
Date	Conc
November 2024	< 0.761

MW-67A	
5000.14	
Date	Conc
November 2024	0.706 J

MW-82A	
4994.99	
Date	Conc
November 2024	NS

MW-83A	
4998.98	
Date	Conc
November 2024	< 0.761

W-126R	
5025.20	
Date	Conc
November 2024	0.84 J

5000
5010
5020
5030
4
4

Legend

CCR Monitoring Well Location

- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Estimated Alluvial Extent
- Approximate Extent of CCR Unit
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (November 2024)

- Groundwater Elevation (Dashed Where Inferred)

Fluoride Concentration in Alluvial Aquifer (November 2024)

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

Notes and Abbreviations:

M-46A	Well Identification
4994.54	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) November 2024
5001.15	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl) November 2024
5080.91	CCR Surface Water Elevation November 2024
**	Pond elevations provided by Montgomery & Associates
0.82	Floride concentration (mg/L)
0.242 / 0.252	Original / Duplicate Sample
J	Result is estimated quantity
NS	Not Sampled
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 400 800 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-4

Fluoride Iso-Concentration Map for the Fly Ash Pond - Semi Annual Event 2 2024

Job No. US0023513.9708
PM: MBH
Date: 1/28/2025
Scale: 1"= 800'

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M-51A	
5032.24	
Date	Conc
April 2024	0.39

M-44D	
5004.45	
Date	Conc
April 2024	0.045 / 0.025

M-45A	
4993.42	
Date	Conc
April 2024	0.18

M-43A	
4995.31	
Date	Conc
April 2024	0.16

M-50A	
5019.43	
Date	Conc
April 2024	0.39

FAP Surface	
5080.91**	
Date	Conc
April 2024	8.60

MW-65A	
5013.39	
Date	Conc
April 2024	0.49

W-125	
5002.91	
Date	Conc
April 2024	0.033

M-46A	
5000.18	
Date	Conc
April 2024	0.23

W-123R	
5034.72	
Date	Conc
April 2024	0.58

M-63A	
4993.74	
Date	Conc
April 2024	0.072 / 0.072

MW-67A	
4998.16	
Date	Conc
April 2024	0.12

MW-66A	
5006.17	
Date	Conc
April 2024	0.46

W-126R	
5023.88	
Date	Conc
April 2024	0.66

0.31

0.40

0.50

5000

5010

5020

5030

Legend

CCR Monitoring Well Location

- CCR Compliance - Downgradient, Alluvial
- CCR Compliance - Downgradient Waste Boundary, Alluvial

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Estimated Alluvial Extent
- Approximate Extent of CCR Unit
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (April 2024)

- Groundwater Elevation (Dashed Where Inferred)

Lithium Concentration in Alluvial Aquifer (April 2024)

- > 0.31 mg/L
- > 0.40 mg/L
- > 0.50 mg/L
- GWPS (0.31 mg/L; Dashed Where Inferred)

Notes and Abbreviations:

M-43A	Well Identification
4995.31	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) April 2024
5002.91	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl) April 2024
5080.91	CCR Surface Water Elevation April 2024
**	Pond elevations provided by Montgomery & Associates
0.16	Lithium concentration (mg/L)
0.072 / 0.072	Original / Duplicate Sample
NS	Not Sampled
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 400 800 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-5

Lithium Iso-Concentration Map for the Fly Ash Pond - Semi Annual Event 1 2024

Job No.	US0023513.9708
PM:	MBH
Date:	1/28/2025
Scale:	1"= 800'

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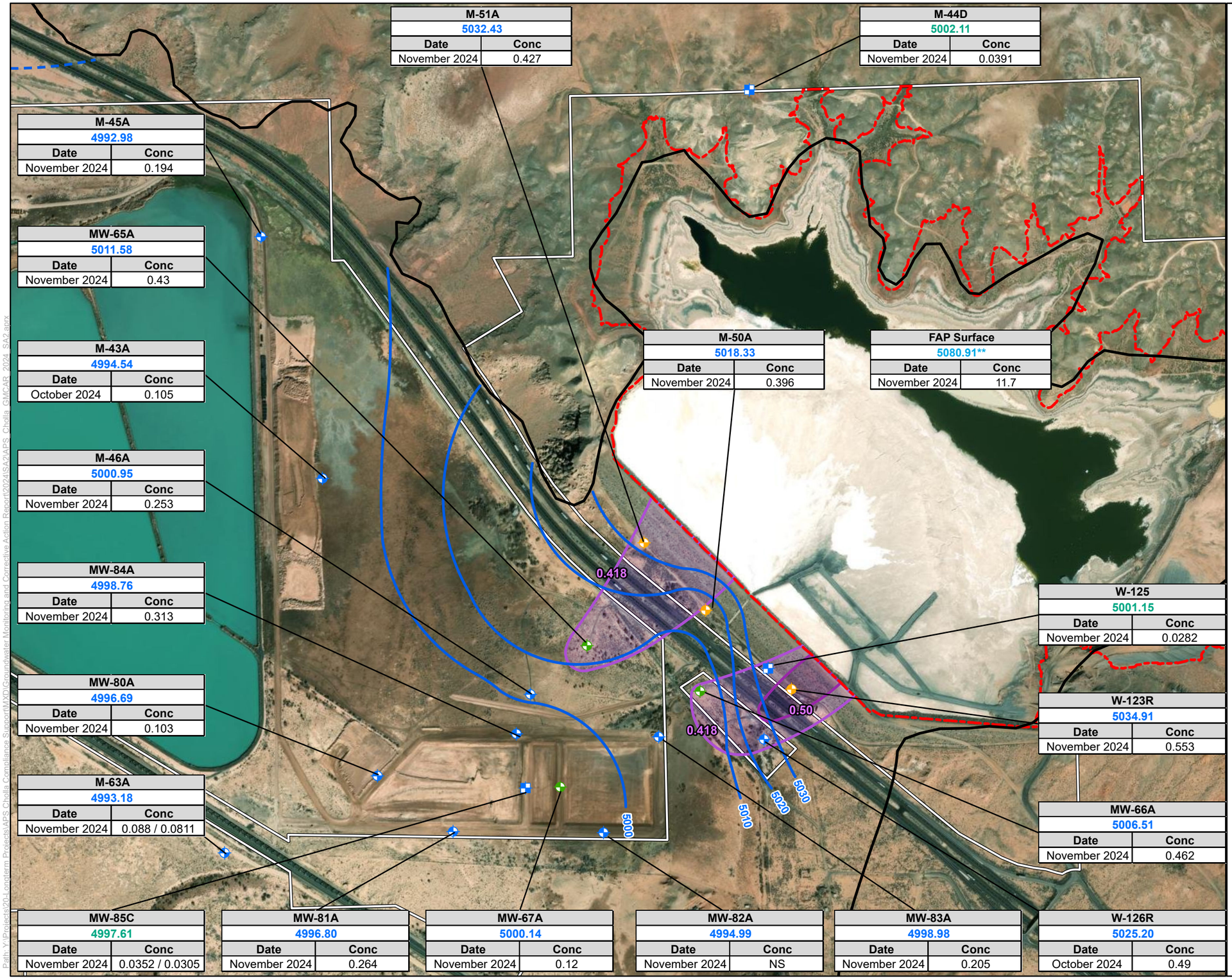

Legend

CCR Monitoring Well Location

- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Estimated Alluvial Extent
- Approximate Extent of CCR Unit
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (November 2024)

- Groundwater Elevation (Dashed Where Inferred)

Lithium Concentration in Alluvial Aquifer (November 2024)

- > 0.418 mg/L
- > 0.50 mg/L
- GWPS (0.418 mg/L; Dashed Where Inferred)

Notes and Abbreviations:

M-43A	Well Identification
4995.54	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) November 2024
5002.11	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl) November 2024
5080.91	CCR Surface Water Elevation November 2024
**	Pond elevations provided by Montgomery & Associates
0.105	Lithium concentration (mg/L)
0.0468 / 0.0018	Original / Duplicate Sample
NS	Not Sampled
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 400 800 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-6

Lithium Iso-Concentration Map for the Fly Ash Pond - Semi Annual Event 2 2024

Job No.	US0023513.9708
PM:	MBH
Date:	1/27/2025
Scale:	1"= 800'

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M-51A	
5032.24	
Date	Conc
April 2024	0.13

M-44D	
5004.45	
Date	Conc
April 2024	0.0017

M-45A	
4993.42	
Date	Conc
April 2024	0.0030

M-43A	
4995.31	
Date	Conc
April 2024	0.0045

M-50A	
5019.43	
Date	Conc
April 2024	0.0089

FAP Surface	
5080.91**	
Date	Conc
April 2024	0.49

MW-65A	
5013.39	
Date	Conc
April 2024	0.12

W-125	
5002.91	
Date	Conc
April 2024	0.0031

M-46A	
5000.18	
Date	Conc
April 2024	0.010

W-123R	
5034.72	
Date	Conc
April 2024	0.12

M-63A	
4993.74	
Date	Conc
April 2024	0.0034/0.0035

MW-67A	
4998.16	
Date	Conc
April 2024	0.0019

MW-66A	
5006.17	
Date	Conc
April 2024	0.017

W-126R	
5023.88	
Date	Conc
April 2024	0.26

0.1

0.1

5000

5010

5020

5030

Legend

CCR Monitoring Well Location

- CCR Compliance - Downgradient, Alluvial
- CCR Compliance - Downgradient Waste Boundary, Alluvial

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Estimated Alluvial Extent
- Approximate Extent of CCR Unit
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (April 2024)

- Groundwater Elevation (Dashed Where Inferred)

Molybdenum Concentration in Alluvial Aquifer (April 2024)

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

Notes and Abbreviations:

M-43A	Well Identification
4995.31	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) April 2024
5002.91	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl) April 2024
5080.91	CCR Surface Water Elevation April 2024
**	Pond elevations provided by Montgomery & Associates
0.0045	Molybdenum concentration (mg/L)
0.0034 / 0.0035	Original / Duplicate Sample
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 400 800 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-7

Molybdenum Iso-Concentration Map for the Fly Ash Pond - Semi Annual Event 1 2024

Job No.	US0023513.9708
PM:	MBH
Date:	1/28/2025
Scale:	1"= 800'

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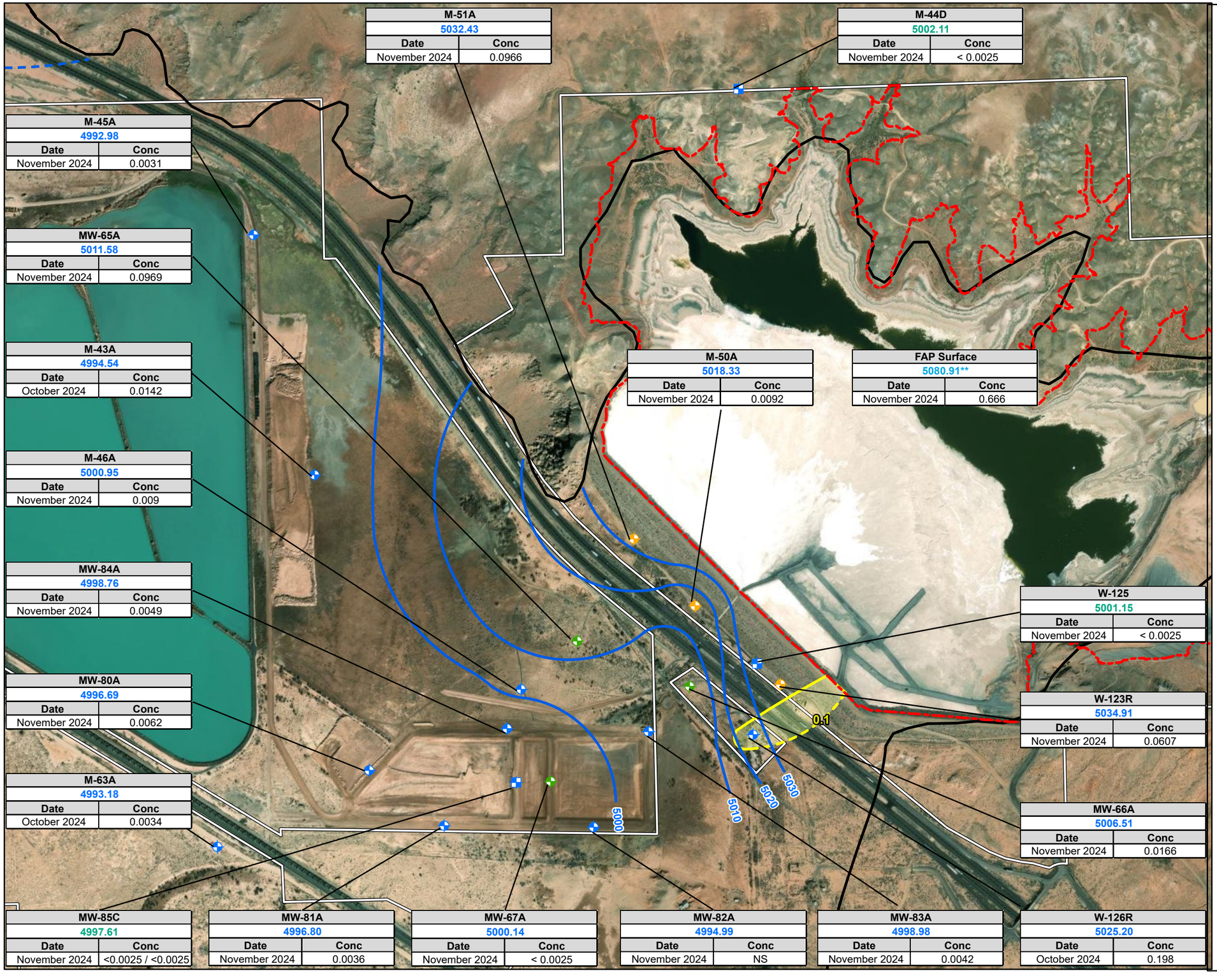

Legend

CCR Monitoring Well Location

- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Estimated Alluvial Extent
- Approximate Extent of CCR Unit
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (November 2024)

- Groundwater Elevation (Dashed Where Inferred)

Molybdenum Concentration in Alluvial Aquifer (November 2024)

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

Notes and Abbreviations:

M-43A	Well Identification
4994.54	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) November 2024
5002.11	C-Aquifer/Moenkopi Wupatki Groundwater Elevation (ft amsl) November 2024
5080.91	CCR Surface Water Elevation November 2024
**	Pond elevations provided by Montgomery & Associates
0.0142	Molybdenum concentration (mg/L)
< 0.0025 / < 0.0025	Original / Duplicate Sample
J	Result is estimated quality
NS	Not Sampled
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 400 800
Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-8

Molybdenum Iso-Concentration Map for the Fly Ash Pond - Semi Annual Event 2 2024

Job No. US0023513.9708
PM: MBH
Date: 1/28/2025
Scale: 1"= 800'

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W-305	
5026.74	
Date	Conc
April 2024	0.018

W-306	
5028.48	
Date	Conc
April 2024	<0.0025

W-314	
5040.90	
Date	Conc
April 2024	0.051

W-308	
5026.57	
Date	Conc
April 2024	0.00062

W-309	
5027.33	
Date	Conc
April 2024	< 0.0005

M-53A	
5040.14	
Date	Conc
April 2024	0.0076

BAP Surface	
5110.71**	
Date	Conc
April 2024	<0.01

M-55A	
5027.67	
Date	Conc
April 2024	< 0.0005

W-303	
5022.05	
Date	Conc
April 2024	0.019

MW-74M	
5031.42	
Date	Conc
April 2024	0.015

MW-73A	
5034.50	
Date	Conc
April 2024	0.015

W-301	
5003.27	
Date	Conc
April 2024	0.024

MW-71A	
5040.59	
Date	Conc
April 2024	0.014

MW-72M	
5031.53	
Date	Conc
April 2024	<0.01

W-307R	
5025.62	
Date	Conc
April 2024	0.052 / 0.053

W-304	
5012.62	
Date	Conc
April 2024	0.011

MW-79A	
5013.44	
Date	Conc
April 2024	0.011

M-52A	
5029.78	
Date	Conc
April 2024	0.039

MW-70M	
5029.73	
Date	Conc
April 2024	0.016

MW-77A	
4995.80	
Date	Conc
April 2024	0.0054

MW-69A	
5033.01	
Date	Conc
April 2024	0.016

MW-78A	
5006.77	
Date	Conc
April 2024	0.0019

W-302	
5004.30	
Date	Conc
April 2024	0.0060

MW-76A
Dry

5040 5030 5020 5010 5000 4990

0.05 0.04 0.03 0.02 0.01 0.006

See Detail A

0.02 0.03 5030

0 10 20 30 Feet

Detail A

Legend

CCR Monitoring Well Location

- CCR Compliance - Downgradient, Alluvial
- CCR Compliance - Downgradient Waste Boundary, Alluvial
- CCR Compliance - Downgradient Waste Boundary, Moenkopi Formation (Moqui Member)

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- Moenkopi Formation (Moqui Member) Monitoring Well
- Estimated Alluvial Extent
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (April 2024)

- Groundwater Elevation (Dashed Where Inferred)

Cobalt Concentration in Groundwater (April 2024)

- >0.006 mg/L
- >0.01 mg/L
- >0.02 mg/L
- >0.03 mg/L
- >0.04 mg/L
- >0.05 mg/L
- GWPS (0.0060 mg/L; Dashed Where Inferred)

Notes and Abbreviations:

W-304	Well Identification
5012.62	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) April 2024
5110.71	CCR Surface Water Elevation April 2024
**	Pond elevations provided by Montgomery & Associates
NM	Not Measured
0.011	Cobalt concentration (mg/L)
0.052 / 0.053	Original / Duplicate Sample
J	Result is estimated quantity
U	The analyte was analyzed for, but not detected
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 300 600 Feet

N

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-9

Cobalt Iso-Concentration Map for the Bottom Ash Pond - Semi Annual Event 1 2024

Job No.	US0023513.9708
PM:	MBH
Date:	1/27/2025
Scale:	1"= 600'

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W-305	
5024.95	
Date	Conc
November 2024	0.0144

W-306	
5027.53	
Date	Conc
October 2024	<0.0019

W-314	
5041.71	
Date	Conc
October 2024	0.0405

W-308	
5025.58	
Date	Conc
October 2024	0.0018

W-309	
5026.80	
Date	Conc
December 2024	< 0.002

M-53A	
5034.96	
Date	Conc
October 2024	0.006

BAP Surface	
5110.71**	
Date	Conc
November 2024	<0.0025

M-55A	
5027.12	
Date	Conc
October 2024	< 0.0005

MW-74M	
5030.04	
Date	Conc
October 2024	0.0136

W-303	
5019.46	
Date	Conc
October 2024	0.015

MW-73A	
5030.59	
Date	Conc
October 2024	0.013

W-301	
5002.78	
Date	Conc
October 2024	0.0209

MW-71A	
5037.94	
Date	Conc
October 2024	0.0118

MW-72M	
5030.38	
Date	Conc
October 2024	0.0026

W-307R	
5024.18	
Date	Conc
October 2024	0.0468 / 0.0514

W-304	
5011.58	
Date	Conc
October 2024	0.0101

M-52A	
5028.23	
Date	Conc
October 2024	0.0395

MW-70M	
5028.04	
Date	Conc
October 2024	0.0144

MW-79A	
5012.41	
Date	Conc
November 2024	0.0106

MW-77A	
4995.23	
Date	Conc
October 2024	0.0051

MW-69A	
5031.37	
Date	Conc
October 2024	0.0132

MW-78A	
5006.02	
Date	Conc
October 2024	< 0.0025

W-302		MW-76A
5004.07		Dry
Date	Conc	
October 2024	0.0066	

5040 5030 5020 5010 5000 4990 4990

0.04 0.03 0.02 0.01 0.006

See Detail A

0 300 600 Feet

N

0 10 20 30 Feet

Detail A

Legend

CCR Monitoring Well Location

- CCR Compliance - Downgradient, Alluvial
- CCR Compliance - Downgradient Waste Boundary, Alluvial
- CCR Compliance - Downgradient Waste Boundary, Moenkopi Formation (Moqui Member)

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- Moenkopi Formation (Moqui Member) Monitoring Well
- Estimated Alluvial Extent
- APS Land Ownership

Alluvial Aquifer Potentiometric Surface (November 2024)

- Groundwater Elevation (Dashed Where Inferred)

Cobalt Concentration in Groundwater (November 2024)

- >0.006 mg/L
- >0.01 mg/L
- >0.02 mg/L
- >0.03 mg/L
- >0.04 mg/L
- GWPS (0.0060 mg/L; Dashed Where Inferred)

Notes and Abbreviations:

W-304	Well Identification
5011.58	Alluvial/ Moenkopi Moqui Groundwater Elevation (ft amsl) November 2024
5110.71	CCR Surface Water Elevation November 2024
**	Pond elevations provided by Montgomery & Associates
NM	Not Measured
0.0101	Cobalt concentration (mg/L)
0.0468 / 0.0514	Original / Duplicate Sample
J	Result is estimated quantity
U	The analyte was analyzed for, but not detected
ft amsl	Feet above mean sea level
mg/L	Milligrams per liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

Arizona Public Service
Cholla Power Plant
Navajo County, Arizona

Figure 4-10

Cobalt Iso-Concentration Map for the Bottom Ash Pond - Semi Annual Event 2 2024

Job No.	US0023513.9708
PM:	MBH
Date:	1/28/2025
Scale:	1"= 600'

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APPENDIX

A

MW-80A, MW-81A, MW-82A, MW-83A, MW-84A, MW-85C WELL COMPLETION REPORT

ARIZONA PUBLIC SERVICE COMPANY

CHOLLA POWER PLANT

MW-80A, MW-81A, MW-82A, MW-83A, MW-84A, MW-85C WELL COMPLETION REPORT

JANUARY 10, 2025

MW-80A, MW-81A, MW-82A, MW-83A, MW-84A, MW-85C WELL COMPLETION REPORT

CHOLLA POWER PLANT

ARIZONA PUBLIC SERVICE COMPANY

CHOLLA POWER PLANT
JOSEPH CITY, ARIZONA

PROJECT NO.: US0023513.3371
DATE: JANUARY 10, 2025

WSP USA ENVIRONMENT & INFRASTRUCTURE INC.
1230 EAST WASHINGTON ST. SUITE 405
TEMPE, AZ 85288

T: 602-733-6000

WSP.COM

CERTIFICATION STATEMENT

I, Rebecca A. Weaver, as a qualified groundwater scientist and professional engineer, have reviewed this report titled MW-80A, MW-81A, MW-82A, MW-83A, MW-84A, MW-85C Well Completion Report, Cholla Power Plant, Joseph City, Arizona, Project # US0023513.3371 dated January 10, 2025. I certify that the groundwater monitoring system components that are documented in this report have been designed and constructed for the Arizona Public Service Company Cholla Power Plant as required for compliance with coal combustion residuals (CCR) groundwater monitoring and corrective action requirements detailed in 40 Code of Federal Regulations (CFR) Part 257.

0000



Signed:

Dated: January 10, 2025

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ACRONYMS AND ABBREVIATIONS

APS	Arizona Public Service Company
BAP	Bottom Ash Pond
bgs	below ground surface
C-aquifer	Coconino aquifer
CCR	coal combustion residuals
CFR	Code of Federal Regulations
FAP	Fly Ash Pond
ft	foot, feet
gpm	gallons per minute
NTUs	nephelometric turbidity units
PVC	polyvinyl chloride
SCH	schedule
Site	Cholla Power Plant
WSP	WSP USA Environment & Infrastructure Inc.
YJD	Yellow Jacket Drilling Services, LLC

1 INTRODUCTION

On behalf of Arizona Public Service Company (APS), WSP USA Environment & Infrastructure Inc. (WSP) prepared this Well Completion Report to document the siting, drilling, installation, and development of six new monitoring wells at the Cholla Power Plant (the Site) in Joseph City, Arizona. This report documents well installation activities required by 40 Code of Federal Regulations (CFR) Part 257 and Subpart D, *Standards for the Disposal of Coal Combustion Residuals (CCR) in Landfills and Surface Impoundments*. The new monitoring wells were installed to establish a groundwater monitoring network at the recently constructed Evaporation Pond, located south of the US Highway 40 and east of Cholla Lake. The monitoring well network is intended to provide baseline water quality data before discharging non-CCR seepage to the pond. Additionally, the wells serve as supplementary monitoring points for groundwater downgradient of the Fly Ash Pond (FAP).

1.1 SITE DESCRIPTION

A description of the Site setting and its interaction with the Evaporation Pond monitoring well network is included in the following subsections. **Figure 1** presents an overview of the Site location. The locations of the wells in relation to other Site features are included on **Figure 2**.

1.1.1 FACILITY DESCRIPTION

The Cholla Power Plant is an operating coal-fired steam power plant located near Joseph City, Arizona. The plant currently operates two electric steam-generating units, Units 1 and 3, owned and operated by APS, with a combined nameplate capacity of 425.9 megawatts. Unit 2 was retired in October of 2015 and Unit 4 was retired in December 2020. Coal burned at the plant was previously sourced from the McKinley Mine in New Mexico. When the McKinley Mine closed in 2009, coal supply transitioned to the Lee Ranch and El Segundo mines near Grants, New Mexico. The remaining boiler units are scheduled for shutdown in 2025.

At present, water collected by seepage extraction systems at the FAP and Bottom Ash Pond (BAP) is reused in plant processes. Following the boiler shutdown, the collected seepage will be rerouted to the new Evaporation Pond, where it will be evaporated using natural and enhanced evaporation methods.

The Evaporation Pond is located southwest and downgradient of the FAP. The Evaporation Pond is a 42-acre, single-lined impoundment divided into three hydraulically connected segments for operational flexibility (**Figure 2**). The pond is constructed with a 60-mil high-density polyethylene (HDPE) liner over a low permeability geosynthetic clay liner. The design provides sufficient surface area to evaporate seepage water collected from the FAP and BAP intercept systems, while also providing sufficient depth to store accumulated salts, wet-year precipitation, and runoff from a 100-year, 24-hour storm event. Discharges to the Evaporation Pond are regulated under the Cholla Power Plant's Aquifer Protection Permit (APP) P-100568, issued by the Arizona Department of Environmental Quality (ADEQ).

1.1.2 ENVIRONMENTAL SETTING

Unless otherwise noted, the following information is abstracted from Montgomery & Associates (2011, 2017) and AMEC Environment & Infrastructure, Inc. (2012).

Climate. The plant is in an arid climate within the Little Colorado River Basin. The area receives an average of 6 to 12 inches of precipitation annually. The evaporation rate exceeds the rate of precipitation by an order of magnitude.

Topography. Cholla is located at an average elevation of approximately 5,025 feet (ft) above mean sea level in the Colorado Plateau physiographic province of northeastern Arizona. The area is characterized by canyons, high elevations, and narrow, widely spaced riverbeds. The topography of the plant area is characterized by rolling

terrain, open vistas, and incised drainages/arroyos. In the vicinity of the plant, the ground surface gently slopes towards the Little Colorado River to the south at approximately 60 feet (ft) per mile; however, surface drainage immediately near Cholla Reservoir flows towards the reservoir. Approximately 2 miles north and south of the plant, the ground surface rises out of the alluvial floodplain to an elevation of 5,100 to 5,200 ft above mean sea level.

Surface Water Hydrology. The Evaporation Pond facility is located east of Cholla Lake and north of the Little Colorado River within the Middle Little Colorado watershed. The Little Colorado River is a meandering, perennial stream with intermittent reaches in a large alluvial floodplain. The Hunt Stock Pond is located northeast of the Evaporation Pond. The Hunt Stock Pond typically contains water that infiltrates and impacts shallow groundwater in the area around it.

Site Geology. The Colorado Plateau, on which the plant is located, is typified by horizontal layered sequences of sedimentary rock, primarily sandstones, siltstones, and claystones.

The geological units relevant to the new Evaporation Pond wells include the following, in descending stratigraphic order:

- Little Colorado River and other wash alluviums: The quaternary surface alluviums overlie bedrock formations in localized areas at Cholla and surrounding coal combustion residuals (CCR) units. The alluviums are unconsolidated, heterogeneous, and consist of clay, silt, sand, and gravel. The alluviums range in thickness from non-existent to approximately 200 ft thick, and in general are thickest underneath the plant and Cholla Reservoir. The alluviums range from approximately 50 ft thick in the vicinity of the FAP dam and the Evaporation Pond.
- Moenkopi Formation: The Moenkopi Formation is the uppermost geologic unit beneath the plant, CCR units and Evaporation Pond, and is present at land surface in areas where the alluvium is non-existent. The thickness of the Moenkopi Formation near the plant ranges from non-existent to over 300 ft thick. Where it is sufficiently thick, the Moenkopi Formation acts as an aquitard between the shallow alluvial aquifer and the underlying Coconino aquifer (C-aquifer). The Moenkopi Formation consists of the following three members:
  - Holbrook Member: The unit is a relatively permeable, well-consolidated sandstone. The Holbrook Member is the uppermost member of the Moenkopi Formation and is not generally present in the subsurface in the vicinity of the plant.
  - Moqui Member: The unit is the primary confining unit within the Moenkopi Formation and consists of maroon and greenish mudstone with abundant gypsum. The Moqui Member is up to approximately 250 to 300 ft thick near the plant.
  - Wupatki Member: The unit is the lowest member of the Moenkopi Formation and is approximately 30 to 50 ft thick. The Wupatki Formation is composed of relatively permeable sandstone and is in hydraulic connection with the underlying Coconino Sandstone.
- Coconino Sandstone: The Permian-age Coconino Sandstone is the principal lithologic unit of the C-aquifer, a regionally important aquifer for water supply. It is composed of very fine- to fine-grained sandstone with variable permeability depending on the degree of fracturing and cementation. The unit is approximately 375 to 400 ft thick in the vicinity of the plant.

Applicable Hydrostratigraphy. Two relevant hydrostratigraphic units are conceptualized beneath the plant and associated CCR units. The units form the basis for the hydrogeologic Conceptual Site Model (CSM) developed by Montgomery & Associates (2011, 2017) for the purpose of evaluating compliance wells for the CCR Groundwater Monitoring System.

The first hydrogeologic unit, the Alluvial Aquifer (consisting of the Little Colorado River, and other wash alluviums), is present beneath the plant area, Cholla Reservoir, and Little Colorado River drainage channels adjacent to the BAP and FAP. The alluvial aquifer in the area receives recharge from the Little Colorado River, Tanner Wash, other contributing drainage channels and any leakage through anthropogenic features such as the reservoir and the nearby Joseph City Canal. The alluvial aquifer is not used as a drinking water supply but does support a riparian habitat along natural surface water channels. Depth to water in the alluvial aquifer ranges from several feet to several tens of feet below land surface in the Cholla area, varying spatially based on proximity to recharge sources and topography, and seasonally based on rainfall-runoff patterns. Where present, groundwater flows generally in the downstream direction of the drainages under which it is present, that is, east

to west in the Little Colorado River. Groundwater flow in the Little Colorado River alluvium is also influenced by deeper paleochannels that may not coincide with the present river channel.

The second hydrogeologic unit is the C-aquifer, which consists of the Coconino Sandstone and Schnebly Hill Formation in the vicinity of the plant. Groundwater in the C-aquifer is present under confined to semi-confined conditions in areas north of the Little Colorado River where the Moqui member of the Moenkopi Formation (Moqui) acts as a confining bed. Groundwater movement in the C-aquifer is generally to the north. However, until recently, pumping from the Cholla production well field (south and west of the plant) created a cone of depression that influenced the localized groundwater flow in the area. Groundwater pumping rates from the production well field have significantly declined since shutdown of electrical generating Unit 2 in 2015 and Unit 4 in 2020 and a corresponding increase in the piezometric surface of the C-aquifer has been observed. Near the FAP, the inferred flow of groundwater in the C-aquifer is to the west or northwest, possibly due to the broad, northwest-trending anticline that extends from the vicinity of the FAP to near Joseph City.

In areas where the C-aquifer in the Coconino Sandstone is confined (generally north of the Little Colorado River), the Moqui aquitard limits hydraulic connection between the alluvial aquifer and the C-aquifer and is effectively bedrock when considering water quality conditions and groundwater movement in a significant portion of the alluvial aquifer. However, connections between the C-aquifer and the alluvial aquifer are becoming better understood as the C-aquifer recovers from long-term production well pumping associated with plant operations. Recent water level monitoring indicates a regional increase in groundwater elevations in the alluvial aquifer that appears to be related to upwelling of groundwater from the C-aquifer in areas where the Moqui is not present or insufficiently thick.

Additional evidence that hydraulic interactions between the relevant hydrostratigraphic units and the Moqui are complex includes the results of investigations which indicate localized saturation occurs in the uppermost layer of the Moqui downgradient of the FAP. The lenses of saturation in the Moqui occur principally at the base of historical drainage channels where the unit is weathered or where penetrations from piezometer or monitoring well installation activities have fractured the mudstone of the Moqui and allowed overlying alluvial groundwater to infiltrate into the unit (WSP 2023b).

1.2 BASIS FOR WELL INSTALLATION

A comprehensive description of the Site and its background is provided in the *Annual Groundwater Monitoring and Corrective Action Report for 2023* (WSP, 2024a). The newly installed monitoring wells are intended to monitor the uppermost aquifer at the Evaporation Pond, establishing a baseline representation of groundwater quality in combination with existing groundwater quality data collected from CCR downgradient compliance wells MW-65A and MW-64A, prior to the discharge of non-CCR seepage water into the pond. Existing characterization of potential releases from the FAP are ongoing and include the monitoring program outlined in the *Annual Groundwater and Corrective Action Report for 2023* (WSP, 2024A). Currently there are four contaminants of concern present at concentration above the respective groundwater protection standards in groundwater downgradient of the FAP including arsenic, fluoride, lithium, and molybdenum. The plumes from molybdenum and lithium extend to the northeastern portion of the Evaporation Pond and well MW-83A. Therefore, the monitoring wells will serve as supplementary wells for monitoring groundwater downgradient of the FAP and, if necessary, may be incorporated into the existing CCR compliance groundwater monitoring system to comply with the CCR Rule performance standard.

2 WELL INSTALLATION ACTIVITIES

The installation activities for the alluvial wells MW-80A, MW-81A, MW-82A, MW-83A, MW-84A, and Coconino sandstone well MW-85C are summarized in the following sections. Lithologic logs and well construction diagrams are included in **Appendix A**. A photographic log showcasing well installation activities is included in **Appendix B**. A daily activities log was kept for records of daily activities and well installation and is included in **Appendix C**. The locations of the new wells are shown in **Figure 2.**

2.1 PRE-MOBILIZATION ACTIVITIES

Prior to site mobilization, all required Notice of Intent to Drill permits were filed with the Arizona Department of Water Resources. The permits are included in **Appendix D**. WSP also prepared a Health and Safety Plan for the field operations and ensured that all WSP field personnel and subcontractors received APS Fossil Generation Contractor Safety training. WSP contracted with a licensed Arizona driller, Yellow Jacket Drilling Services, LLC (YJD) (license no. 1664) to conduct the well drilling activities.

2.2 WELL SITING

The five new alluvial wells (MW-80A, MW-81A, MW-82A, MW-83A, and MW-84A) were sited on the boundary of the Evaporation Pond, with some wells located upgradient and others downgradient. The new Coconino well (MW-85C) was sited within the footprint of the Evaporation Pond so that any changes in the C-aquifer in that vicinity could be detected.

Most wells are located along the perimeter of the Evaporation Pond, at the base of the riprap slopes, beyond the proposed utility access road. The exception is MW-85C, which is located within one of the north-south trending utility access roads inside the Evaporation Pond. Monitoring well MW-85C was installed at the road grade with a protective flush-mount vault to not impede the future operations and maintenance traffic.

The locations of the wells are included on **Figure 2.** Each well location was surveyed by a licensed professional land surveyor (Martin Surveying), and the results are included in **Appendix E**.

2.3 WELL DRILLING

Well drilling activities occurred started August 5 and finished on August 16, 2024. Prior to drilling, utility clearance was performed by Safe Site, LLC on August 5, 2024. Safe Site conducted a ground penetrating radar survey of all monitoring well locations and the immediate adjacent areas within 20 ft of the monitoring wells. The Site was under active construction during the drilling and well installation, with many utility location surveys conducted beforehand by the construction contractor (FHI). Much of the Site had already been excavated to depths greater than 40 feet for the installation and construction of the Evaporation Pond facility, and no utilities were encountered.

Pilot boreholes were hand augured to a depth of approximately 5 to 6 ft below ground surface (bgs) before the start of each borehole. Drilling was performed using rotosonic drilling technology in alluvial materials and air rotary in deeper hard bedrock. WSP field personnel observed and documented drilling activities, including lithologic logging, well construction, and pumping/development. Additionally, WSP field personnel attempted to verify water level at each location using a handheld water level meter once drilling was completed and prior to well construction at each borehole location when possible. YJD's well drillers report as submitted by YJD to Arizona Department of Water Resources supplemented with WSPs field boring logs for each of the monitoring wells are included in **Appendix D.** The following sections describe the lithologic and hydrogeologic conditions encountered in each boring.

2.3.1 MW-80A

The drilling of MW-80A began on August 6, 2024. The borehole was completed to 45 ft bgs on August 6, 2023. Alluvium was encountered from below the hand augured zone at 5 ft bgs to an approximate depth of 38 ft bgs. Clayey sand was encountered up to 27 ft bgs. At 27 ft bgs, groundwater was present within poorly graded sands with silt. The contact between the alluvium and the Moqui formation was observed at approximately 38 ft bgs. Perched water was present from 27 ft to approximately 41 ft, for a total saturated thickness of approximately 14 ft. Moisture decreased below the contact with the Moqui at 38 ft to 41 ft (classified as moist). At 41 ft to total depth of 45 ft the moisture decreased to a slightly moist to dry condition.

2.3.2 MW-81A

The drilling of MW-81A began on August 10, 2024. The borehole was completed to a depth of 55 ft bgs on the same day. Alluvium was encountered to a depth of approximately 49 ft bgs. Silty-clayey sand that was slightly moist was encountered to a depth of approximately 27 ft bgs and groundwater was encountered at a depth ranging from approximately 27 ft to 35 ft bgs. From 35 ft to 49 ft bgs moisture was classified as moist to wet, indicating potential perched groundwater conditions at MW-81A. The contact between the alluvium and the Moqui formation was observed at approximately 49 ft bgs, and some moisture was noted at depth within the Moqui formation to the total depth of 55 ft bgs. Saturated thickness in the location around MW-81A is estimated to be approximately 8 to 10 ft, with moist to slightly moist conditions potentially extending into the Moqui formation to the total depth of the borehole at 55 ft bgs.

2.3.3 MW-82A

The drilling of MW-82A began on August 9, 2024. The borehole was completed to a depth of 39 ft bgs on the same day. Alluvium was encountered to a depth of approximately 33 ft bgs. Moist conditions were encountered at approximately 15 ft bgs up to a depth of 25 ft bgs, indicating potential for perched groundwater. Groundwater was present at a depth of 25 ft bgs, predominantly in a poorly graded silty clayey sand layer. The saturated thickness persisted to the contact of the Moqui formation. The contact between the alluvium and the Moqui formation was observed at approximately 33 ft bgs. The Moqui formation contact was noted as slightly moist to moist and moderately to highly decomposed. Moist conditions persisted to a depth of approximately 35 ft bgs within the Moqui formation. From 35 ft bgs to the total depth of 38 ft bgs, the Moqui formation was noted as slightly moist to dry. The saturated thickness at MW-82A is approximately 10 ft.

2.3.4 MW-83A

The drilling of MW-83A began on August 8, 2024. The borehole was completed to 55 ft bgs the same day. The alluvium was present from 5 ft bgs to approximately 49 ft bgs. Alternating high plasticity clays with increases in fine sand suggest perched groundwater conditions. Intermittent moisture was encountered from approximately 15 ft to 25 ft bgs. Moisture increased from 25 ft bgs to 35 ft bgs, with the groundwater level at approximately 35 ft bgs, and saturated or wet conditions up to 49 ft bgs. The contact between the alluvium and the Moqui formation was observed at approximately 49 ft bgs. From 45 ft bgs to the contact of the Moqui formation at 49 ft bgs, a layer of high plasticity clayey sand with subrounded coarse gravel was encountered. The Moqui formation from 49 ft bgs to 55 ft bgs was slightly moist to dry.

2.3.5 MW-84A

The drilling of MW-84A began on August 7, 2024. The borehole was completed to 50 ft bgs the following day, August 8, 2024. The alluvium was present from 5 ft bgs to approximately 45 ft bgs. The contact between the alluvium and the Moqui formation was observed at approximately 45 ft bgs. Groundwater was encountered at 35 ft bgs. Intermittent and alternating zones of wet to moist to wet were observed in the alluvium between 35 and 45 ft bgs, with water to a depth of 45 ft bgs, suggesting that perched groundwater conditions may exist from 35 to 45

ft bgs. The contact between the alluvium and the Moqui formation was observed at approximately 45 ft bgs. Lenses of gypsum nodules were encountered from approximately 49 ft bgs to total depth.

2.3.6 MW-85C

The drilling of MW-85C began on August 11, 2024. The borehole was completed on August 13, 2024, to a total depth of 130 ft bgs. The alluvium was encountered to a depth of approximately 47 ft bgs. Groundwater was encountered at an approximate depth of 31 ft bgs within a silty-clayey sand layer. Moist to slightly moist conditions continued to the depth of the Moqui formation at 47 ft bgs. Cuttings from 47 ft bgs to approximately 55 ft bgs were noted as slightly moist. Hard drilling was encountered at 50 to 55 ft bgs, and conductor casing could only be advance to the depth of 50 ft bgs due to the hard bedrock conditions. Casing was extended to a depth of 50 ft bgs to seal off the alluvial aquifer, and drilling was converted to an 8-inch air rotary rig setup. Air rotary was completed for the remainder of the borehole to a depth of 130 ft bgs.

At 60 ft bgs the Wupatki formation was encountered, and groundwater was also noted at approximately 60 ft bgs. The groundwater production varied from approximately 2.5 gallons per minute (gpm) while drilling and 25 gpm when air was not surging. From 60 to 80 ft bgs the driller noted the loss of bit weight, which could indicate the presence of fractures and voids within the Wupatki formation. The Wupatki formation has been described as having a hydraulic connection to the C-aquifer in some areas of the Site (WSP 2024a). The observed abundance of groundwater within the Wupatki formation provided evidence that a connection between the Wupatki and C-aquifer could exist at MW-85C.

From approximately 88 to 95 ft bgs a gradational contact between the Wupatki formation and the C-aquifer was observed. The contact with the Coconino Sandstone was logged at the top of the interval at 88 ft bgs. At 95 ft bgs to the total depth of the borehole, Coconino Sandstone lithology became more massive and finer grained. Water production consistently measured between 10 and 20 gpm. Changes to the color of the circulating water was noted at approximately 120 ft bgs, transitioning from a brown to a light brown color. Little to no iron oxide staining was observed at 120 ft bgs to total depth as observed by cuttings and recorded in the core photologs (**Appendix B**). The hole was completed to a total depth of 130 ft bgs, within the fine-grained, moderately hard Coconino Sandstone.

2.4 WELL CONSTRUCTION

Monitoring wells were constructed by YJD using threaded, schedule (SCH) 80 polyvinyl chloride (PVC) casing and screen materials. Well construction details can be found on **Table 1** and construction diagrams are included in **Appendix A**.

2.4.1 WELL CONSTRUCTION SELECTION

Well construction for the Evaporation Pond wells followed the well designs presented in the project's technical specifications (WSP 2024b). The well screen interval depths were determined in the field based upon the presence of water noted within the drill cuttings. Alluvial wells were strategically screened to intercept the alluvial aquifer just above the Moqui formation.

MW-85C, completed in the Coconino Sandstone, targeted the C-aquifer. Well construction of MW-85C was constructed in general accordance with the technical specifications. The well screen for the C-aquifer was 20 ft in length, and the annular bentonite seals were increased slightly to ensure the upper alluvial aquifer and Wupatki formations were sealed across the contacts. The upper seal was placed from 88 ft to 101 ft bgs. The lower seal was placed from 129 ft to 130 ft bgs. A bentonite grout seal was extended to the surface as per the technical specifications. A well construction diagram is included in **Appendix A**.

2.4.2 MONITORING WELLS

Monitoring wells MW-80A, MW-81A, MW82-A, MW-83A, and MW-84A are each constructed of 4-inch nominal size flush threaded SCH 80 PVC blank casing and screen with 0.020-horizontal slot openings. MW-80A, MW-81A, MW82-A, MW-83A, and MW-84A were constructed to total depths of 45, 55, 38, 55, and 50 ft bgs, respectively. The monitoring well casing and screen assembly length vary depending on well construction. MW-82A consists of 20 ft of blank casing above the screen, with a total screen length of 10 ft. MW-80A consists of 30 ft of blank casing above the screen, with a total screen length of 10 ft. MW-81A, MW-83A, and MW-84A consist of 35 ft of blank casing above the screen, with a total screen length of 10 ft.

MW-85C was constructed with a 4-inch nominal size flush threaded SCH 80 PVC blank casing to 105 ft bgs, with a 20 ft screen from 105 to 125 ft bgs. A well cap was placed at the bottom of the PVC at a depth of 125 ft bgs. A 2-ft bentonite seal was placed at the bottom of the borehole at 128 to 130 ft bgs. A filter pack of 12-20 sand extending from the top of the bentonite seal to 2 ft above the screened interval was installed, followed by a 2-ft layer of 20-40 transition sand. Another bentonite seal 2 ft thick was installed on top of the transition sand, and cement grout was installed from the top of the bentonite seal to ground surface, with a total thickness of 88 ft. All annular materials were installed using a tremie pipe. Surface completions at each well consists of a 10-inch diameter flush-mount traffic-rated vault.

Monitoring well casing and screen assembly was centered in the borehole using three centralizers to provide a uniform annular space for installation of annular materials. Centralizers were placed no more than 20 ft apart.

2.5 WELL DEVELOPMENT

The Evaporation Pond wells were developed between August 22 and August 26, 2024. Development techniques varied based on the amount of water produced at each well, but generally consisted of the following:

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

Well development results are summarized in **Table 2** and well development field forms are included in **Appendix C**. Successful well development is typically defined by purging a well until water turbidity reaches less than 5 nephelometric turbidity units (NTUs) and field measurements of pH, temperature, and electrical conductivity have stabilized to a deviation of 10% or less between subsequent measurements. Successful well development was achieved at MW-83A and MW-84A. Turbidity was not reduced to a value below 5 NTUs at MW-80A, MW-81A, and MW-85C, with 5.83, 8.61, and 6.20 NTUs respectively. Field measurements of pH, temperature, and electrical conductivity all stabilized with a deviation of 10% or less between readings at MW-80A, MW-81A, and MW-85C. Therefore, WSP considers the wells to be successfully developed. Development of MW-82A was unsuccessful due to low yield, which prohibited sustained development pumping.

Average discharge rates sustained during pump development at the monitoring wells are summarized on **Table 2**. MW-85C sustained the highest discharge rate (2.5 gpm) and MW-83A sustained the lowest discharge rate (less than 0.25 gpm). Of the alluvial monitoring wells, MW-80A had the highest sustained discharge rate (0.75 gpm), MW-84A had the second highest sustained discharge rate (0.5 gpm), and MW-81A had the third highest sustained discharge rate (0.33 gpm), which indicates that transmissivity may be higher on the western side of the Evaporation Pond.

2.6 MANAGEMENT OF INVESTIGATION-DERIVED WASTE

Investigation-derived waste consisted of soil cuttings produced during drilling, which were free of coal ash, and groundwater pumped during well development. Drill cuttings were transported by forklift from the drill site to a location near the Evaporation Pond and placed with the existing excavated material generated during the

Evaporation Pond construction. The drill cuttings disposal location is included on **Figure 2**. Groundwater pumped from development activities was collected in water totes and transferred to the BAP for disposal.

3 SUMMARY AND RECOMMENDATIONS

Five monitoring wells were installed within the Little Colorado River Alluvium formation hydrostratigraphic unit, and one monitoring well was installed within the Coconino Sandstone hydrostratigraphic unit. The saturated thickness at the alluvial wells range from approximately 3 to 14 ft based on observations made during drilling and post-installation water-level measurements. The C-aquifer monitoring well has an approximate saturated thickness of 20 ft.

The five alluvial boreholes were drilled to increase the possibility of intercepting the alluvial aquifer, which is generally characteristic of perched water bearing zones within a predominant clayey sands and clays unit.

One borehole was selected to penetrate the lower C-aquifer to monitor the quality of the lower aquifer which may be confined from the upper alluvial aquifer. The presence of fractures and voids within the Wupatki formation may indicate interconnected water bearing zones within C-aquifer. Drill cuttings indicate a gradational contact between the Wupatki formation and Coconino Sandstone.

WSP recommends conducting baseline groundwater monitoring to establish the background groundwater quality at the Evaporation Pond prior to receipt of the non-CCR seepage. WSP suggests incorporating the new wells into the Site's CCR program as supplementary monitoring wells, to be sampled on a semi-annual basis. All wells, except MW-82A had at least 12 ft water column depth and sufficient yield and approximately 0.25 to 2 gpm to support collecting a groundwater sample. Groundwater sampling is not currently possible in MW-82A because it has a very low yield and small water column of less than 1 ft. WSP recommends MW-82A be included as a supplementary well and the groundwater elevation at the well monitored on the same schedule as the other wells to confirm that water levels remain below the amount required for sampling. If at some point in the future, the water levels or yield increase and are sufficient for sample collection, then a groundwater sample will be collected from MW-82A in the same manner as all other supplementary wells.

4 BIBLIOGRAPHY

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— WSP. 2024a. Annual Groundwater Monitoring and Corrective Action Report for 2023. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Cholla Power Plant, Joseph City, Arizona, Prepared on behalf of APS. Report dated January 31, 2024.

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TABLES

Table 1

Well Construction Summary

Well ID	ADWR Well Index Number	Well Designation	Hydrogeologic Unit	Total Borehole Depth (ft bgs)	Borehole Size (in)	Well Diameter (in)	Total Well Depth (ft bgs)	Blank PVC Sch 80 Casing Interval (ft bgs)	Screened Interval (ft bgs)	Cement Grout Interval (ft bgs)	Bentonite Seal Above Screened Interval (ft bgs)	Bentonite Seal Below Screened Interval (ft bgs)	Transition Sand Interval (ft bgs)	Filter Pack Interval (ft bgs)	Well Monument Type
MW-80A	55-931375	Supplementary	LCR Alluvium	45	8	4	40	+2.5-30	30-40	0-22	22-24	41-45	24-28	28-41	3 ft Tall, 8-in. Diameter Vault
MW-81A	55-931377	Supplementary	LCR Alluvium	55	8	4	45	+2.5-35	35-45	0-29	29-31	45-55	31-33	33-46	3 ft Tall, 8-in. Diameter Vault
MW-82A	55-931378	Supplementary	LCR Alluvium	38	8	4	30	+2.5-20	20-30	0-14	14-16	31-38	16-18	18-31	3 ft Tall, 8-in. Diameter Vault
MW-83A	55-931380	Supplementary	LCR Alluvium	55	8	4	45	+2.5-35	35-45	0-29	29-31	46-55	31-33	33-46	3 ft Tall, 8-in. Diameter Vault
MW-84A	55-931376	Supplementary	LCR Alluvium	50	8	4	45	+2.5-35	35-45	0-29	29-31	46-50	31-33	33-46	3 ft Tall, 8-in. Diameter Vault
MW-85C	55-931406	Supplementary	Coconino Sandstone	130	8	4	125	0-105	105-125	0-88	88-101	129-130	101-103	103-129	Flush Mount

Abbreviations:

+ = feet above ground surface

bgs = below ground surface

ft = feet

ID = Identification

in = inches

Sch = Schedule

PVC = Polyvinyl Chloride

Table 2

Well Development Log

Well ID	Development Dates	Screened Interval (ft-bgs)	Development Methods	Final Turbidity Measurements (NTU)	Approximate Pumping Rate (gpm)	Total Water Removed (gallons)	Notes
MW-80A	8/26/2024	30-40	Surge, Bail, Pump	7.04	0.75	170	--
MW-81A	8/25/2024	35-45	Surge, Bail, Pump	8.61	0.33	65	When water drains below top of screen, fine sands enter the screen
MW-82A	8/25/2024 - 8/26/2024	20-30	Bail, Swab, Bail	NM	<0.25	<10	Fine sands are present in water. Development stopped due to low water in well casing after three attempts
MW-83A	8/24/2024 - 8/25/2024	35-45	Bail, Swab, Pump	4.77	0.25	115	--
MW-84A	8/23/2024- 8/24/2024	35-45	Bail, Swab, Pump	4.09	0.33	64	--
MW-85C	8/22/2023 - 8/23/2024	105-125	Bail, Swab, Pump	6.2	2	800	--

Abbreviations:

ft = feet

bgs = below ground surface

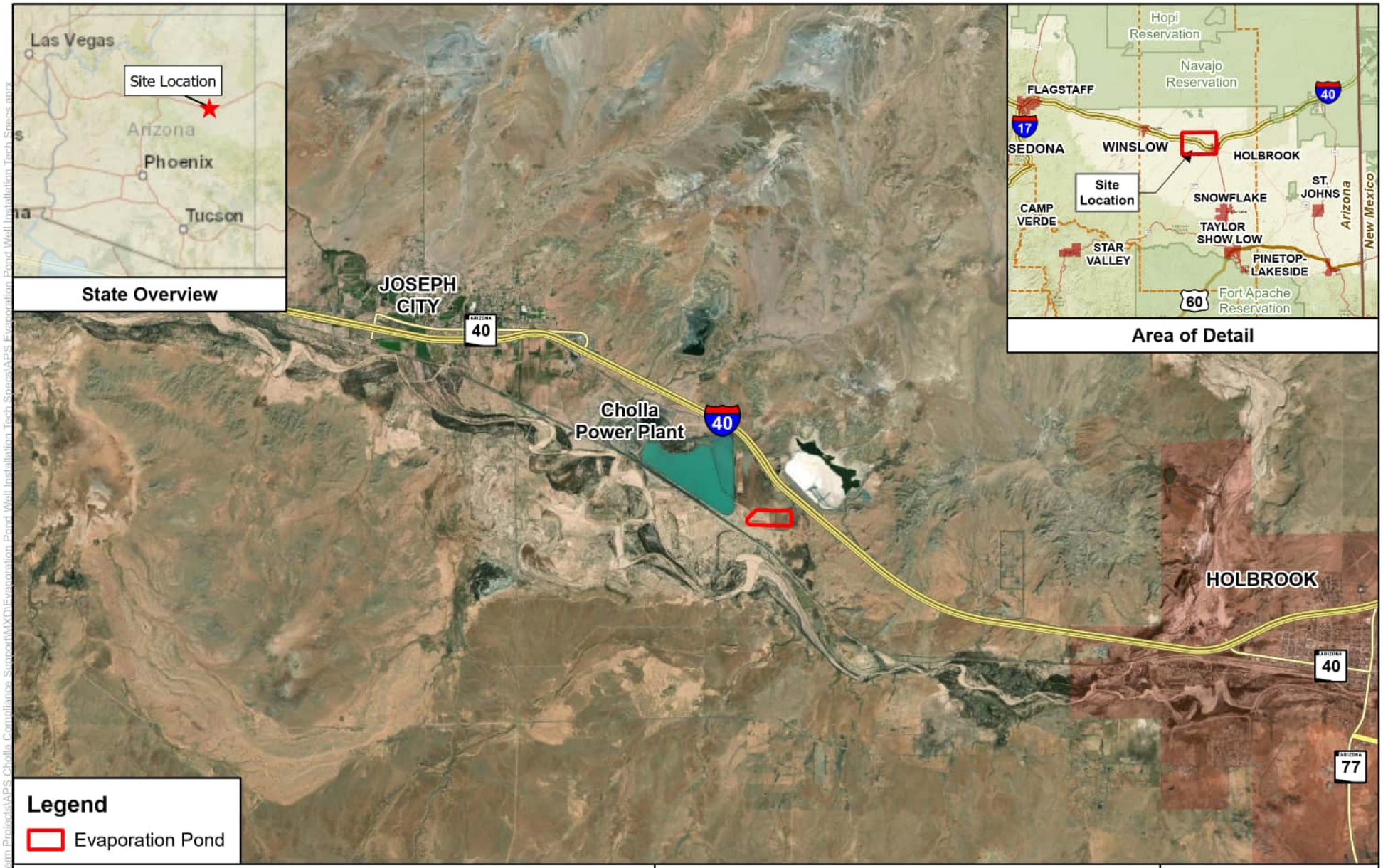
gpm = gallons per minute

NM = not measured due to insufficient water

NTUs = Nephelometric Units

< = less than

FIGURES



Job No.	US0023513.3371
PM:	MBH
Date:	12/12/2024
Scale:	1" = 1.5 miles

The map shown here has been created with all due and reasonable care and is strictly for use with WSP USA Project Number US0023513.3371. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. WSP USA assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

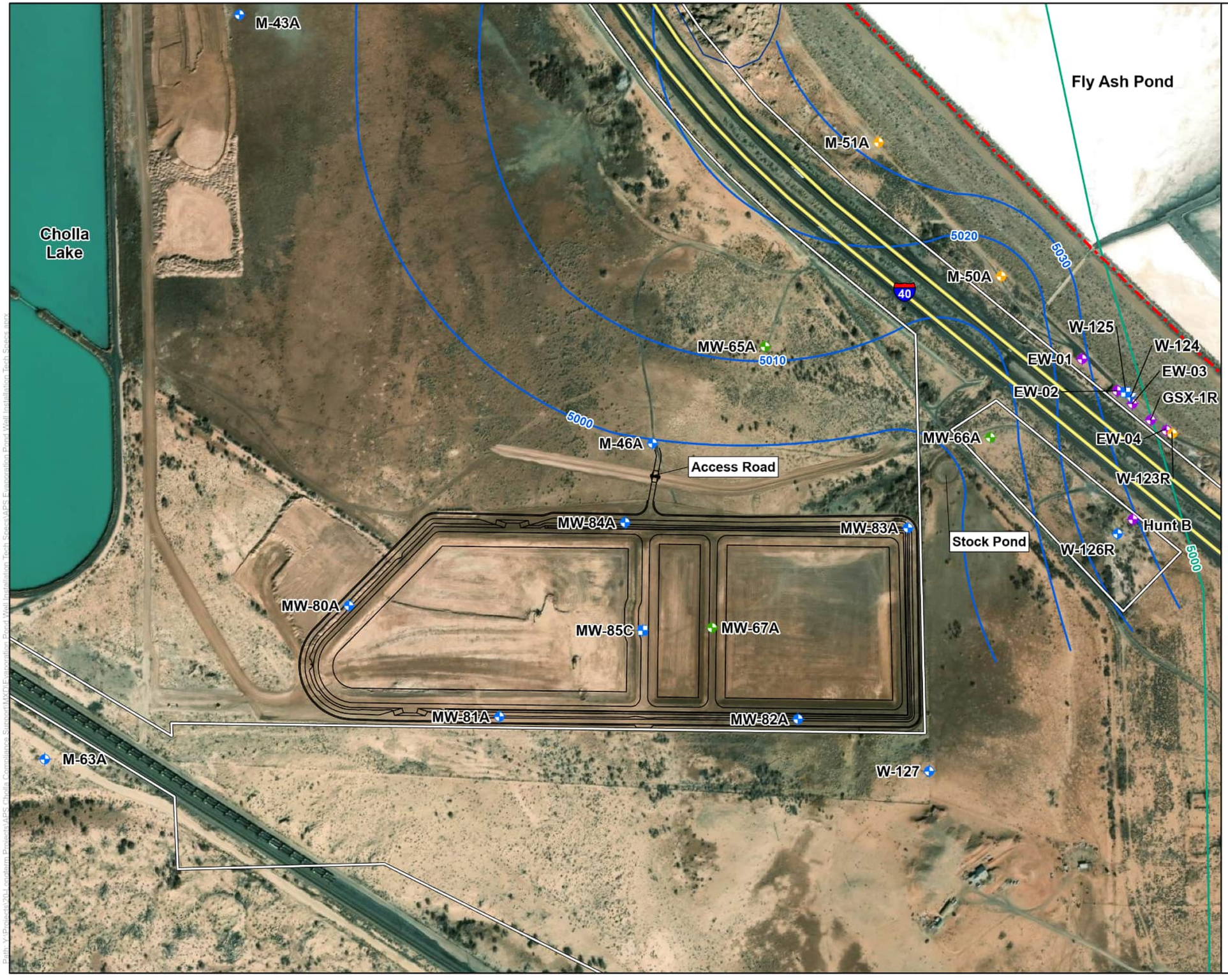
Evaporation Pond Well Installation
APS Cholla Power Plant
Navajo County, Arizona

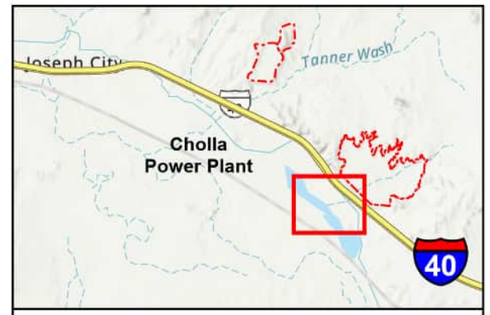
Site Location Map

FIGURE
1

wsp

Path: V:\Projects\20-Longterm Projects\APS Cholla Compliance Support\MXD\Evaporation Pond Well Installation Tech Specs\APS Evaporation Pond Well Installation Tech Specs.aprx





Vicinity Map

Legend

CCR Monitoring Well Location

- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Boundary, Alluvial

Supplementary Site Monitoring Well Location

- Alluvial Monitoring Well
- C-Aquifer Monitoring Well
- Moenkopi Formation (Wupatki Member) Monitoring Well

Other Features

- Extraction Well
- Evaporation Pond
- APS Land Ownership
- Approximate Extent of CCR Unit
- Groundwater Elevation Contour (ft amsl) Alluvial Aquifer (October 2023, dashed where inferred)
- Groundwater Elevation Contour (ft amsl) C-Aquifer (October 2023, dashed where inferred)
- Extent of Alluvial Material

0 200 400 Feet

N

Evaporation Pond Well Installation
APS Cholla Power Plant
Navajo County, Arizona

Figure 2 — **Evaporation Pond Well Installation Site Map**

Job No.	US0023513.3371
PM:	MBH
Date:	12/12/2024
Scale:	1"= 400 feet

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Path: Y:\Projects\2024 confirm Projects\APS Cholla Compliance Support\MXD\Evaporation Pond Well Installation Tech Specs\APS Evaporation Pond Well Installation Tech Specs.aprx

APPENDIX

A

LITHOLOGIC LOGS AND WELL CONSTRUCTION DIAGRAMS

Borehole Log ID

MW-80A

CLIENT	Arizona Public Service Company	**ADWR No.**	55-931375	**Coordinates**	34.5534604236, -110.1642252542
				Coordinate System	Arizona State Plane East Zone, North American Vertical Datum of 1988
				Surface Elevation	5023.33 ft asml
PROJECT LOCATION	Cholla Power Plant, Joseph City, Arizona			**Measuring Point Elevation**	5025.85 ft asml

LITHOLOGY / DESCRIPTION

Depth in feet

0

0 to 5 ft bgs: bulk sample hand auger; Clayey sand/Little Colorado Alluvium; F-Gr, Low to medium plasticity, light brown to brown, very w cemented.

10

5 to 25 ft bgs: Silty sand/Little Colorado Alluvium; F-Gr, no plasticity, light brown, no cementation

20

25 to 27 ft bgs: Clayey sand with gravels/Little Colorado Alluvium; F-Gr, medium PL, subangular gravel, some pebbles.

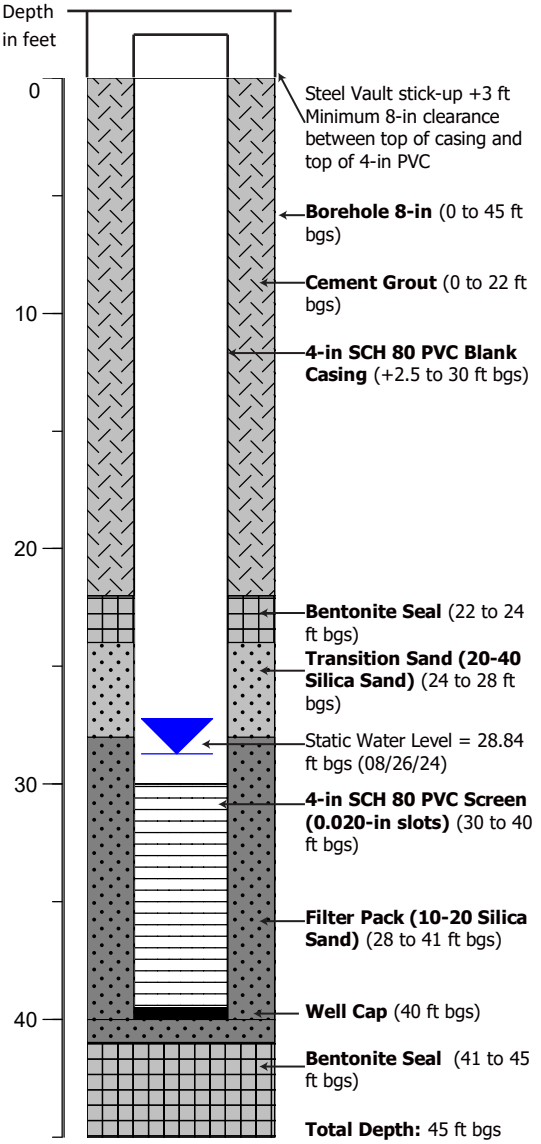
30

27 to 38 ft bgs: Sandy with silt/Little Colorado Alluvium; F to M-Gr, no plasticity.

40

38 to 45 ft bgs: Highly weathered mudstone/Moenkopi - Moqui; F-Gr, m to w indurated, reddish-brown. sl moist.
40 to 41 ft bgs: Sandstone; m decomposed with thin, gray mudstone layers, yellow-green.
41 to 45 ft bgs: Mudstone; sl weathered, m indurated, sl moist.

WELL AS-BUILT DIAGRAM



TOTAL DEPTH	45 ft bgs	DESIGN	BE
DATE STARTED	08-06-2024	CHECK	BH
DATE FINISHED	08-06-2024	REVIEW	RW
LOGGED BY	Joseph Lopez	PROJECT MANAGER	MH
DRILLING CONTRACTOR	YellowJacket Drilling	DATE	9-11-2024
DRILLING METHOD	Rotosonic	PROJECT No.	23513.3371
SCALE	AS SHOWN		

TITLE

BOREHOLE LOG AND AS-BUILT DRAWING

wsp

Notes: Survey performed October 22, 2024 by Martin Land Surveys

Abbreviations: @ = at; ADWR = Arizona Department of Water Resources;F = fine; ft bgs = feet below ground surface;

Abbreviations (continued): ft asml = feet above mean sea level; Gr = grained; in = inch; M = medium; m = moderately; No. = number; sl = slightly; w = weakly

Borehole Log ID

MW-81A

CLIENT	Arizona Public Service Company	**ADWR No.**	55-931377	**Coordinates**	34.5529908784, -110.1634840602
				Coordinate System	Arizona State Plane East Zone, North American Vertical Datum of 1988
				Surface Elevation	5024.52 ft asml
PROJECT LOCATION	Cholla Power Plant, Joseph City, Arizona			**Measuring Point Elevation**	5026.76 ft asml

LITHOLOGY / DESCRIPTION

Depth in feet

0

0 to 2 ft bgs: Fill; well graded gravel with sand and silt

2 to 7 ft bgs: Silty clayey sand/Little Colorado Alluvium; F-Gr, low to medium plasticity, light brown, sl moist.

10

7 to 9 ft bgs: Silty sand with clay/Little Colorado Alluvium; F-Gr, low to no plasticity, light brown, sl moist.

9 to 19 ft bgs: Silty sand/Little Colorado Alluvium; F to M-Gr, no plasticity, light brown to brown, sl moist.

20

19 to 21 ft bgs: Silty clayey sand/Little Colorado Alluvium; F-Gr, high to medium plasticity, brown, sl moist.

21 to 27 ft bgs: Silty sand with gravels/Little Colorado Alluvium; F-Gr sand, F-coarse semi-rounded gravel, sl moist.

30

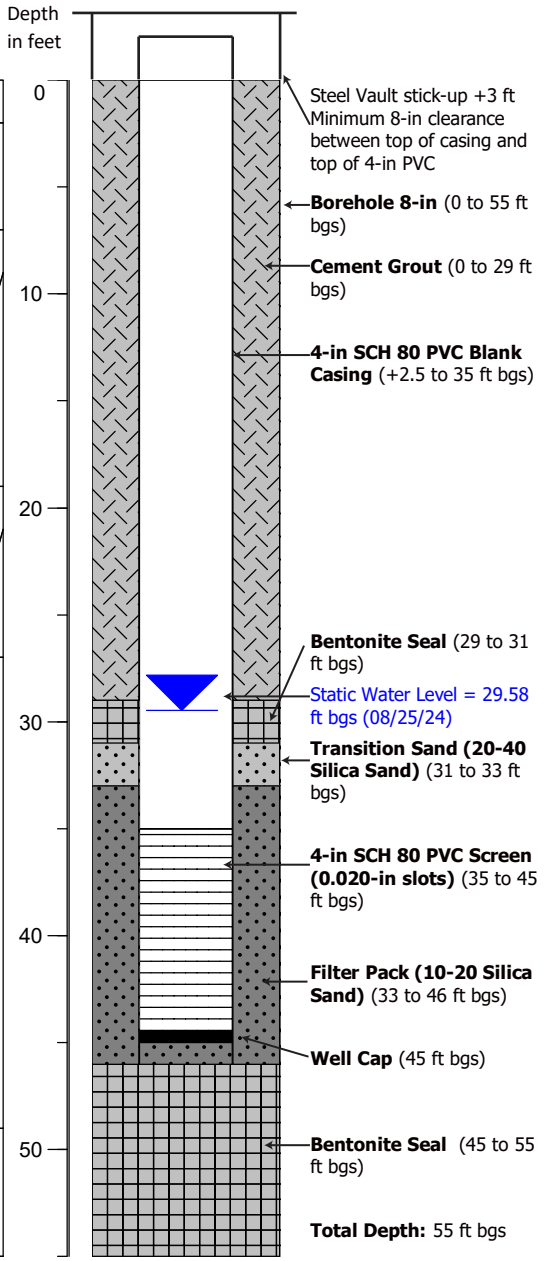
27 to 49 ft bgs: Silty clayey sand/Little Colorado Alluvium; F to M-Gr, low to no plasticity, brown, moist to wet.
31 ft bgs: Clay increases to 20-30%, wet.
35 ft bgs: Clay decreases to 15%, very wet.
39 ft bgs: Clay increases to 15-25%, wet to moist.
41 ft bgs: Clay decreases to 15%, low to no plasticity.
43 ft bgs: Clay increases to 15-20%, high to medium plasticity.
45 ft bgs: Clay decreases to 10-15%, wet to moist.
47 ft bgs: Clay increases to 20-40%, reddish brown, moist to wet.

40

50

49 to 55 ft bgs: Mudstone/Moqui; thin sandy and thin silty sand laminae, highly decomposed, brown to reddish brown. Moist to sl moist.

WELL AS-BUILT DIAGRAM



TOTAL DEPTH	55 ft bgs	DESIGN	BE
DATE STARTED	08-10-2024	CHECK	BH
DATE FINISHED	08-10-2024	REVIEW	RW
LOGGED BY	Joseph Lopez	PROJECT MANAGER	MH
DRILLING CONTRACTOR	YellowJacket Drilling	DATE	9-11-2024
DRILLING METHOD	Rotosonic	PROJECT No.	23513.3371
SCALE	AS SHOWN		

TITLE

BOREHOLE LOG AND AS-BUILT DRAWING

Notes: Survey performed October 22, 2024 by Martin Land Surveys

Abbreviations: @ = at; ADWR = Arizona Department of Water Resources;F = fine; ft bgs = feet below ground surface;

Abbreviations (continued): ft asml = feet above mean sea level; Gr = grained; in = inch; M = medium; m = moderately; No. = number; sl = slightly; w = weakly

Borehole Log ID

MW-82A

CLIENT	Arizona Public Service Company	**ADWR No.**	55-931378	**Coordinates**	34.55295946, -110.1620009782
				Coordinate System	Arizona State Plane East Zone, North American Vertical Datum of 1988
				Surface Elevation	5025.95 ft asml
PROJECT LOCATION	Cholla Power Plant, Joseph City, Arizona			**Measuring Point Elevation**	5027.79 ft asml

LITHOLOGY / DESCRIPTION

Depth in feet

0 to 2 ft bgs: Hand auger fill material; Silty sand, F-G

2 to 15 ft bgs: Silty clayey sand/Little Colorado Alluvium; F-Gr, low to medium plasticity, brown, sl moist.
5 ft bgs: Well cemented, sl moist sands

15 to 21 ft bgs: Clayey sand/Little Colorado Alluvium; F-Gr, well cemented, moist, med-high plasticity

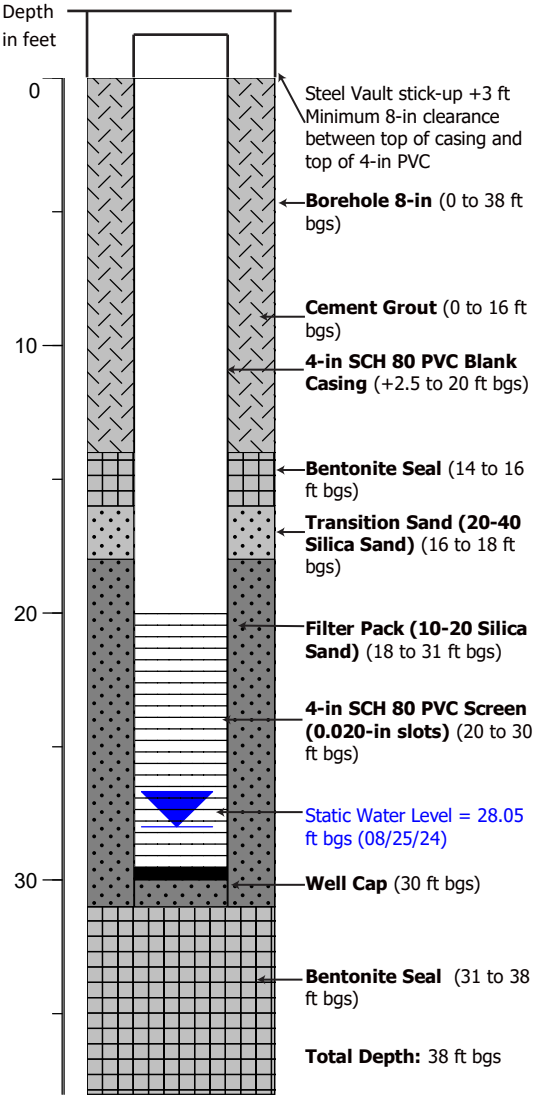
19 ft bgs: m cemented

21 to 24 ft bgs: Silty sand with clay/Little Colorado Alluvium; F-M-Gr, no to low plasticity, brown, sl moist to moist

24 to 33 ft bgs: Silty clayey sand/Little Colorado Alluvium; F-Gr, medium plasticity, brown, sl moist to moist.
25 ft bgs: wet, decrease in fines. F-M Gr sand, poorly graded, reddish brown, low to med plasticity.

33 to 38 ft bgs: Mudstone/Moqui; Alternating beds of mudstone, siltstone, sandstones with shale. mo to highly decomposed reddish brown mudstones with thin yellow, yellow-green sandstone, moist conditions to a depth of 35 ft bgs.

WELL AS-BUILT DIAGRAM



TOTAL DEPTH	38 ft bgs	DESIGN	BE
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DATE FINISHED	08-09-2024	REVIEW	RW
LOGGED BY	Joseph Lopez	PROJECT MANAGER	MH
DRILLING CONTRACTOR	Yellow Jacket Drilling	DATE	9-11-2024
DRILLING METHOD	Rotosonic	PROJECT No.	23513.3371
SCALE	AS SHOWN		

TITLE

BOREHOLE LOG AND AS-BUILT DRAWING

Notes: Survey performed October 22, 2024 by Martin Land Surveys

Abbreviations: @ = at; ADWR = Arizona Department of Water Resources;F = fine; ft bgs = feet below ground surface;

Abbreviations (continued): ft asml = feet above mean sea level; Gr = grained; in = inch; M = medium; m = moderately; No. = number; sl = slightly; w = weakly

Borehole Log ID

MW-83A

CLIENT	Arizona Public Service Company	**ADWR No.**	55-931380	**Coordinates**	34.5537393964 , -110.1614338914
				Coordinate System	Arizona State Plane East Zone, North American Vertical Datum of 1988
				Surface Elevation	5028.19 ft asml
PROJECT LOCATION	Cholla Power Plant, Joseph City, Arizona			**Measuring Point Elevation**	5030.42 ft asml

LITHOLOGY / DESCRIPTION

Depth in feet

0

0 to 2.5 ft bgs: Hand auger fill material; Silty, clayey, sand, F-Gr sand, brown, low-M plasticity

2 to 15 ft bgs: Silty clayey sand/Little Colorado Alluvium; F-Gr, low to M lasticity, brown, sl moist.
5 ft bgs: increase clay, brown to dark brown, M to high plasticity

10

15 to 39 ft bgs: Clayey sand/Little Colorado Alluvium; subangular, F-Gr, lenses of increased sand, moist.

20

25 ft bgs: Increase clay 25%, M-high plasticity, moist.

30

40

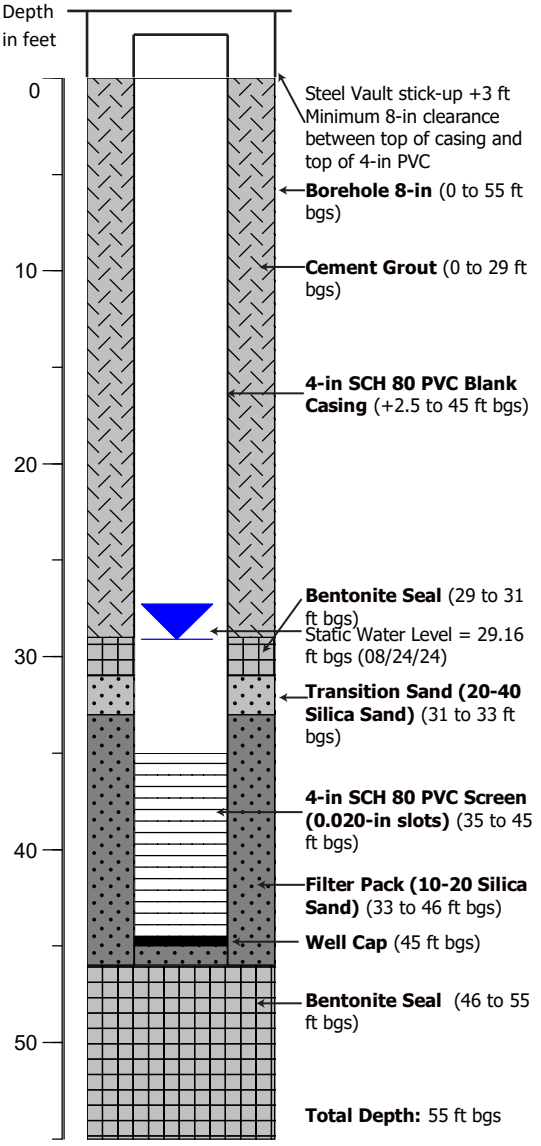
39 to 49 ft bgs: Clayey sand/Little Colorado Alluvium; F-Gr, high plasticity, brown to reddish brown, moist to wet

45 ft bgs: Subrounded F-coarse gravels, brown, M to high plasticity

50

49 to 55 ft bgs: Mudstone and alternating layers of sandstone/Moenkopi-Moqui; F-M Gr, light brown to yellow sandstone, F-Gr reddish brown mudstone

WELL AS-BUILT DIAGRAM



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DATE FINISHED	08-08-2024	REVIEW	RW
LOGGED BY	Joseph Lopez	PROJECT MANAGER	MH
DRILLING CONTRACTOR	Yellow Jacket Drilling	DATE	9-11-2024
DRILLING METHOD	Rotosonic	PROJECT No.	23513.3371
SCALE	AS SHOWN		

TITLE

BOREHOLE LOG AND AS-BUILT DRAWING

wsp

Notes: Survey performed October 22, 2024 by Martin Land Surveys

Abbreviations: @ = at; ADWR = Arizona Department of Water Resources;F = fine; ft bgs = feet below ground surface;

Abbreviations (continued): ft asml = feet above mean sea level; Gr = grained; in = inch; M = medium; m = moderately; No. = number; sl = slightly; w = weakly

Borehole Log ID

MW-84A

CLIENT	Arizona Public Service Company	**ADWR No.**	55-931376	**Coordinates**	34.553781339, -10.1628455296
				Coordinate System	Arizona State Plane East Zone, North American Vertical Datum of 1988
				Surface Elevation	5025.13 ft asml
PROJECT LOCATION	Cholla Power Plant, Joseph City, Arizona			**Measuring Point Elevation**	5027.38 ft asml

LITHOLOGY / DESCRIPTION

Depth in feet

0 — **0 to 2 ft bgs:** Hand auger fill material

2 to 25 ft bgs: Silty clayey sand/Little Colorado Alluvium; F-Gr, high plasticity, dark brown, very weakly cemented, sl moist.
15 ft bgs: increase clay, reddish brown, weakly cemented.
22 ft bgs: decrease clay, increase sand, F-Gr, light brown

10

20

25 to 35 ft bgs: Clay/Little Colorado Alluvium; Dark brown to reddish brown, sl. moist to moist, high plasticity

30

35 to 37 ft bgs: Poorly graded sand with silt and clay/Little Colorado Alluvium; F-M-Gr, subangular, low plasticity, wet.

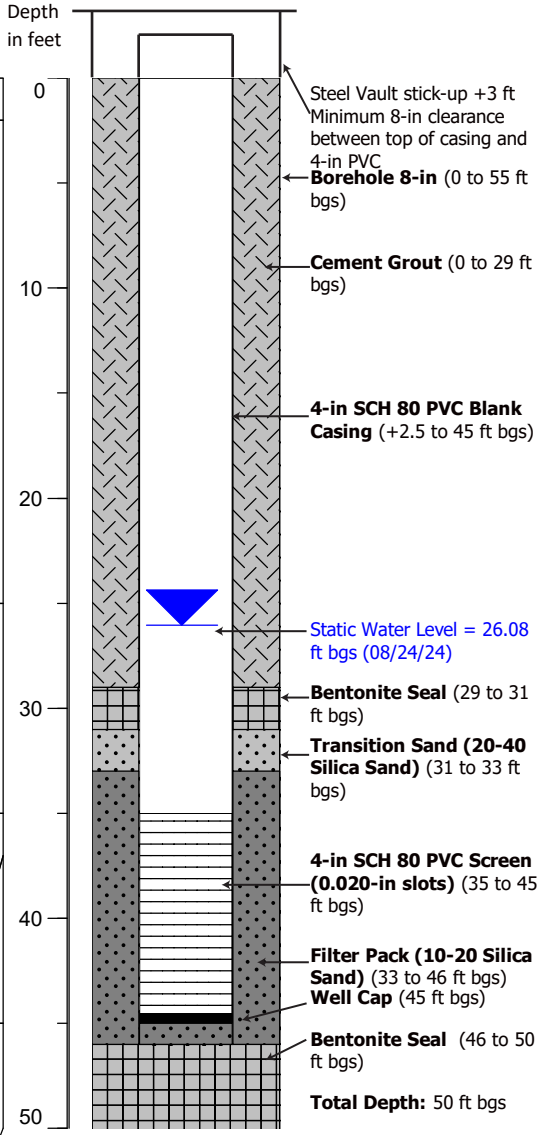
40

37 to 45 ft bgs: Clayey sand/Little Colorado Alluvium; F-Gr, medium plasticity, moist to wet.

45 to 50 ft bgs: Mudstone and alternating layers of shales/Moenkopi-Moqui; Thin alternating layers of F-Gr, gray-green shale with F-M-Gr, reddish brown mudstones.
49 to 49.5 ft bgs: Layer of gypsum evaporites.

50

WELL AS-BUILT DIAGRAM



TOTAL DEPTH	50 ft bgs	DESIGN	BE
DATE STARTED	08-07-2024	CHECK	BH
DATE FINISHED	08-08-2024	REVIEW	RW
LOGGED BY	Joseph Lopez	PROJECT MANAGER	MH
DRILLING CONTRACTOR	Yellow Jacket Drilling	DATE	9-11-2024
DRILLING METHOD	Rotosonic	PROJECT No.	23513.3371
SCALE	AS SHOWN		

TITLE

BOREHOLE LOG AND AS-BUILT DRAWING

Notes: Survey performed October 22, 2024 by Martin Land Surveys

Abbreviations: @ = at; ADWR = Arizona Department of Water Resources;F = fine; ft bgs = feet below ground surface;

Abbreviations (continued): ft asml = feet above mean sea level; Gr = grained; in = inch; M = medium; m = moderately; No. = number; sl = slightly; w = weakly

Borehole Log ID

MW-85C

				Coordinates	34.553340989, -110.1627706324
				Coordinate System	Arizona State Plane East Zone, North American Vertical Datum of 1988
CLIENT	Arizona Public Service Company	ADWR No.	55-931406	Surface Elevation	5027.70 ft asml
PROJECT LOCATION	Cholla Power Plant, Joseph City, Arizona			Measuring Point Elevation	5027.70 ft asml

LITHOLOGY	DESCRIPTION	WELL AS-BUILT DIAGRAM

Depth in feet

0 to 5 ft bgs: Fill; Poorly graded sand with silt, F-M Gr semiangular sands.

5 to 19 ft bgs: Clayey sand/Little Colorado Alluvium; F-Gr, some cementation, CaCO3 fillaments.
Note: 11 ft bgs: Increased clay, dark brown, w cemented, small roots present, M plasticity.
Note: 17 ft bgs: Increased clay, w to mo cemented, large roots present, high plasticity.

19 to 23 ft bgs: Silty sand with clay/Little Colorado Alluvium; F-Gr, light brown, sl moist, low to no plasticity.

23 to 25 ft bgs: Silty clayey sand/Little Colorado Alluvium; F-Gr, brown, sl moist.

25 to 27 ft bgs: Silty sand/Little Colorado Alluvium; F-M-Gr, brown, no plasticity.

27 to 33 ft bgs: Silty clayey sand/Little Colorado Alluvium; F-Gr, M plasticity, reddish brown with some yellow to yellow-green-grey staining.

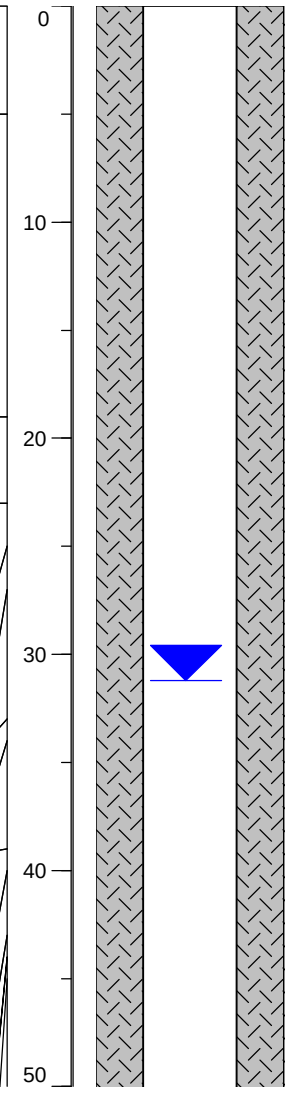
33 to 34 ft bgs: Silty sand with clay; F-Gr sand, low plasticity, brown.

34 to 39 ft bgs: Silty clayey sand/Little Colorado Alluvium; F-Gr sand, M plasticity, brown, moist to wet.

39 to 40 ft bgs: Silty sand with clay/Little Colorado Alluvium; F--M-Gr semiangular sands, some clay, considerable yellow staining.

40 to 43 ft bgs: Clayey sand/Little Colorado Alluvium; F-Gr sand, M plasticity, brown.

43 to 44 ft bgs: Silty sand with clay/Little Colorado Alluvium; F-M Gr subangular sands, Some clay, light brown to yellow brown, no to low plasticity



TOTAL DEPTH	130 ft bgs	DESIGN	BE
DATE STARTED	08-11-2024	CHECK	BH
DATE FINISHED	08-13-2024	REVIEW	RW
LOGGED BY	Joseph Lopez	PROJECT MANAGER	MH
DRILLING CONTRACTOR	Yellow Jacket Drilling	DATE	9-11-2024
DRILLING METHOD	Rotosonic	PROJECT No.	23513.3371
SCALE	AS SHOWN		

TITLE

BOREHOLE LOG AND AS-BUILT DRAWING

wsp

Notes: Survey performed October 22, 2024 by Martin Land Surveys

Abbreviations: @ = at; ADWR = Arizona Department of Water Resources;F = fine; ft bgs = feet below ground surface;

Abbreviations (continued): ft asml = feet above mean sea level; Gr = grained; in = inch; M = medium; mo = moderately; No. = number; sl = slightly; w = weakly

Borehole Log ID

MW-85C

				Coordinates	34.553340989, -110.1627706324
				Coordinate System	Arizona State Plane East Zone, North American Vertical Datum of 1988
CLIENT	Arizona Public Service Company	ADWR No.	55-931406	Surface Elevation	5027.70 ft asml
PROJECT LOCATION	Cholla Power Plant, Joseph City, Arizona			Measuring Point Elevation	5027.70 ft asml

LITHOLOGY / DESCRIPTION

Depth in feet

44 to 45 ft bgs: Clay with sandy silty/Little Colorado Alluvium; mottled dark brown with some black staining, very dense, M to high plasticity, moist.

45 to 47 ft bgs: Sandy clay with gravel/Little Colorado Alluvium; subrounded to rounded coarse gravel, mottled, very dense, high plasticity, moist to sl. moist

47 to 60 ft bgs: Alternating siltstones, silty sandstones, sandstones with silt, sandy silty mudstones or shales/Moenkopi - Moqui; sl moist.
Note: 48 ft bgs: Hard drilling encoutered, rig chatter, driller began running water to core through hard layer.
Note: 48 to 49 ft bgs: Sandy siltstone, Very F-Gr, with F-M lenticular beds of sandstone, F sands throughout, mo hard, mo weathered, brown to reddish brown.

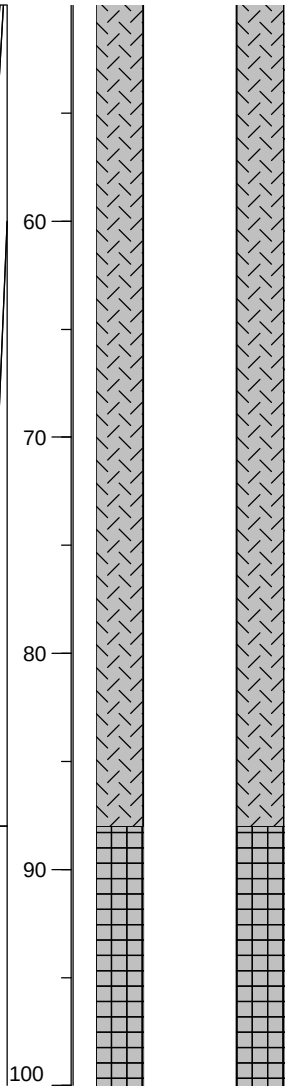
Note: 49 to 51 ft bgs: Sandstone with silt, Very F-Gr, poorly sorted, variegated color of predominantly reddish brown with reddish orange mottle, mohard to hard, mo weathered.
Note: 51 to 55 ft bgs: Sandy silty mudstone or shale, soft to mo hard, sandy, mostly F-Gr sands, thin black laminae, micaceous, dark brown to reddish brown, mo weathered, sl moist to dry.

60 to 88 ft bgs: Sandstone/Moenkopi - Wupatki; siltstones with sand or sandy siltstones.
Note: 65 to 73 ft bgs: Silty sandstone, mo hard, Very F-Gr sand, mo brown to reddish brown with some yellow fragments.
Note: 75 to 85 ft bgs: Sandy siltstone to sandy mudstone, Very F-F Gr sands, soft to mo hard, pale pink to red sandstone layers.
Note: 85 to 88 ft bgs: Shale, F-Gr, micaceous, pale grey to green grey, soft to mo hard, silty to sandy.

88 to 130 ft bgs: Sandstone/Coconino Sandstone; F-C Gr sands, very well graded, hard, yellowish grey to pale yellow. Gradational contact with overlying Wupatki.

Note: 88 to 95 ft bgs: Gradational contact between Wupatki and Coconino.
Note: 105 to 120 ft bgs: Sandstone becomes F Gr, color lightens to pale yellow to light brown/tan.
Note :120 to 130 ft bgs: Sandstone is light tan to light brown to white, soft to M hardness.

WELL AS-BUILT DIAGRAM



TOTAL DEPTH	130 ft bgs	DESIGN	BE
DATE STARTED	08-11-2024	CHECK	BH
DATE FINISHED	08-13-2024	REVIEW	RW
LOGGED BY	Joseph Lopez	PROJECT MANAGER	MH
DRILLING CONTRACTOR	Yellow Jacket Drilling	DATE	9-11-2024
DRILLING METHOD	Rotosonic	PROJECT No.	23513.3371
SCALE	AS SHOWN		

TITLE

BOREHOLE LOG AND AS-BUILT DRAWING

wsp

Notes: Survey performed October 22, 2024 by Martin Land Surveys

Abbreviations: @ = at; ADWR = Arizona Department of Water Resources;F = fine; ft bgs = feet below ground surface;

Abbreviations (continued): ft asml = feet above mean sea level; Gr = grained; in = inch; M = medium; mo = moderately; No. = number; sl = slightly; w = weakly

Borehole Log ID

MW-85C

				Coordinates	34.553340989, -110.1627706324
				Coordinate System	Arizona State Plane East Zone, North American Vertical Datum of 1988
CLIENT	Arizona Public Service Company	ADWR No.	55-931406	Surface Elevation	5027.70 ft asml
PROJECT LOCATION	Cholla Power Plant, Joseph City, Arizona			Measuring Point Elevation	5027.70 ft asml

LITHOLOGY	DESCRIPTION	WELL AS-BUILT DIAGRAM

Depth in feet

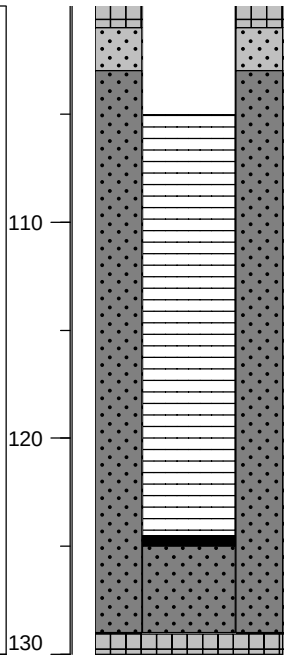
110

120

130

88 to 130 ft bgs: Sandstone/Coconino Sandstone; F-C Gr sands, very well graded, hard, yellowish grey to pale yellow. Gradational contact with overlying Wupatki.

Note: 88 to 95 ft bgs: Gradational contact between Wupatki and Coconino.
Note: 105 to 120 ft bgs: Sandstone becomes F Gr, color lightens to pale yellow to light brown/tan.
Note :120 to 130 ft bgs: Sandstone is light tan to light brown to white, soft to M hardness.



TOTAL DEPTH	130 ft bgs	DESIGN	BE	TITLE
DATE STARTED	08-11-2024	CHECK	BH	BOREHOLE LOG AND AS-BUILT DRAWING
DATE FINISHED	08-13-2024	REVIEW	RW	
LOGGED BY	Joseph Lopez	PROJECT MANAGER	MH	
DRILLING CONTRACTOR	Yellow Jacket Drilling	DATE	9-11-2024	wsp
DRILLING METHOD	Rotosonic	PROJECT No.	23513.3371	
SCALE	AS SHOWN			

Notes: Survey performed October 22, 2024 by Martin Land Surveys

Abbreviations: @ = at; ADWR = Arizona Department of Water Resources;F = fine; ft bgs = feet below ground surface;

Abbreviations (continued): ft asml = feet above mean sea level; Gr = grained; in = inch; M = medium; mo = moderately; No. = number; sl = slightly; w = weakly

APPENDIX

B

PHOTOGRAPHIC LOG

MW - 80A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 1



Date/Time:	08/06/2024 09:36		
Direction:	North	Latitude:	34.926322
GPS Accuracy (m):	3.0	Longitude:	-110.27842
Description:	Depth: 0' to 5' bulk sample SC: Clayey Sand		

Photo 2



Date/Time:	08/06/2024 11:42		
Direction:	North	Latitude:	34.926339
GPS Accuracy (m):	4.0	Longitude:	-110.278516
Description:	Depth: 5' to 10' SC: Clayey Sand		

MW - 80A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 3



Date/Time:	08/06/2024 11:48		
Direction:	North	Latitude:	34.92634
GPS Accuracy (m):	8.0	Longitude:	-110.278518
Description:	Depth: 10' to 15' Transition to Silty Sand at ~ 11'		

Photo 4



Date/Time:	08/06/2024 11:53		
Direction:	North	Latitude:	34.92627
GPS Accuracy (m):	6.0	Longitude:	-110.278457
Description:	Depth: 15' to 25' Transition from Silty Sand to Clayey Sand w gravel at ~ 24'		

MW - 80A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 5



Date/Time:	08/06/2024 12:24		
Direction:	North	Latitude:	34.926324
GPS Accuracy (m):	0.75	Longitude:	-110.278485
Description:	Depth: 25' to 30' Sand with silt sp-sm. Water at ~ 27'		

Photo 6



Date/Time:	08/06/2024 12:28		
Direction:	North	Latitude:	34.926342
GPS Accuracy (m):	6.0	Longitude:	-110.278527
Description:	Depth: 30' to 35' Sand with silt sp-sm		

MW - 80A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 7



Date/Time:	08/06/2024 12:56		
Direction:	North	Latitude:	34.926287
GPS Accuracy (m):	8.0	Longitude:	-110.278472
Description:	Depth: 35' to 39' Sand with silt		

Photo 8



Date/Time:	08/06/2024 12:58		
Direction:	North	Latitude:	34.926304
GPS Accuracy (m):	1.5	Longitude:	-110.278492
Description:	Depth: 39' to 45' TD = 45', Moqui contact at ~39 ' and Formation		

MW - 80A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Technician Signature:	Technician Name:		QA/QC'd by:
	Joe Lopez, Nicolas Gernand		LK
	Date & Time:	Initials:	QA/QC Date:
	08/06/2024 21:30	JL	10/16/2024

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 1



Date/Time:	08/10/2024 12:09		
Direction:		Latitude:	34.924965
GPS Accuracy (m):	8.0	Longitude:	-110.276307
Description:	5.0 to 7.0 ft		

Photo 2



Date/Time:	08/10/2024 12:09		
Direction:		Latitude:	34.92494
GPS Accuracy (m):	12.0	Longitude:	-110.276383
Description:	7.0 to 9.0 ft		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 3



Date/Time:	08/10/2024 12:10		
Direction:		Latitude:	34.924949
GPS Accuracy (m):	4.0	Longitude:	-110.276289
Description:	9.0 to 11.0		

Photo 4



Date/Time:	08/10/2024 12:11		
Direction:		Latitude:	34.924905
GPS Accuracy (m):	4.0	Longitude:	-110.276307
Description:	11.0 to 13.0		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 5



Date/Time:	08/10/2024 12:14		
Direction:		Latitude:	34.924929
GPS Accuracy (m):	4.0	Longitude:	-110.2763
Description:	13.0 to 15.0		

Photo 6



Date/Time:	08/10/2024 12:14		
Direction:		Latitude:	34.924941
GPS Accuracy (m):	4.0	Longitude:	-110.276296
Description:	15.0 to 17.0		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 7



Date/Time:	08/10/2024 12:15		
Direction:		Latitude:	34.924952
GPS Accuracy (m):	4.0	Longitude:	-110.276288
Description:	17.0 to 19.0		

Photo 8



Date/Time:	08/10/2024 12:16		
Direction:		Latitude:	34.924947
GPS Accuracy (m):	4.0	Longitude:	-110.276292
Description:	19.0 to 21.0		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 9



Date/Time:	08/10/2024 12:17		
Direction:		Latitude:	34.924941
GPS Accuracy (m):	4.0	Longitude:	-110.276282
Description:	21.0 to 23.0 ft		

Photo 10



Date/Time:	08/10/2024 12:18		
Direction:		Latitude:	34.924939
GPS Accuracy (m):	4.0	Longitude:	-110.276293
Description:	23.0 to 25.0 ft		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 11



Date/Time:	08/10/2024 12:23		
Direction:		Latitude:	34.924959
GPS Accuracy (m):	4.0	Longitude:	-110.276281
Description:	25.0 to 27.0 ft		

Photo 12



Date/Time:	08/10/2024 12:23		
Direction:		Latitude:	34.924955
GPS Accuracy (m):	4.0	Longitude:	-110.276266
Description:	27.0 to 29.0		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 13



Date/Time:	08/10/2024 12:24		
Direction:		Latitude:	34.924948
GPS Accuracy (m):	4.0	Longitude:	-110.276279
Description:	29.0 to 31.0 ft		

Photo 14



Date/Time:	08/10/2024 12:25		
Direction:		Latitude:	34.924942
GPS Accuracy (m):	4.0	Longitude:	-110.276274
Description:	31.0 to 33.0 ft		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 15



Date/Time:	08/10/2024 12:26		
Direction:		Latitude:	34.924921
GPS Accuracy (m):	4.0	Longitude:	-110.276285
Description:	33.0 to 35.0		

Photo 16



Date/Time:	08/10/2024 12:43		
Direction:		Latitude:	34.924977
GPS Accuracy (m):	4.0	Longitude:	-110.276305
Description:	35.0 to 37.0		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 17



Date/Time:	08/10/2024 12:44		
Direction:		Latitude:	34.924974
GPS Accuracy (m):	4.0	Longitude:	-110.276288
Description:	37.0 to 39.0 ft		

Photo 18



Date/Time:	08/10/2024 12:45		
Direction:		Latitude:	34.924975
GPS Accuracy (m):	4.0	Longitude:	-110.276296
Description:	39.0 to 41.0 ft		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 19



Date/Time:	08/10/2024 12:46		
Direction:		Latitude:	34.924959
GPS Accuracy (m):	4.0	Longitude:	-110.276292
Description:	41.0 to 43.0 ft		

Photo 20



Date/Time:	08/10/2024 12:47		
Direction:		Latitude:	34.924897
GPS Accuracy (m):	12.0	Longitude:	-110.276261
Description:	43.0 to 45.0 ft		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 21



Date/Time:	08/10/2024 13:02		
Direction:		Latitude:	34.924937
GPS Accuracy (m):	4.0	Longitude:	-110.276271
Description:	45.0 to 47.0 ft		

Photo 22

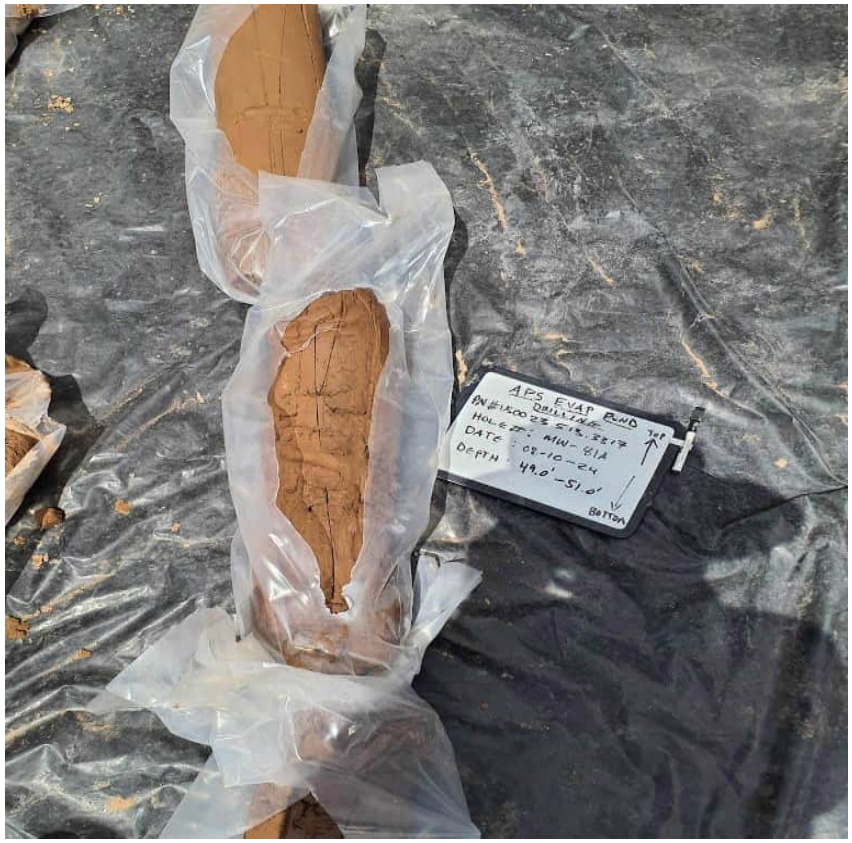


Date/Time:	08/10/2024 13:03		
Direction:		Latitude:	34.92494
GPS Accuracy (m):	4.0	Longitude:	-110.276287
Description:	47.0 to 49.0 ft		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 23



Date/Time:	08/10/2024 13:04		
Direction:		Latitude:	34.924941
GPS Accuracy (m):	4.0	Longitude:	-110.276287
Description:	Moqui 49.0 to 51.0 ft		

Photo 24



Date/Time:	08/10/2024 13:05		
Direction:		Latitude:	34.924939
GPS Accuracy (m):	4.0	Longitude:	-110.276291
Description:	51.0 to 53.0 ft		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 25



Date/Time:	08/10/2024 13:07		
Direction:		Latitude:	34.924941
GPS Accuracy (m):	4.0	Longitude:	-110.27629
Description:	53.0 to 55.0 ft TD		

Photo 26



Date/Time:	08/10/2024 13:09		
Direction:		Latitude:	34.924916
GPS Accuracy (m):	4.0	Longitude:	-110.276303
Description:	All core 5.0 to 55.0 ft		

MW-81A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Technician Signature:	Technician Name:		QA/QC'd by:
	Joe Lopez		LK
	Date & Time:	Initials:	QA/QC Date:
	08/11/2024 06:29	JL	10/16/2024

MW-82A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 1



Date/Time:	08/09/2024 13:24		
Direction:		Latitude:	34.924917
GPS Accuracy (m):	4.0	Longitude:	-110.2722
Description:	5.0 to 7.0 ft		

Photo 2



Date/Time:	08/09/2024 13:26		
Direction:		Latitude:	34.924853
GPS Accuracy (m):	6.0	Longitude:	-110.272193
Description:	7.0 to 9.0 ft		

MW-82A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 3



Date/Time:	08/09/2024 13:26		
Direction:		Latitude:	34.924854
GPS Accuracy (m):	8.0	Longitude:	-110.272006
Description:	9.0 to 11.0 ft		

Photo 4



Date/Time:	08/09/2024 13:27		
Direction:		Latitude:	34.924815
GPS Accuracy (m):	4.0	Longitude:	-110.272175
Description:	11.0 to 13.0 ft		

MW-82A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 5



Date/Time:	08/09/2024 13:28		
Direction:		Latitude:	34.924825
GPS Accuracy (m):	4.0	Longitude:	-110.272187
Description:	14.p to 15.0 ft		

Photo 6

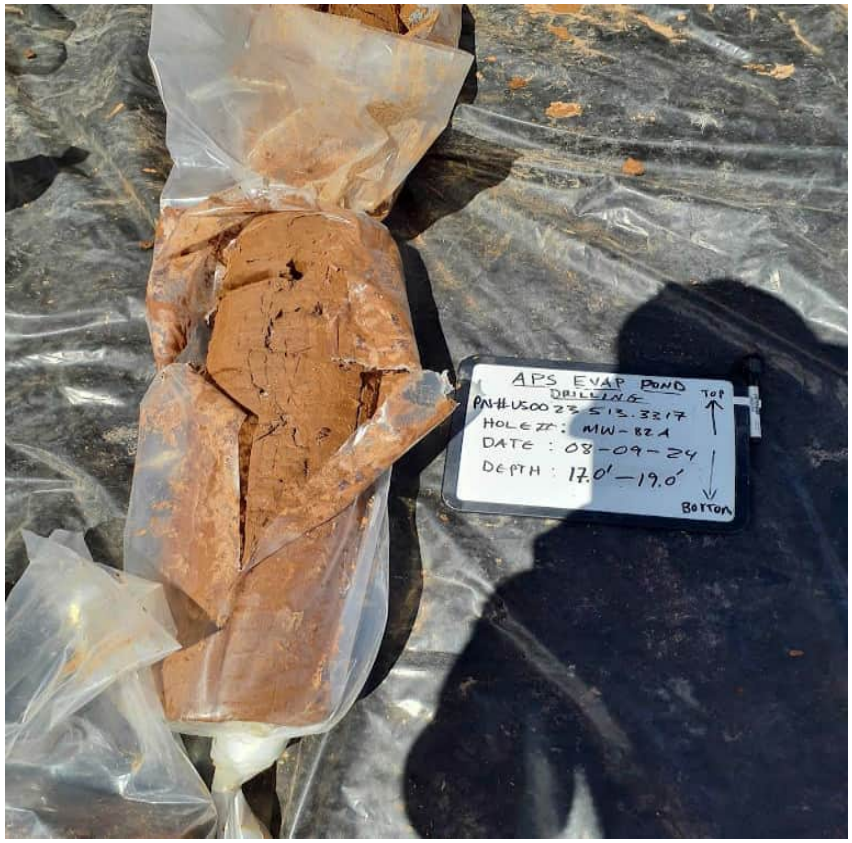


Date/Time:	08/09/2024 13:29		
Direction:		Latitude:	34.92488
GPS Accuracy (m):	4.0	Longitude:	-110.272162
Description:	15.0 to 17.0 ft driller added water		

MW-82A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 7



Date/Time:	08/09/2024 13:38		
Direction:		Latitude:	34.924827
GPS Accuracy (m):	4.0	Longitude:	-110.272162
Description:	17.0 to 19.0 ft		

Photo 8

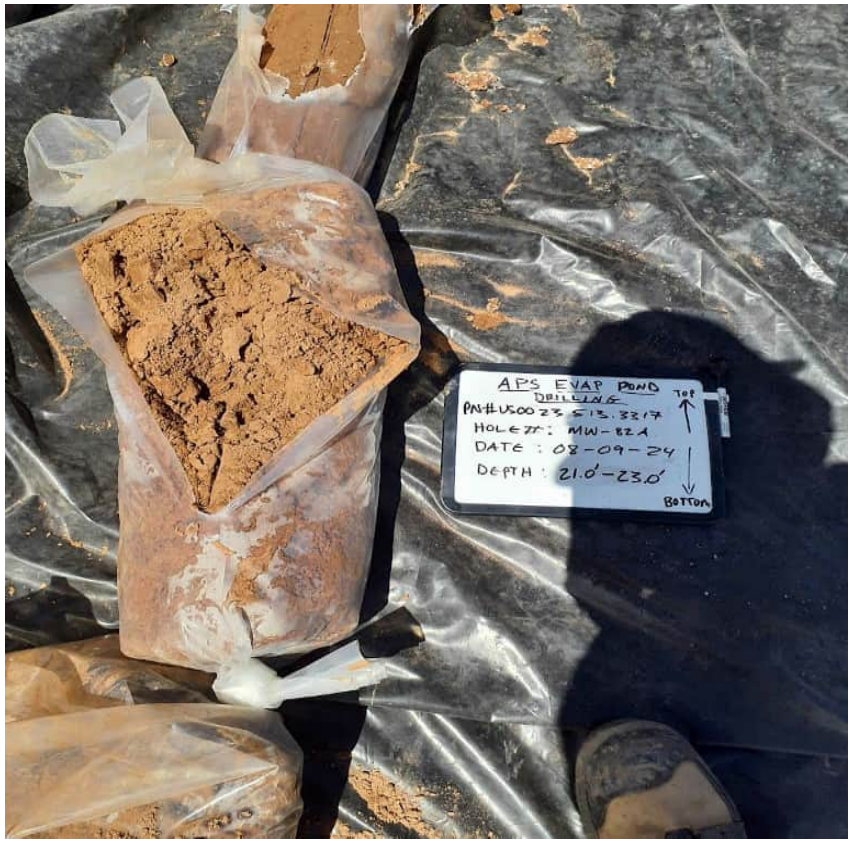


Date/Time:	08/09/2024 13:39		
Direction:		Latitude:	34.924831
GPS Accuracy (m):	4.0	Longitude:	-110.272188
Description:	19.0 to 21.0 ft		

MW-82A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 9



Date/Time:	08/09/2024 13:40		
Direction:		Latitude:	34.924833
GPS Accuracy (m):	4.0	Longitude:	-110.27219
Description:	21.0 to 23.0 ft		

Photo 10



Date/Time:	08/09/2024 13:41		
Direction:		Latitude:	34.924816
GPS Accuracy (m):	4.0	Longitude:	-110.272191
Description:	23.0 to 25.0 ft		

MW-82A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 11



Date/Time:	08/09/2024 14:01		
Direction:		Latitude:	34.924881
GPS Accuracy (m):	8.0	Longitude:	-110.27214
Description:	25.0 to 27.0 ft Wet		

Photo 12



Date/Time:	08/09/2024 14:02		
Direction:		Latitude:	34.924842
GPS Accuracy (m):	4.0	Longitude:	-110.272162
Description:	27.0 to 29.0 ft		

MW-82A Photo Log

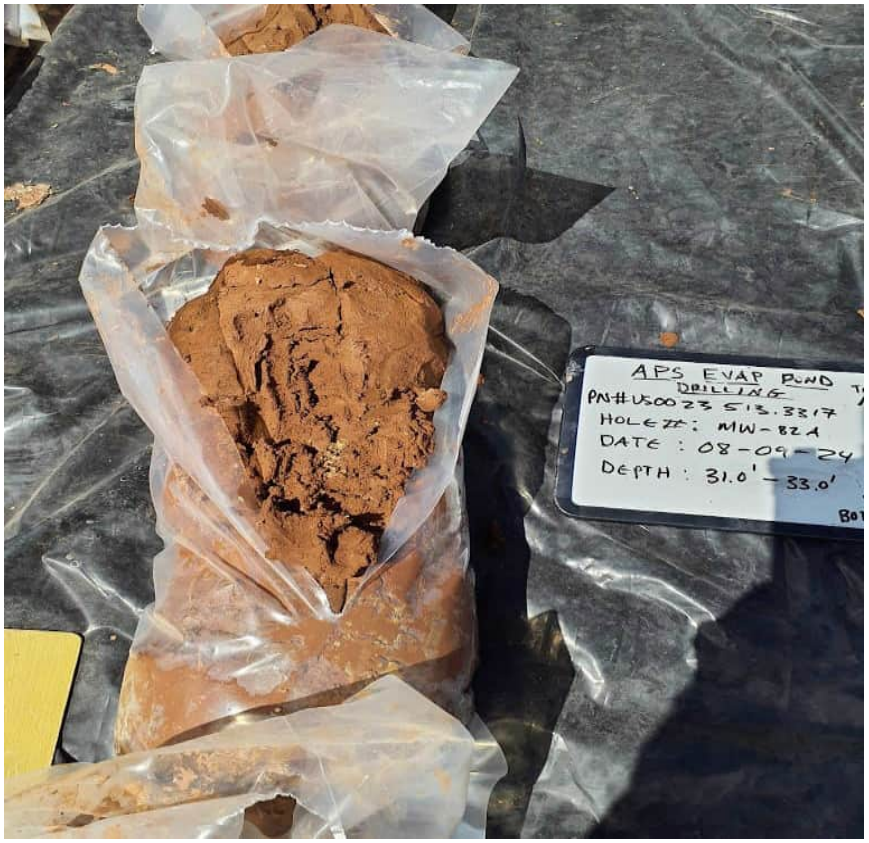
Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 13



Date/Time:	08/09/2024 14:03		
Direction:		Latitude:	34.924852
GPS Accuracy (m):	6.0	Longitude:	-110.272115
Description:	29.0 to 31.0 ft		

Photo 14



Date/Time:	08/09/2024 14:04		
Direction:		Latitude:	34.924765
GPS Accuracy (m):	12.0	Longitude:	-110.272106
Description:	31.0 to 33.0 ft		

MW-82A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Photo 15



Date/Time:	08/09/2024 14:05		
Direction:		Latitude:	34.92486
GPS Accuracy (m):	4.0	Longitude:	-110.272113
Description:	33.0 to 35.0 Moqui		

Photo 16



Date/Time:	08/09/2024 14:31		
Direction:		Latitude:	34.92485
GPS Accuracy (m):	4.0	Longitude:	-110.272174
Description:	35.0 to 38.0 ft TD		

MW-82A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling			Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel:	Joe Lopez	Photo Log Series:	1 of 1

Photo 17



Date/Time:	08/09/2024 14:36		
Direction:		Latitude:	34.924803
GPS Accuracy (m):	4.0	Longitude:	-110.272145
Description:	5.0 to 38.0ft All core		

MW-82A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 1

Technician Signature:	Technician Name:		QA/QC'd by:
	Joe Lopez		LK
	Date & Time:	Initials:	QA/QC Date:
	08/10/2024 06:17	JL	10/16/2024

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 1



Date/Time:	08/08/2024 12:36		
Direction:		Latitude:	34.927186
GPS Accuracy (m):	8.0	Longitude:	-110.270685
Description:	SM - SC 5.0 to 9.5 ft		

Photo 2



Date/Time:	08/08/2024 12:37		
Direction:		Latitude:	34.927116
GPS Accuracy (m):	4.0	Longitude:	-110.270763
Description:	SC 9.5 to11.5 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 3



Date/Time:	08/08/2024 12:38		
Direction:		Latitude:	34.927125
GPS Accuracy (m):	4.0	Longitude:	-110.270713
Description:	SC 11.5 to 13.5 ft		

Photo 4



Date/Time:			
Direction:		Latitude:	34.927111
GPS Accuracy (m):	4.0	Longitude:	-110.27073
Description:	SC 13.5 to 15 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 5



Date/Time:	08/08/2024 12:50		
Direction:		Latitude:	34.92713
GPS Accuracy (m):	6.0	Longitude:	-110.270752
Description:	SC Increase sands 15.0 to 17.0 ft		

Photo 6



Date/Time:	08/08/2024 12:51		
Direction:		Latitude:	34.927122
GPS Accuracy (m):	2.0	Longitude:	-110.27071
Description:	SC 17.0 to 19.0 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 7



Date/Time:	08/08/2024 12:52		
Direction:		Latitude:	34.927144
GPS Accuracy (m):	4.0	Longitude:	-110.270782
Description:	SC 19.0 to 21.0 ft		

Photo 8



Date/Time:	08/08/2024 12:53		
Direction:		Latitude:	34.927148
GPS Accuracy (m):	4.0	Longitude:	-110.270767
Description:	SC 21.0 to 23.0 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 9



Date/Time:	08/08/2024 12:55		
Direction:		Latitude:	34.927134
GPS Accuracy (m):	4.0	Longitude:	-110.270766
Description:	SC 23.0 to 25.0 ft		

Photo 10



Date/Time:	08/08/2024 13:13		
Direction:		Latitude:	34.927147
GPS Accuracy (m):	6.0	Longitude:	-110.270768
Description:	25.0 to 27.0 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 11



Date/Time:	08/08/2024 13:14		
Direction:		Latitude:	34.92713
GPS Accuracy (m):	4.0	Longitude:	-110.270747
Description:	27.0 to 29.0 ft		

Photo 12



Date/Time:	08/08/2024 13:15		
Direction:		Latitude:	34.927116
GPS Accuracy (m):	4.0	Longitude:	-110.270729
Description:	29.0 to 31.0 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 13



Date/Time:	08/08/2024 13:16		
Direction:		Latitude:	34.92712
GPS Accuracy (m):	4.0	Longitude:	-110.270741
Description:	31.0 to 33.0 ft		

Photo 14



Date/Time:	08/08/2024 13:17		
Direction:		Latitude:	34.927133
GPS Accuracy (m):	4.0	Longitude:	-110.27073
Description:	33.0 to 35.0 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 15



Date/Time:	08/08/2024 13:32		
Direction:		Latitude:	34.927144
GPS Accuracy (m):	4.0	Longitude:	-110.270743
Description:	SC 35.0 to 37.0 ft		

Photo 16

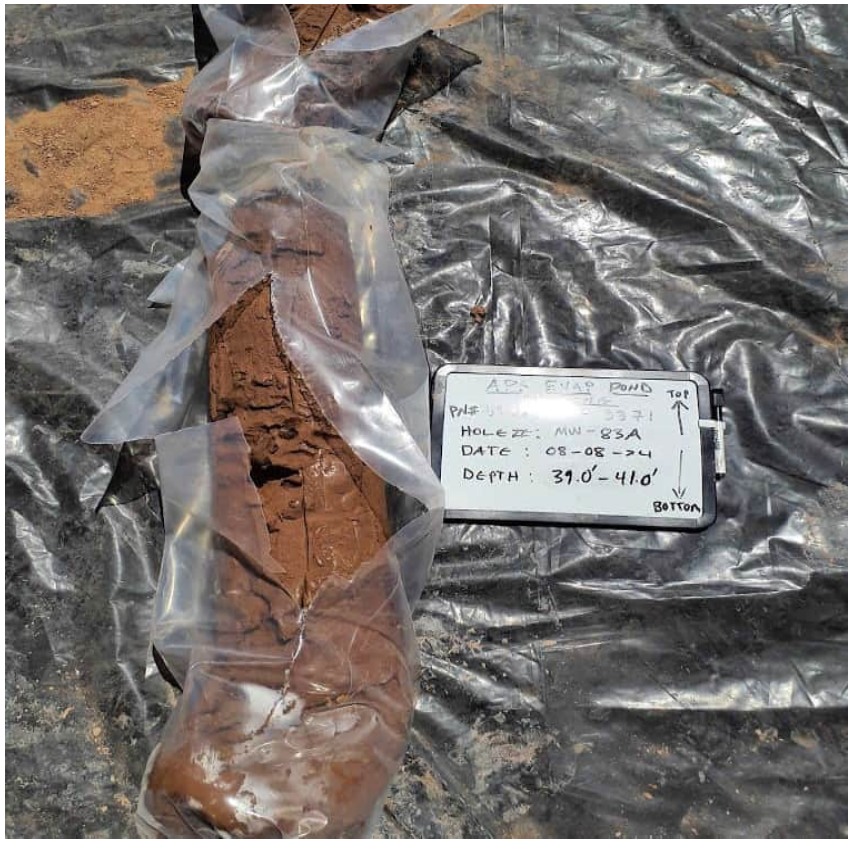


Date/Time:	08/08/2024 13:36		
Direction:		Latitude:	34.927131
GPS Accuracy (m):	4.0	Longitude:	-110.270782
Description:	SC 37. 0To 39.0 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 17



Date/Time:	08/08/2024 13:36		
Direction:		Latitude:	34.927153
GPS Accuracy (m):	8.0	Longitude:	-110.270688
Description:	CL 39.0 to 41.0 ft		

Photo 18



Date/Time:	08/08/2024 13:38		
Direction:		Latitude:	34.927135
GPS Accuracy (m):	4.0	Longitude:	-110.270737
Description:	CL 41.0 to 43.0 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 19



Date/Time:	08/08/2024 13:39		
Direction:		Latitude:	34.927129
GPS Accuracy (m):	8.0	Longitude:	-110.270748
Description:	CL 43.0 to 45.0 ft		

Photo 20



Date/Time:	08/08/2024 14:03		
Direction:		Latitude:	34.927157
GPS Accuracy (m):	4.0	Longitude:	-110.270759
Description:	CL Clay with gravel. 45.0 to 47.0 ft TD		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 21



Date/Time:	08/08/2024 14:05		
Direction:		Latitude:	34.927085
GPS Accuracy (m):	6.0	Longitude:	-110.270739
Description:	CL with gravel 47.0 to 49.0 ft		

Photo 22



Date/Time:	08/08/2024 14:06		
Direction:		Latitude:	34.927152
GPS Accuracy (m):	4.0	Longitude:	-110.270778
Description:	Moqui 49.0 to 50.5 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 23



Date/Time:	08/08/2024 14:07		
Direction:		Latitude:	34.927144
GPS Accuracy (m):	8.0	Longitude:	-110.270684
Description:	Moqui 50.5 to 52.0 ft		

Photo 24



Date/Time:	08/08/2024 14:34		
Direction:		Latitude:	34.927151
GPS Accuracy (m):	6.0	Longitude:	-110.270725
Description:	52.0 to 53.5 ft		

MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 25



Date/Time:	08/08/2024 14:34		
Direction:		Latitude:	34.927135
GPS Accuracy (m):	6.0	Longitude:	-110.270793
Description:	53.5 to 55.0 ft TD		

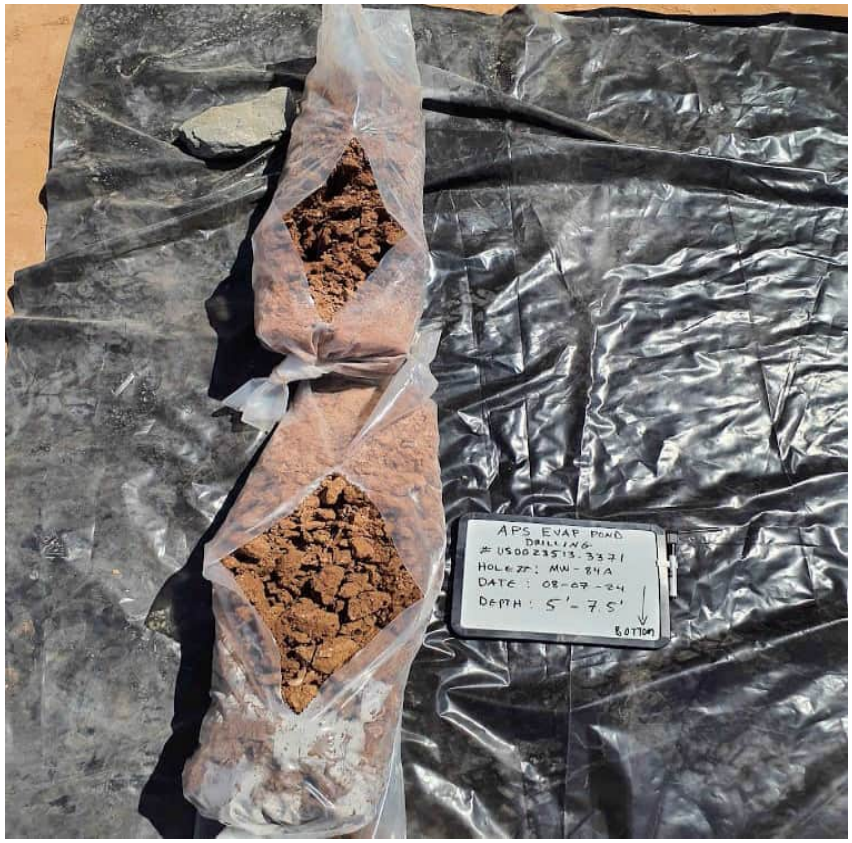
MW-83A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling			Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez		Photo Log Series: 2 of 2
Technician Signature:		Technician Name:		QA/QC'd by:
		Joe Lopez		LK
		Date & Time:	Initials:	QA/QC Date:
		08/08/2024 14:46	JL	10/16/2024

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 1



Date/Time:	08/07/2024 14:29		
Direction:		Latitude:	34.927226
GPS Accuracy (m):	4.0	Longitude:	-110.274615
Description:	Little Colorado Alluvium: SC Clayey Sand. (5 - 7.5 ft)		

Photo 2



Date/Time:			
Direction:		Latitude:	34.927214
GPS Accuracy (m):	4.0	Longitude:	-110.274628
Description:	Alluvium. 7.5 - 9.5 ft		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 3			
			
Date/Time:	08/07/2024 14:34		
Direction:		Latitude:	34.927211
GPS Accuracy (m):	8.0	Longitude:	-110.274587
Description:	Alluvium SC 9.5ft to 15 ft		

Photo 4			
			
Date/Time:	08/07/2024 14:37		
Direction:		Latitude:	34.927272
GPS Accuracy (m):	4.0	Longitude:	-110.27465
Description:	Alluvium SC Increase fines @ 15ft		

MW- 84A Photo Log

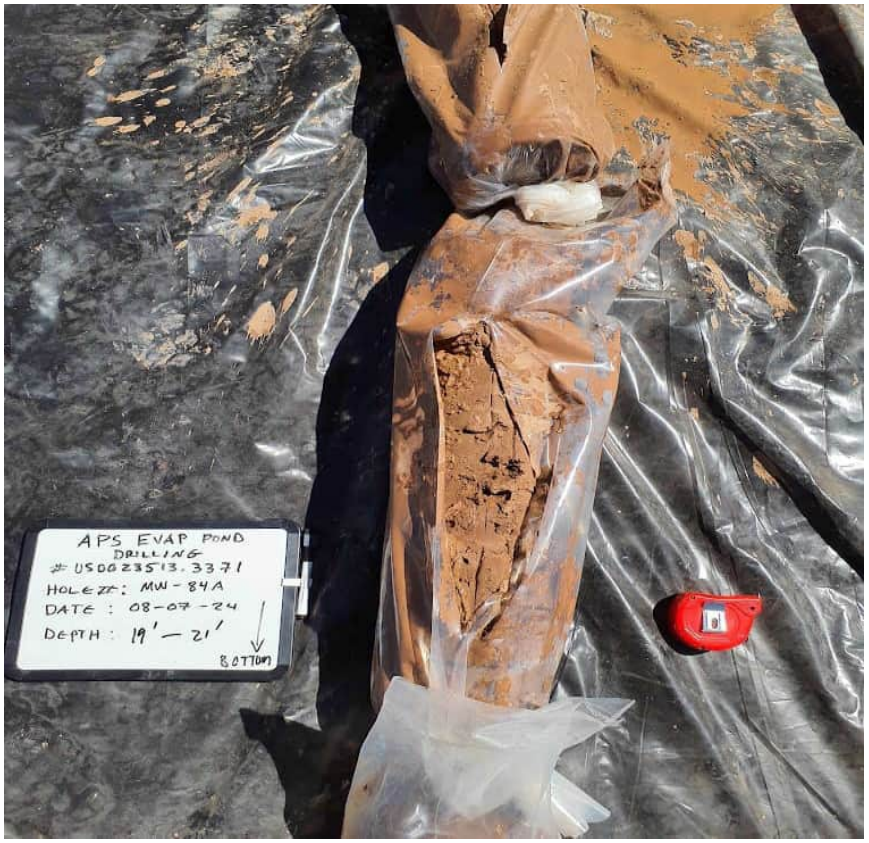
Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 5



Date/Time:	08/07/2024 14:39		
Direction:		Latitude:	34.927249
GPS Accuracy (m):	4.0	Longitude:	-110.27463
Description:	SC : 17 to 19.0 ft		

Photo 6



Date/Time:	08/07/2024 14:40		
Direction:		Latitude:	34.92727
GPS Accuracy (m):	4.0	Longitude:	-110.274617
Description:	SC: 19.0 to 21.0 ft		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 7			
			
Date/Time:	08/07/2024 14:41		
Direction:		Latitude:	34.927251
GPS Accuracy (m):	4.0	Longitude:	-110.274633
Description:	SC: 21.0 to 23.0 ft		

Photo 8			
			
Date/Time:	08/07/2024 14:42		
Direction:		Latitude:	34.92725
GPS Accuracy (m):	4.0	Longitude:	-110.27463
Description:	SC: Decrease clay 23.0 t0 25.0 ft		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 9



Date/Time:	08/07/2024 15:04		
Direction:		Latitude:	34.927208
GPS Accuracy (m):	4.0	Longitude:	-110.274654
Description:	25.0 to 27.0 ft		

Photo 10



Date/Time:			
Direction:		Latitude:	34.927213
GPS Accuracy (m):	4.0	Longitude:	-110.274651
Description:	27.0 to 29.0 ft		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 11



Date/Time:	08/07/2024 15:06		
Direction:		Latitude:	34.927215
GPS Accuracy (m):	4.0	Longitude:	-110.274647
Description:	29.0 to 31.0 ft		

Photo 12

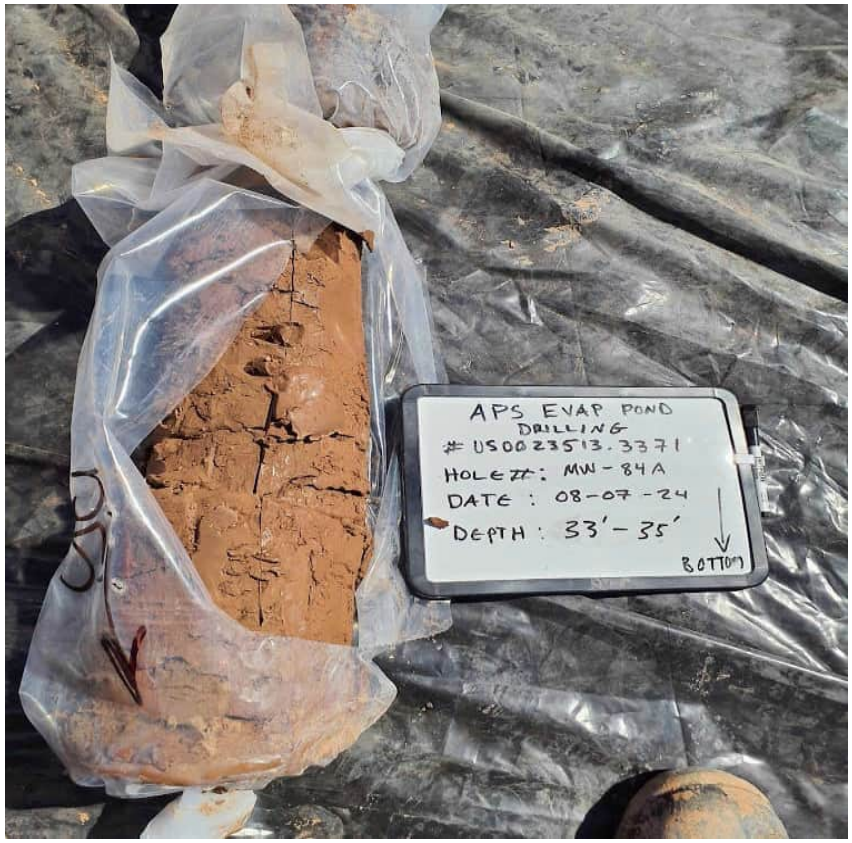


Date/Time:	08/07/2024 15:08		
Direction:		Latitude:	34.927226
GPS Accuracy (m):	4.0	Longitude:	-110.274638
Description:	31.0 to 33.0 ft		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 13



Date/Time:	08/07/2024 15:08		
Direction:		Latitude:	34.927194
GPS Accuracy (m):	8.0	Longitude:	-110.274659
Description:	33.0 to 35.0 ft		

Photo 14



Date/Time:	08/07/2024 15:21		
Direction:		Latitude:	34.927204
GPS Accuracy (m):	4.0	Longitude:	-110.274648
Description:	SP- SM aPoorly Graded Sand with Silt. 35.0 to 37.0 ft		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 15



Date/Time:	08/07/2024 15:23		
Direction:		Latitude:	34.927224
GPS Accuracy (m):	4.0	Longitude:	-110.274658
Description:	37.0 to 39.0 ft		

Photo 16



Date/Time:	08/07/2024 15:25		
Direction:		Latitude:	34.927215
GPS Accuracy (m):	4.0	Longitude:	-110.274667
Description:	39.0 to 41.0 ft		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 17



Date/Time:	08/07/2024 15:26		
Direction:		Latitude:	34.927223
GPS Accuracy (m):	4.0	Longitude:	-110.274669
Description:	41.0 to 43.0 ft		

Photo 18



Date/Time:	08/07/2024 15:27		
Direction:		Latitude:	34.927227
GPS Accuracy (m):	4.0	Longitude:	-110.274669
Description:	43.0 to 45.0 ft		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 2

Photo 19



Date/Time:	08/08/2024 07:21		
Direction:		Latitude:	34.927234
GPS Accuracy (m):	4.0	Longitude:	-110.274652
Description:	Moqui 45.0 to 47.0 ft		

Photo 20



Date/Time:	08/08/2024 07:23		
Direction:		Latitude:	34.927224
GPS Accuracy (m):	4.0	Longitude:	-110.274681
Description:	Moqui 47.0 to 48.5 ft		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 21



Date/Time:	08/08/2024 07:43		
Direction:		Latitude:	34.927221
GPS Accuracy (m):	4.0	Longitude:	-110.274688
Description:	48.5 to 50.0 ft TD		

Photo 22



Date/Time:	08/08/2024 07:44		
Direction:		Latitude:	34.927247
GPS Accuracy (m):	3.0	Longitude:	-110.274631
Description:	All core from MW-48A		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 23



Date/Time:	08/08/2024 07:45		
Direction:		Latitude:	34.927252
GPS Accuracy (m):	4.0	Longitude:	-110.274648
Description:	0' to 15'		

Photo 24



Date/Time:	08/08/2024 07:46		
Direction:		Latitude:	34.927242
GPS Accuracy (m):	3.0	Longitude:	-110.27466
Description:	15' to 25'		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 25



Date/Time:	08/08/2024 07:46		
Direction:		Latitude:	34.927247
GPS Accuracy (m):	3.0	Longitude:	-110.274658
Description:	25' to 35'		

Photo 26



Date/Time:			
Direction:		Latitude:	34.927231
GPS Accuracy (m):	3.0	Longitude:	-110.274671
Description:	35' to 45' Water bearing zone.		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Photo 27



Date/Time:	08/08/2024 07:48		
Direction:		Latitude:	34.927212
GPS Accuracy (m):	4.0	Longitude:	-110.274691
Description:	@35' fair water production. Wet.		

Photo 28



Date/Time:	08/08/2024 07:49		
Direction:		Latitude:	34.927233
GPS Accuracy (m):	3.0	Longitude:	-110.274698
Description:	Moqui 45' to 50' TD		

MW- 84A Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 2

Technician Signature:	Technician Name:		QA/QC'd by:
	Joe Lopez		LK
	Date & Time:	Initials:	QA/QC Date:
	08/08/2024 10:14	JL	10/16/2024

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 1



Date/Time:	08/11/2024 10:00		
Direction:		Latitude:	34.925912
GPS Accuracy (m):	4.0	Longitude:	-110.274365
Description:	0.0 to 5.0 ft Structural Fill		

Photo 2



Date/Time:	08/11/2024 10:07		
Direction:		Latitude:	34.925854
GPS Accuracy (m):	4.0	Longitude:	-110.274363
Description:	5.0 to 7.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 3



Date/Time:	08/11/2024 10:08		
Direction:		Latitude:	34.925873
GPS Accuracy (m):	4.0	Longitude:	-110.274341
Description:	7.0 to 9.0 ft		

Photo 4



Date/Time:	08/11/2024 10:08		
Direction:		Latitude:	34.925865
GPS Accuracy (m):	4.0	Longitude:	-110.274354
Description:	9.0 to 11.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 5



Date/Time:	08/11/2024 10:09		
Direction:		Latitude:	34.92586
GPS Accuracy (m):	4.0	Longitude:	-110.274358
Description:	11.0 to 13.0 ft		

Photo 6



Date/Time:	08/11/2024 10:10		
Direction:		Latitude:	34.925847
GPS Accuracy (m):	4.0	Longitude:	-110.27435
Description:	13.0 to 15.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 7



Date/Time:	08/11/2024 10:15		
Direction:		Latitude:	34.925898
GPS Accuracy (m):	4.0	Longitude:	-110.274354
Description:	15.0 to 17.0 ft		

Photo 8



Date/Time:	08/11/2024 10:16		
Direction:		Latitude:	34.925876
GPS Accuracy (m):	4.0	Longitude:	-110.274346
Description:	17.0 to 19.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 9



Date/Time:	08/11/2024 10:17		
Direction:		Latitude:	34.925879
GPS Accuracy (m):	4.0	Longitude:	-110.274352
Description:	19.0 to 21.0		

Photo 10



Date/Time:	08/11/2024 10:18		
Direction:		Latitude:	34.925863
GPS Accuracy (m):	4.0	Longitude:	-110.274345
Description:	21.0 to 23.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 11



Date/Time:	08/11/2024 10:19		
Direction:		Latitude:	34.925863
GPS Accuracy (m):	4.0	Longitude:	-110.274336
Description:	23.0 to 25.0 ft		

Photo 12



Date/Time:	08/11/2024 10:20		
Direction:		Latitude:	34.925875
GPS Accuracy (m):	3.0	Longitude:	-110.274349
Description:	25.0 to 27.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 13



Date/Time:	08/11/2024 10:34		
Direction:		Latitude:	34.925881
GPS Accuracy (m):	4.0	Longitude:	-110.274359
Description:	27.0 to 29.0 ft		

Photo 14



Date/Time:	08/11/2024 10:36		
Direction:		Latitude:	34.92587
GPS Accuracy (m):	4.0	Longitude:	-110.274343
Description:	29.0 to 31.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 15



Date/Time:	08/11/2024 10:36		
Direction:		Latitude:	34.92587
GPS Accuracy (m):	4.0	Longitude:	-110.274347
Description:	31.0 to 33.0 ft		

Photo 16



Date/Time:	08/11/2024 10:38		
Direction:		Latitude:	34.925867
GPS Accuracy (m):	4.0	Longitude:	-110.274333
Description:	33.0 to 35.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 17



Date/Time:	08/11/2024 12:11		
Direction:		Latitude:	34.925866
GPS Accuracy (m):	4.0	Longitude:	-110.274351
Description:	35.0 to 37.0 ft		

Photo 18



Date/Time:	08/11/2024 12:12		
Direction:		Latitude:	34.925867
GPS Accuracy (m):	4.0	Longitude:	-110.274363
Description:	37.0 to 39.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 1 of 3

Photo 19



Date/Time:	08/11/2024 12:13		
Direction:		Latitude:	34.925874
GPS Accuracy (m):	4.0	Longitude:	-110.274359
Description:	39.0 to 41.0 ft		

Photo 20



Date/Time:	08/11/2024 12:14		
Direction:		Latitude:	34.925873
GPS Accuracy (m):	4.0	Longitude:	-110.274356
Description:	41.0 to 43.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 21



Date/Time:	08/11/2024 12:15		
Direction:		Latitude:	34.925874
GPS Accuracy (m):	4.0	Longitude:	-110.274352
Description:	43.0 to 45.0 ft		

Photo 22



Date/Time:	08/11/2024 12:32		
Direction:		Latitude:	34.925874
GPS Accuracy (m):	8.0	Longitude:	-110.27431
Description:	45.0 to 47.0 ft		

MW-85C Photo Log

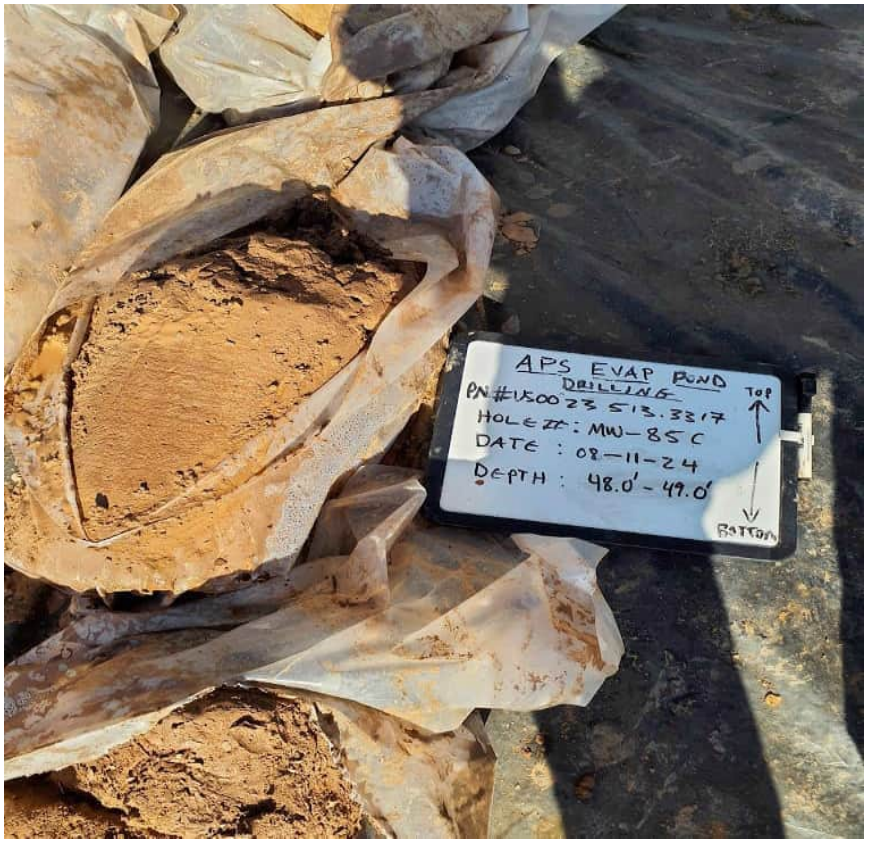
Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 23



Date/Time:	08/11/2024 12:32		
Direction:		Latitude:	34.925899
GPS Accuracy (m):	6.0	Longitude:	-110.274365
Description:	47.0 to 48.0 ft		

Photo 24



Date/Time:	08/12/2024 08:00		
Direction:		Latitude:	34.925895
GPS Accuracy (m):	12.0	Longitude:	-110.274214
Description:	48.0 to 49.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 25



Date/Time:	08/12/2024 08:02		
Direction:		Latitude:	34.925979
GPS Accuracy (m):	8.0	Longitude:	-110.274391
Description:	49.0 to 50.0 ft		

Photo 26



Date/Time:	08/12/2024 08:02		
Direction:		Latitude:	34.925903
GPS Accuracy (m):	4.0	Longitude:	-110.274292
Description:	50.0 to 55.0 ~3ft recovery		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 27



Date/Time:	08/12/2024 08:28		
Direction:		Latitude:	34.925857
GPS Accuracy (m):	4.0	Longitude:	-110.274361
Description:	Close up of 51.0 ft		

Photo 28



Date/Time:	08/12/2024 08:51		
Direction:		Latitude:	34.92585
GPS Accuracy (m):	4.0	Longitude:	-110.274356
Description:	Close up of 51.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 29



Date/Time:	08/12/2024 08:51		
Direction:		Latitude:	34.925836
GPS Accuracy (m):	12.0	Longitude:	-110.274344
Description:	Close up of approximately 49.0 to 51.0 ft		

Photo 30



Date/Time:	08/12/2024 08:52		
Direction:		Latitude:	34.925832
GPS Accuracy (m):	4.0	Longitude:	-110.274364
Description:	Close up of approximately 49.0 to 51.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 31



Date/Time:	08/12/2024 14:02		
Direction:		Latitude:	34.925847
GPS Accuracy (m):	4.0	Longitude:	-110.274383
Description:	55.0 to 60.0		

Photo 32



Date/Time:	08/12/2024 14:02		
Direction:		Latitude:	34.925809
GPS Accuracy (m):	4.0	Longitude:	-110.274392
Description:	60.0 to 65.0		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 33



Date/Time:	08/12/2024 14:03		
Direction:		Latitude:	34.925808
GPS Accuracy (m):	4.0	Longitude:	-110.274398
Description:	65.0 to 70.0 ft		

Photo 34



Date/Time:	08/13/2024 06:21		
Direction:		Latitude:	34.925838
GPS Accuracy (m):	3.0	Longitude:	-110.274361
Description:	70.0 to 80.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 35



Date/Time:	08/13/2024 07:16		
Direction:		Latitude:	34.925845
GPS Accuracy (m):	6.0	Longitude:	-110.274342
Description:	80.0 to 85.0 ft		

Photo 36



Date/Time:	08/13/2024 07:18		
Direction:		Latitude:	34.925962
GPS Accuracy (m):	8.0	Longitude:	-110.274384
Description:	85.0 to 90.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 37



Date/Time:	08/13/2024 07:26		
Direction:		Latitude:	34.925853
GPS Accuracy (m):	12.0	Longitude:	-110.274241
Description:	90.0 to 95		

Photo 38



Date/Time:	08/13/2024 07:28		
Direction:		Latitude:	34.925837
GPS Accuracy (m):	4.0	Longitude:	-110.274343
Description:	95.0 to 100.0		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 2 of 3

Photo 39



Date/Time:	08/13/2024 07:37		
Direction:		Latitude:	34.92584
GPS Accuracy (m):	8.0	Longitude:	-110.274354
Description:	100.0 to 105.0 ft		

Photo 40

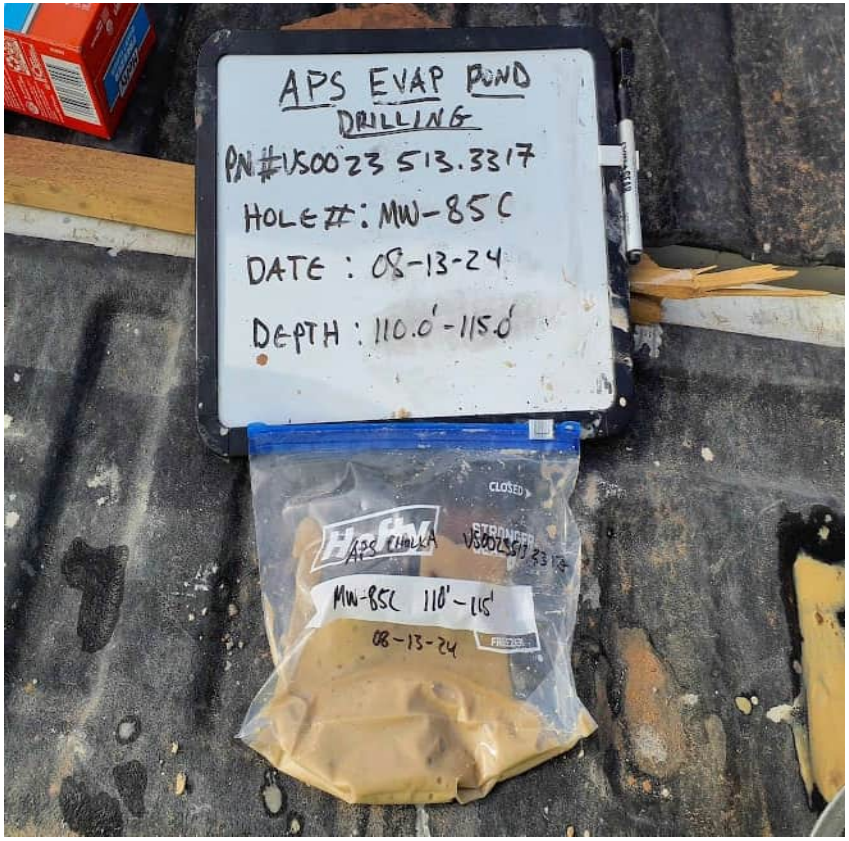


Date/Time:	08/13/2024 07:37		
Direction:		Latitude:	34.925881
GPS Accuracy (m):	12.0	Longitude:	-110.274354
Description:	105.0 t0 110.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 3 of 3

Photo 41



Date/Time:	08/13/2024 08:02		
Direction:		Latitude:	34.925843
GPS Accuracy (m):	3.0	Longitude:	-110.274337
Description:	110.0 to 115.0 ft		

Photo 42

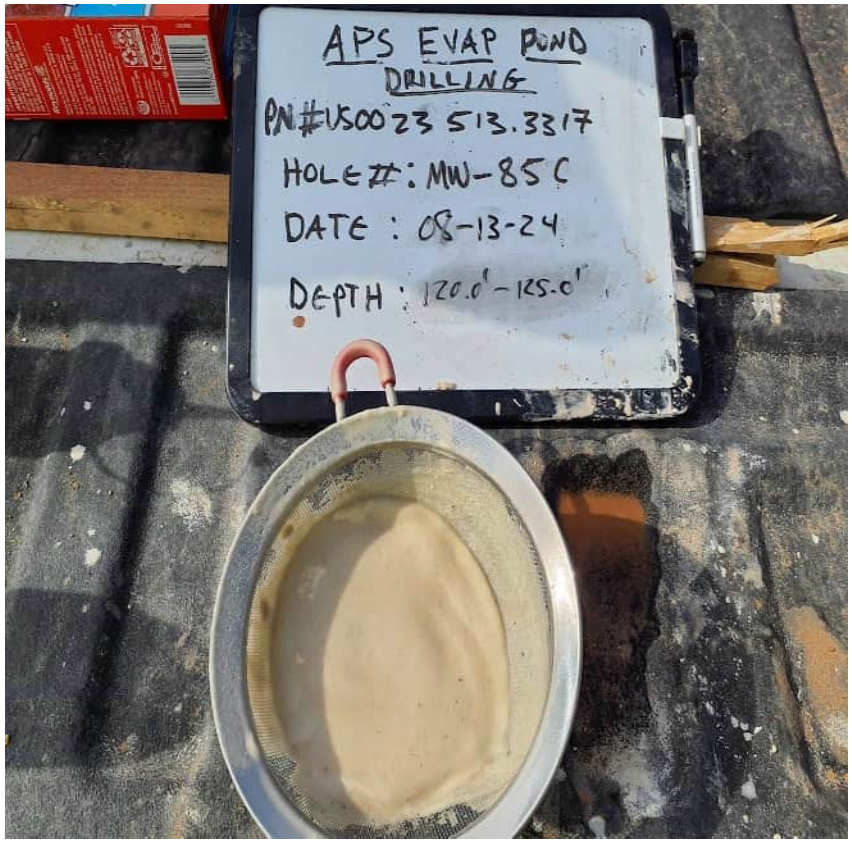


Date/Time:	08/13/2024 08:03		
Direction:		Latitude:	34.925845
GPS Accuracy (m):	4.0	Longitude:	-110.274388
Description:	115.0 to 120.0 ft		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling		Project Number: US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 3 of 3

Photo 43



Date/Time:	08/13/2024 08:23		
Direction:		Latitude:	34.92584
GPS Accuracy (m):	4.0	Longitude:	-110.27434
Description:	120.0 to 125.0 ft		

Photo 44



Date/Time:	08/13/2024 08:23		
Direction:		Latitude:	34.92583
GPS Accuracy (m):	4.0	Longitude:	-110.274315
Description:	125.0 to 130 TD		

MW-85C Photo Log

Project Name:	APS Cholla Evaporation Pond Drilling	Project Number:	US0023513.3371
Project Manager:	Maren Henley	Field Personnel: Joe Lopez	Photo Log Series: 3 of 3

Technician Signature:	Technician Name:		QA/QC'd by:
	Joe Lopez		LK
	Date & Time:	Initials:	QA/QC Date:
	08/14/2024 05:56	JL	10/16/2024

APPENDIX

C DAILY LOGS

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/05/24
Technician(s):	Joe Lopez	**Weather:**	Cloudy
Field Activity:	Utility locate and mobilization.		

Description of Daily Activities and Events:

Time	Observation/Comment
06:00	Arrived on site. Met Cody Miller (APS) at main gate.
06:30	Utility locator is on site. Begin locating utilities at boreholes.
07:40	Located 4 borehole locations. Begin locating 5th borehole.
08:14	Utility locator has discovered a live electric line near MW85C. Locate data is good for 15 days.
08:30	Utility locator is offsite.
09:16	Confirmed staging area with FHI.
16:26	Yellow Jacket Drilling on site.
16:46	YJD and WSP offsite.

List of Samples Collected:	None.
Deviation from Plans:	None.
Visitors on Site:	Dennis (FHI)
Important Telephone Calls / Photos Taken:	See photo log.

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		18:36

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/06/24
Technician(s):	Joe Lopez, Nic Garnand	**Weather:**	Clear skies, 100 degrees
Field Activity:	Evaporation Pond drilling.		

Description of Daily Activities and Events:

Time	Observation/Comment
06:07	WSP and YJD on site at evaporation ponds. Start of safety meeting.
06:34	Completed safety meeting.
09:01	Final YJD well materials arrived on site.
09:12	Drill rig mobilized to MW80A.
09:19	Begin hand angering MW80A.
09:51	Drill rig set to start sonic.
10:45	YJD is taking a break for lunch.
11:27	Lunch break ended. Start of drilling.
15:19	Well MW80A annular materials completed to top bentonite seal. 41 to 45 ft of bentonite, 28 to 41 ft of filter sand, 26 to 28 ft of fine sand, and 24 to 26 ft of chips. Screened from 30 to 40 ft to capture the alluvial water table at approximately 27 feet and 2ft of the moist highly weathered Moqui (38 to 40 ft).
16:00	YJD informed WSP that schedule 40 pvc was placed in the MW80A borehole. The tech specs call for schedule 80, and well casing must be replaced with correct schedule 80 pvc. YJD will have schedule 80 delivered on 08-07-24.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	FHI
Important Telephone Calls / Photos Taken:	Photolog

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		21:26

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/07/24
Technician(s):	Joe Lopez	**Weather:**	Clear skies.
Field Activity:	Drilling.		

Description of Daily Activities and Events:

Time	Observation/Comment
06:00	Tailgate safety.
06:39	Begin drilling out schedule 40 pvc.
08:30	Well materials successfully excavated to 46 ft. Placed the bentonite seal from 41ft to 46ft. Waiting for schedule 80 pvc arrive.
09:03	Schedule 40 PVC has arrived on site.
10:27	Top bentonite seal placed. Drillers break for lunch. Top seal from 24 to 26 ft, transition sand from 26 to 28 ft, filter sand from 28 to 41 ft, and bottom seal from 41 to 46 ft
11:17	Placing the bentonite cement grout seal.
12:00	Cement grout placed to surface. Waiting for grout to settle.
12:27	MW80A completed. All the remains is to set monument.
12:33	Rig mobilized to MW84A. Begin setting up.
14:08	Start drilling borehole MW84A
16:00	Drilled MW-84A to 45 ft. WSP and YJD off site.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	Photo log

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		06:25

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/08/24
Technician(s):	Joe Lopez	**Weather:**	Sunny with chance of scattered thunderstorms. Humid. Warm to hot. High of 100 degrees Fahrenheit.
Field Activity:	MW-84A Drilling and well installation.		

Description of Daily Activities and Events:

Time	Observation/Comment
06:30	Tailgate safety meeting conducted. Setting up drill rig to complete remaining footage.
07:52	TD of 50.0 ft reached on hole MW-84A at 07:52.
08:35	Start of MW-84A well installation.
09:20	Stopping to allow bentonite chips to hydrate.
10:03	Bentonite hydrate period complete. Resume installation of annular materials.
10:42	MW-84A annular grout placed. Well near complete. Drillers will alow grout to set and then return to place monument.
11:18	Rig mobilized to MW-83A. Begin setting up.
12:00	Lunch break.
12:15	Lunch break over.
14:22	TD hole at 55 ft.
15:17	WL taken at 31 ft. WL is rising. Allow time to recover.
15:24	WL taken at 29 ft.
15:36	WL taken at 29 ft.
16:00	Offsite. Summary: Drilled to TD of 55 ft into the Moqui. Will likely screen from 35 to 45 ft.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	Dennis FHI
Important Telephone Calls / Photos Taken:	Core photos. Daily photos

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		04:53

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/09/24
Technician(s):	Joe Lopez	**Weather:**	Clear skies. Chance of thunderstorms
Field Activity:	Drilling		

Description of Daily Activities and Events:

Time	Observation/Comment
06:00	Arrived on site. Safety meeting.
06:34	Begin setting up to run casing for MW-83A.
06:37	During Safety Meeting, the driller Jose Munguia notified WSP's Geologist Joe Lopez that the rig is losing vibes while drilling. YJD maintenance crews have been notified to dispatch a mechanic for a replacement pump. ETA on pump is unknown at this time.
06:40	Driller begins tripping casing.
07:21	Begin installing annular bentonite bottom seal by casing method.
07:34	Begin setting the schedule 80 pvc at MW-83A.
08:02	Stopping to allow bentonite top seal to hydrate.
08:45	Begin placing annular bentonite grout.
09:35	Rig moved to MW-82A.
10:01	Asking Jeff Melton FHI to verify the placement of MW-82A before drilling.
10:15	Jeff Melton FHI came to MW-82A and confirmed placement of hole.
11:00	Rig mobilized to MW-82A and is set up to drill. Waiting for pump to arrive and drill head to be fixed before drilling.
12:57	Rig is repaired. Approximately 1.8 hours of downtime.
13:00	Drilling begins at MW-82A.
14:31	TD @ 38.0 ft.
16:00	Offsite.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	Photo logs

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		06:15

QA/QC'd by: **QA/QC Date:**

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/09/24
Technician(s):	Joe Lopez	**Weather:**	Clear skies. Chance of thunderstorms
Field Activity:	Drilling		

Description of Daily Activities and Events:

Time	Observation/Comment
06:00	Arrived on site. Safety meeting.
06:34	Begin setting up to run casing for MW-83A
06:37	During Safety Meeting, the driller Jose Munguia notified WSP's Geologist Joe Lopez that the rig is losing vibes while drilling. YJD maintenance crews have been notified to dispatch a mechanic for a replacement pump. ETA on pump is unknown at this time.
06:40	Driller begins tripping casing.
07:21	Begin installing annular bentonite bottom seal by casing method.
07:34	Begin setting the schedule 80 pvc at MW-83A.
08:02	Stopping to allow bentonite top seal to hydrate.
08:45	Begin placing annular bentonite grout.
09:35	Rig moved to MW-82A
10:01	Asking Jeff Melton FHI to verify the placement of MW-82A before drilling
10:15	Jeff Melton FHI came to MW-82A and confirmed placement of hole.
11:00	Rig mobilized to MW-82A and is set up to drill. Waiting for pump to arrive and drill head to be fixed before drilling.
12:57	Rig is repaired. Approximately 1.8 hours of downtime.
13:00	Drilling begins at MW-82A.
14:31	TD @ 38.0 ft
16:00	Offsite.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	Photo logs

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		06:15

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/10/24
Technician(s):	Joe Lopez	**Weather:**	Partly cloudy
Field Activity:	Drilling and well installation.		

Description of Daily Activities and Events:

Time	Observation/Comment
06:00	WSP and Yellow Jacket on site. Conduct safety meeting.
06:53	WL taken at MW-83A. WL at 31.5 ft from TOC. Screened from 35 to 45 ft.
06:53	WL taken at MW-84A. WL at 28.6 ft from TOC. screened interval from 35 to 45 ft.
07:05	WL taken at MW80A. WL at 28.8 ft from TOC. Screened interval from 30 to 40 ft.
07:11	YJD is setting schedule 80 PVC well casing at MW-82A.
09:27	MW-82A Bentonite seal hydrated. Placing the bentonite grout.
09:46	Grout at MW-82A placed to the surface. Start of mobilization to MW-81A.
11:00	Rig has finished mobilizing to MW-81A. Taking a lunch break.
11:53	Start of drilling at MW-81A.
13:10	TD @ 55.0 ft reached.
13:56	Continuing to clean out hole.
14:17	Adding bottom bentonite seal at MW-81A.
14:33	Placing the schedule 80 PVC.
15:24	Crew is cleaning up, taking materials count.
15:43	WSP and YJD offsite.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	See Core Photo and Daily Logs

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		06:34

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/11/24
Technician(s):	Joe Lopez	**Weather:**	Clear
Field Activity:	Drilling and well installation.		

Description of Daily Activities and Events:

Time	Observation/Comment
06:00	Arrived on site. Safety meeting.
06:37	Setting up and preparing to finish the installation of MW-81A well.
06:53	WL taken at MW-82A. WL at 31.4 ft from top of casing. TOC at 2.4 ft. WL at 29.0 ft bgs.
06:55	YJD is mix8ng bentonite grout at MW-82A.
07:28	Grout has been completed at MW-81A. MW-81A is complete.
08:24	Crew is loading the 10 inch casing.
09:13	Rig a d support truck have mobilized to MW-85C.
11:15	Break
12:01	Resume drilling.
13:10	Driller must run water to core through at 48 ft. Drilling rates have reduced significantly.
13:45	Shutdown for lightning and inclement weather.
14:33	EOD mobilize to hotel.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	Core and Daily Photo logs

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		05:53

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/12/24
Technician(s):	Joe Lopez	**Weather:**	Clear
Field Activity:	Drilling MW-85C		

Description of Daily Activities and Events:

Time	Observation/Comment
06:00	Arrive on site and begin safety meeting.
06:25	Discussed safety concerns of inclement weather. Also discussed how to drill the remainder of the hole. Joe Lopez WSP has discussed how to drill the MW-85C well with PM B. Weaver. Because the drillers cannot effectively sonic drill through the bedrock, it has been decided that the alluvial aquifer will be sealed to 50 feet with a 10-inch casing, and then the rig will switch to 8 inch air rotary.
08:21	Advancing the 10 inch casing to 50ft.
09:03	The 10 inch casing is being advanced. Very hard drilling. Rig is kicking.
09:30	Switching to air rotary.
12:10	Lunch break.
12:30	Checking air rotary systems.
13:42	73 ft ~23 gal per min.
13:48	73 to 80 ft 5 gal in 2min 25 sec.
14:07	Shutdown for lightning.
14:46	Offsite.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	Daily photos

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		20:24

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/13/24
Technician(s):	Joe Lopez	**Weather:**	Cloudy
Field Activity:	Drilling MW85C		

Description of Daily Activities and Events:

Time	Observation/Comment
05:50	YJD and WSP onsite.
06:15	Conduct safety meeting
07:08	Start drilling.
08:30	TD 130.0 ft at MW-85C.
09:07	Start air lifting hole.
09:46	Removing manifold for well installation.
11:37	Breaking down the remaining air rotary equipment.
12:06	Shutdown for lightning. Stop work.
13:27	Inclement weather and road conditions are worsening. Waiting out storms. Planning remaining tasks with FHI and YJD in person at office.
15:00	Offsite.

List of Samples Collected:	Cuttings from 80 ft to 130 ft TD
Deviation from Plans:	Shutdown for inclement weather
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	Daily Photo and Core Log

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		21:01

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/14/24
Technician(s):	Joe Lopez	**Weather:**	Clear
Field Activity:	MW85C		

Description of Daily Activities and Events:

Time	Observation/Comment
05:55	YJD and WSP on site. Safety meeting.
07:02	WL tagged at 31 ft. Tagged TD at 128.0 ft.
09:09	YJD safety on site. Delivery of pel plug pellets.
09:47	5 bucket of pel plug. Allow time to hydrate.
10:27	Seal tagged at 88.0 ft.
11:30	Bentonite cement grout has been placed to 40 ft. Allow time to settle and then tag again.
11:59	Place final batch of cement grout.
12:44	Batch is set. Allowing to cure. Drillers are cleaning up site. Prepping materials.
14:44	EOD.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	Photo log

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		06:40

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/15/24
Technician(s):	Joe Lopez	**Weather:**	Clear
Field Activity:	Well completions		

Description of Daily Activities and Events:

Time	Observation/Comment
06:00	Arrived on site. Safety meeting.
06:42	Begin placing the neat cement at MW85C.
08:46	Crew has loaded equipment on trailers. Helpers are setting monuments on alluvial wells.
09:04	Monument at MW80A.
10:17	Monument at MW80A set. Take break.
11:31	Setting monument at MW-84A.
14:38	Monument at MW-83A and MW-82A set.
16:00	Rig Off site. YJD and WSP offsite.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	Daily Photo Log

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		20:49

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/16/24
Technician(s):	Joe Lopez	**Weather:**	Clear
Field Activity:	Well completions		

Description of Daily Activities and Events:

Time	Observation/Comment
06:00	YJD and WSP On-site.
06:15	MW-82 stick up 2 ft 9 in.
06:19	MW-83A stick 2 ft in.
06:22	MW-84A stick up 2 ft 11 in
06:24	MW-80A Stick up 2 ft 11 in
06:25	YJD is mixing concrete at MW-81A.
07:52	MW-81A well monument completed.
11:03	All wells completed. Pack up to demob.
12:13	Offsite.

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	Daily Photo Log

Technician Signature	Technician Name (print)	Initials
	Joe Lopez	JL
		Time
		11:30

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/19/2024

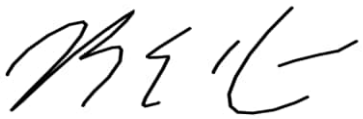
SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/23/24
Technician(s):	Brad Hartman	**Weather:**	80s, clear
Field Activity:	Well development		

Description of Daily Activities and Events:

Time	Observation/Comment
06:28	WSP and YJD On-site, no FHI for day. Mob to well MW85C. Plan to pump ~2hrs to clear up turbidity. Was around 50 NTU after 5 hrs pumping yesterday
06:41	WSP mob to security for systems access key to ensure not locked out.
07:07	Tailgate safety
07:10	WL 31.21 from top of support jack, 0.68ft above TOC. Start pump
08:50	Turbidity hit sub 10 for 15 minutes in a row. Notify YJD to stop break down
08:54	Pump off, final WL 34.69 from support jack. Approximately 800 gal removed. Continue break down at well site, plan to mob to BAP to unload pumped water.
10:00	MW85C site broke down, mob to BAP to dispose of water.
10:21	Dispose of water at BAP
11:58	Set up at MW-84A, YJD quick lunch after dumping development water
12:05	WL MW-84A 28.58 BTOC, TD 48.05 BTOC
12:13	Begin bail-swab-bail
13:35	Pump on, try to stabilize low flow. 1st set of bail removed 19.5gal, 2nd set removed 8.5 gal
13:43	Flow at 0.33 gpm, refer to field paperwork for readings
15:55	Prep to breakdown, turbidity to 16NTU, will run for 1-2 hrs to get below 10.
16:01	Pump off
16:16	Offsite

List of Samples Collected:	None
Deviation from Plans:	Run pump at 0.33gpm instead of 0.5gpm lowest rate
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	None

Technician Signature	Technician Name (print)	Initials
	Brad Hartman	Beh
		Time
		17:46

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/9/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/24/24
Technician(s):	Brad Hartman	**Weather:**	80s, clear, breezy
Field Activity:	Well development		

Description of Daily Activities and Events:

Time	Observation/Comment
06:28	WSP and YJD On-site, mob to well MW84A
06:42	Set up on site, prep for 1-2 hrs purge.
07:01	Tailgate safety, Ysi calibration
07:29	WL 28.62 btoc
07:32	Pump on, dial in - 0.5gpm
07:40	First reading - refer to field forms
08:49	Pump off, turbidity sub 5NTU. Break down
09:07	Set up on MW83A.
09:13	WL 31.66 btoc. Td 47.74 btoc
09:41	First round of bailing drained well 18gal total. Allow recharge
10:00	Water level above screen, swab well
10:24	2nd round of bail. 11 gal purge
10:38	Set up pump to run low gpm. May not sustain. Instruct YJD not to pump below top of screen.
10:50	Pump on, dial in
10:59	0.25gpm, refer to field forms
16:00	Collect last reading for day, 40NTU, continue in morning. Breakdown site
16:21	Offsite

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None

Important Telephone Calls / Photos Taken:	None

Technician Signature	Technician Name (print)	Initials
	Brad Hartman	Beh
		Time
		18:07

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/9/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/25/24
Technician(s):	Brad Hartman	**Weather:**	80s, partly cloudy
Field Activity:	Well development		

Description of Daily Activities and Events:

Time	Observation/Comment
06:38	WSP and YJD On-site, mob to MW83A.
07:00	Set up on MW83A, safety meeting
07:06	Calibration of YSI, continue set up on well
07:13	WL 31.67 BTOC
07:30	Pump on, dial in
07:35	0.25gpm, first reading- refer to field forms
08:11	Pump off, turbidity sub 5 NTU. Break down MW83A.
08:33	Set up MW82A
08:37	WL 30.55 btoc, TD 32.67 BTOC. 2.12ft of water. YJD will bail, swab, bail. Unlikely to be able to pump
08:53	Bail ~1.9gal, dtw is 32.33 btoc. 0.34 ft of water in well. Will monitor recharge 30 minute, see field notes.
09:24	0.29ft of recovery. Bail 2nd time to get ysi data. ~0.21 gal bailed. Plan to let recharge over night. Swab first thing tomorrow. Then Bail. Will most likely have to bladder pump sample without development pumping
09:32	Breakdown at MW82A. WL is 32.19 btoc
09:43	Set up at MW81A
09:45	WL 29.58 btoc, TD 48.11 btoc. Set up to bail-swab-bail
10:25	Bailed to 48.06. 19.5gal bailed. Let recharge then swab
10:47	Start swab, WL 38.00
11:11	Start bail round 2.
11:36	Lots of fine sands contuing in bail. 47.10 btoc WL.
12:00	Dtw 34.10. Bail round 3
12:22	YJD suspects water in well at screen is holding back sands from pushing in. When bail drains water below top of screen, fine sands are coming in

12:40	Pump on, dial in.
12:44	0.33gpm. Check field forms for readings
15:57	Pump off. Turbidity at 8 NTU. Breakdown
16:21	Offsite

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	None

Technician Signature	Technician Name (print)	Initials
	Brad Hartman	Beh
		Time
		20:52

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/9/2024

SUMMARY OF DAILY ACTIVITIES

Project Name:	APS Cholla Evaporation Pond Drilling	**Project Number:**	US0023513.3371
Project Manager:	Maren Henley	**Date:**	08/26/24
Technician(s):	Brad Hartman	**Weather:**	80s, clear, breezy
Field Activity:	Well development		

Description of Daily Activities and Events:

Time	Observation/Comment
06:44	WSP and YJD On-site, breaking down MW81A, will mob to MW82A to check Water level and bail whatever is left due to low original level and poor recharge. Will then proceed to MW80A to develop
07:07	Safety meeting - hydration important
07:25	MW-82A WL 31.49 btoc. td at 32.67. Bail
07:27	Start YSI calibration
07:35	MW82A bailed to 32.30 BTOC. 0.75gal removed. Breakdown, mob to MW80A
07:48	Set up on MW80A. 28.84 dtw btoc. 43.13 td btoc. Begin bail
08:23	28.95 dtw after bail round 1. 6.75gal removed. Swab begin
08:45	Swab ends, bail round 2 begin
09:06	Bail round 2 over, set up pump. 29.03 dtw btoc
09:16	Pump on, 0.75gpm. Refer to field notes for development data
13:01	Well developed, stabilized around 7 NTU. Breakdown. YJD must go to shop for tire repair
13:29	Offsite, return in AM to dump development water and demonstrate for YJD. WSP will begin samplings

List of Samples Collected:	None
Deviation from Plans:	None
Visitors on Site:	None
Important Telephone Calls / Photos Taken:	None

Technician Signature	Technician Name (print)	Initials
	Brad Hartman	Beh
		Time
		22:26

QA/QC'd by: Nicolas Garnand **QA/QC Date:** 9/9/2024

APPENDIX

D

DEPARTMENT OF WATER RESOURCES WATER WELL DRILLING PERMIT

MW-80A

ARIZONA DEPARTMENT OF WATER RESOURCES

Phoenix, Arizona 85007

DRILLING CARD
VARIANCE GRANTED

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-931375**

AUTHORIZED DRILLER: **YELLOW JACKET DRILLING SERVICES, LLC** LICENSE NO: **78**

NOTICE OF INTENT TO **DRILL A ENV - MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **ARIZONA PUBLIC SERVICES**

ADDRESS: **PO BOX 188 M/S 4458, JOSEPH CITY, AZ, 86032**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

NW 1/4 of the **NW** 1/4 of the **NW** 1/4 Section **25** Township **18 N** Range **19 E**

NO. OF WELLS IN THIS PROJECT: **1** ASSESSOR'S PARCEL NO: **107-23-003**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **8/5/2025**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named Driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the addres above to correct.

Variance(s) Granted To Driller:

- Shortened Surface Seal Variance – Surface seal casing may be less than 20 feet, but not be less than 5 feet.
- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

- ☑ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.
- ☑ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.
- ☑ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.
- ☑ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

☑ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

☑ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

☑ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

☑ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

ARIZONA DEPARTMENT OF WATER RESOURCES
Electronic Filing - NOI Report

Phoenix, Arizona

NOI Type: Notice of Intent to Drill, Deepen, Modify a Monitor/Piezometer/Environmental Well
Well Type: ENV - MONITOR
Date Received at ADWR Website: 8/5/2024

Fee Paid: $150.00 Order Number: 15911

Well Registration Number: 55 - 931375
Number of Wells/Holes: 1 Drilling Authority Expires On: 8/5/2025

Driller's ADWR License Number: 78

Authorized Driller: YELLOW JACKET DRILLING SERVICES, LLC
ROC License Number Entered By Driller: 218848
Qualifying Party License Categories: A-4

Well Owner Name: ARIZONA PUBLIC SERVICES
Well Owner Address: PO BOX 188 M/S 4458
Well Owner City, State - Zip: JOSEPH CITY, AZ - 86032
Well Owner Phone: 602 723-2691

Date Construction is Scheduled to Begin: 6/8/2024

Book: 107 Map:23 Parcel: 003

Is the Land Owner the same as the Well Owner?: Yes

Well Location: **NW** 1/4 of the **NW** 1/4 of the **NW** 1/4 Section **25** Township **18 N** Range **19 E**

AMA: JOSEPH CITY INA
County: NAVAJO
Contamination Site: NOT IN A REMEDIAL ACTION SITE

Depth: 55
Diameter: 8
Type of Casing of Proposed Well: PVC

Primary Water Use: **MONITORING**
Secondary Water Use(s): **N/A**

Is any portion of the land, on which the well is to be located, within 100 feet of a designated municipal provider's operating water distribution system as shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR. **No**

Will you be installing a dedicated pump ?: **Yes**

Will the installed pump have a pumping capacity of greater than 35 GPM, or will the well will be used to withdraw greater than 10 Acre Feet per year?: **No**

Variance(s) Granted To Driller:

- Shortened Surface Seal Variance – Surface seal casing may be less than 20 feet, but not be less than 5 feet.
- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

☑ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

☑ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

☑ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

☑ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

☑ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

☑ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

☑ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

☑ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

NOTICE

A.R.S. § 41-1030(B), (D), (E) and (F) provide as follows:

B. An agency shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule or state tribal gaming compact. A general grant of authority in statute does not constitute a basis for imposing a licensing requirement or condition unless a rule is made pursuant to that general grant of authority that specifically authorizes the requirement or condition.

D. This section may be enforced in a private civil action and relief may be awarded against the state. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against the state for a violation of this section.

E. A state employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the agency's adopted personnel policy.

F. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, Arizona 85007
(602) 771-8527 • www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER: **A(18-19) 25 BBB**
WELL REGISTRATION NUMBER: **55 - 931375**
PERMIT NUMBER (IF ISSUED):

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
YELLOW JACKET DRILLING SERVICES, LLC	78
ADDRESS	**TELEPHONE NUMBER**
3922 E UNIVERSITY DR., SUITE 1	602-453-3252
CITY / STATE / ZIP	**FAX**
PHOENIX, AZ, 85034	

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: ARIZONA PUBLIC SERVICES
MAILING ADDRESS: PO BOX 188 M/S 4458
CITY / STATE / ZIP: JOSEPH CITY, AZ, 86032
CONTACT PERSON NAME AND TITLE:
TELEPHONE NUMBER: 602 723-2691
FAX:
WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.):

COUNTY	ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
NAVAJO	107	23	003

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE 1/4	40 ACRE 1/4	10 ACRE 1/4

LATITUDE			LONGITUDE		
° DEGREES	' MINUTES	"N SECONDS	° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method
CHECK ONE
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development
CHECK ONE
☐ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well
CHECK ONE
☐ Capped ☐ Abandoned
☐ Pump Installed ☐ **Not Drilled**

Method of Sealing at Reduction Points
CHECK ONE
☐ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates
DATE WELL CONSTRUCTION STARTED
DATE WELL CONSTRUCTION COMPLETED

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY	DATE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931375

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING (Feet Below Land Surface)	DEPTH OF COMPLETED WELL (Feet Below Land Surface)

Water Level Information

STATIC WATER LEVEL (Feet Below Land Surface)	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
			☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931375

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE		**Description** Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)
FROM (feet)	TO (feet)		

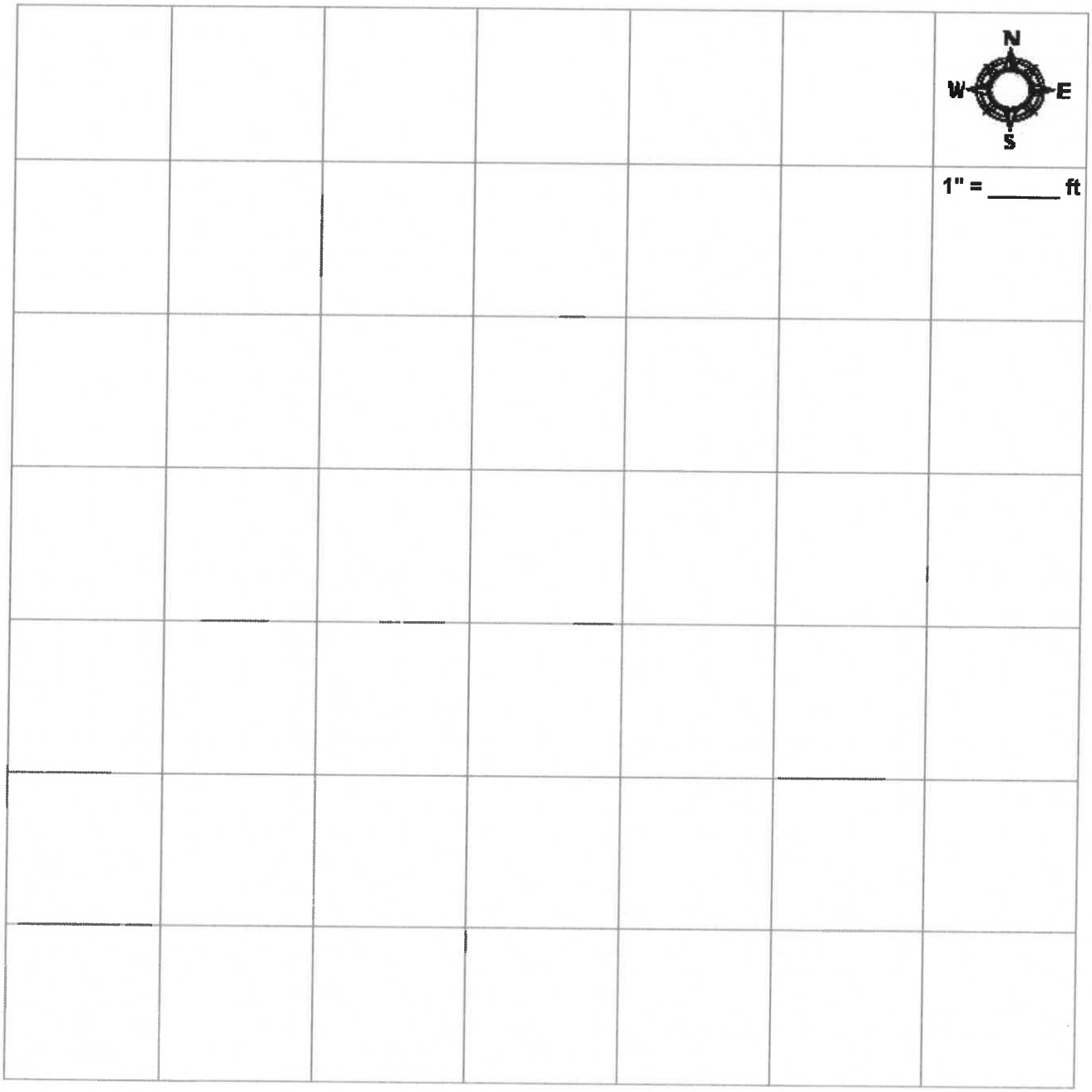
Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931375

SECTION 6. WELL SITE PLAN

NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
ARIZONA PUBLIC SERVICES	107	23	003

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.



Form 55-55 Instructions

Well Driller Report and Well Log

Introduction

These instructions are a guide to filling out Form DWR 55-55 (Rev. 06/15/2010), entitled "Well Driller Report and Well Log." Please review the instructions prior to completing the form in black or blue ink. Forms may be obtained at any Arizona Department of Water Resources (ADWR) office and at ADWR's web site, http://www.azwater.gov. For information about the form or these instructions, contact Groundwater Permitting & Wells at (602) 771-8500. There is no fee for filing this form.

When Form DWR 55-55 Must be Filed

Within 30 days after completion of the drilling, deepening or modification of a well, the licensed well driller who performed the work must file a Well Driller Report and Log with ADWR. Because the information in the report describes the well as it was actually constructed, and comes from the person who constructed the well, the information is very valuable to ADWR. For that reason, it is very important to fill out the report with the most accurate information possible.

Instructions for Filling out the Form

Well Registration and Permit Numbers

Fill in the registration number of the well and any ADWR permit number associated with the well in the upper right-hand corner of the first page. Also fill in the well registration number in the upper right-hand corner of all other pages so that the well information on those pages can be identified when the pages are separated during computer imaging.

Section 1 - Drilling Authorization

Fill in the name, address, DWR license number and telephone and fax numbers of the drilling firm filing the report.

Section 2 - Registry Information

Well Owner

Fill in the name, mailing address, telephone number and fax number (if available) of the well owner. If the well owner is a corporation, governmental unit or other entity, provide the name of a contact person.

Location of Well

Fill in the following information relating to the location of the well:

- The street address of the property where the well is located. For monitor wells or other wells associated with contaminant investigations or remedial projects, this will usually be the same as the facility address.
- The legal description of the well site. The legal description is the township, range, section, and in decreasing order, the quarters of that section so that the well location falls in a 10-acre block within that section. Normally, the legal description will be the same as that given in the original Notice of Intent to drill the well, but occasionally a more accurate description is discovered after the Notice is filed.
- The latitude and longitude (in degrees-minutes-seconds format) and land surface elevation at the well, and the method used to determine these data. **Please note this information is mandatory.** Use of a Global Positioning System (GPS) receiver is the only method accepted by the Department. The GPS unit should be adjusted to use the NAD-83 datum. Please indicate if the geographic coordinate datum used was NAD-83, and if not, which datum was used.
- The name of the county and the tax assessor's parcel identification number for the land where the well is located. This information can normally be taken from the original Notice of Intent to drill the well, and may also be obtained from the county tax assessor's office. Federal or State land will not have a parcel identification number.

Section 3 - Well Construction Details

Section 3 requires details on the construction of the well. Indicate the drill method by checking the appropriate box. If the drill method is not listed, check the "Other" box and describe the method. To the right of that, indicate the method of well development by checking the

appropriate box. Next, indicate the method of sealing at reduction points. If the method used is not listed, check "Other" and provide a brief explanation. Under *Well Driller Completion Report and Well Log* Form 55-55 Instructions (Rev. 06/2010) Page 2

Condition of Well, indicate whether the well was capped, or a pump was installed, when you left it. Then fill in the date when well construction started, and the date when well construction was completed.

Signature Block

The form must be signed and dated by the qualifying party of the drilling firm.

Section 4 - Well Construction Design (As Built)

Section 4 contains tables to fill in information on the existing borehole, the installed casing and the installed annular material. The tables are broken down by depth interval.

In the first set of boxes, fill in the depth of the boring and the depth of the completed well, as measured in feet below the land surface.

Under **Water Level Information** please indicate the static water level in the well, as measured in feet below the land surface, and the date and time the water level was measured. If the well is a flowing well, include the method by which the artesian flow is regulated.

In the **Borehole** table, fill in the diameter of the borehole in inches, and indicate the depth interval for each change in diameter. In the **Installed Casing** table, fill in the outer diameter of the casing in inches, check the appropriate boxes indicating the type of casing material and the type of perforations, and fill in the slot size of any perforations. Fill in the depth interval for each change in information. Please note that not every interval will be perforated. Check the "Blank or None" box for non-perforated depth intervals. If the type of casing material or perforations is not listed, describe the type in the appropriate box.

In the **Installed Annular Material** table, check the appropriate boxes indicating the type of annular material or filter pack installed at each depth interval. Fill in the size of the filter pack used. Provide the depth interval for each change in information. If the type of annular material is not listed, describe the material in the appropriate box.

Section 5 - Geologic Log of Well

Section 5 requires the geologic or lithologic log of the well. Describe the various units encountered during drilling. Provide as much description as possible. The log description must be broken down by depth intervals below ground surface, and every interval where groundwater, including perched groundwater, was encountered must be checked. If a consulting firm was involved with the well construction, the consultant's lithologic log may be submitted in lieu of completing Section 5.

Section 6 - Well Site Plan

In the boxes at the top of Section 6, fill in the name of the well owner and the county tax assessor's parcel identification number for the land where the well is located. Below that, provide a scale drawing of where the well was actually constructed on the parcel, illustrating the property boundaries, the well location and any structures on the property. The drawing must also show the location of any septic tank or sewer systems on the property or within 100 feet of the well, even if on neighboring property, and the distance between the well and the septic tank or sewer system. The drawing should closely match the drawing on the original Notice of Intent to drill the well, but the purpose of this drawing is to show where the well was actually drilled, especially if the location is different than originally planned. This information will be shared with the county.

Where to File Form

Completed forms may be mailed to ADWR at the following address:

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, AZ 85007

Completed forms may also be submitted to ADWR's main office at 1110 W. Washington St. Suite 310., Phoenix, AZ 85007.

The completed form must be legible and of good quality when received by ADWR so that it can be scanned into ADWR's permanent records.

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, AZ 85007
602-771-8500
azwater.gov

August 5, 2024

ARIZONA PUBLIC SERVICES
PO BOX 188 M/S 4458
JOSEPH CITY, AZ 86032

KATIE M. HOBBS
Governor

THOMAS BUSCHATZKE
Director

Registration No. 55- 931375
File Number: A(18-19) 25 BBB

Dear Well Applicant:

Enclosed is a copy of the Notice of Intention to Drill (NOI) a well which you or your driller recently filed with the Department of Water Resources. This letter is to inform you that the Department has approved the NOI and has mailed, or made available for download, a drilling authorization card to your designated well drilling contractor. The driller may not begin drilling until he/she has received the authorization, and must keep it in their possession at the well site during drilling. Although the issuance of this drill card authorizes you to drill the proposed well under state law, the drilling of the well may be subject to restrictions or regulations imposed by other entities.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, a new NOI must be filed and authorization from this Department received before proceeding with drilling. If the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report must be filed by your driller [as required by A.A.C. R12-15-816(F)].

If you change drillers, you must notify the Department of the new driller's identity on a Request to Change Well Drilling Contractor (form 55-71B). Please ensure that the new driller is licensed by the Department to drill the type of well you require. A new driller may not begin drilling until he/she receives a new drilling authorization card from the Department. Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

If you find it necessary to change the location of the proposed well(s), you may not proceed with drilling until you file an amended NOI with the Department. An amended drilling authorization card will then be issued to the well drilling contractor, which must be in their possession before drilling begins.

Arizona statute [A.R.S. § 45-600] requires registered well owners to file a Pump Installation Completion Report (form 55-56) with the Department within 30 days after the installation of pumping equipment, if authorized. A blank report is enclosed for your convenience. State statute also requires the driller to file a complete and accurate Well Drillers Report and Well Log (form 55-55) within 30 days after completion of drilling. A blank report form was provided to your driller with the drilling authorization card. You should insist and ensure that all of the required reports are accurately completed and timely filed with the Department.

Please be advised that Arizona statute [A.R.S. § 45-593(C)] requires a registered well owner to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information must be filed on a Request to Change Well Information form (form 55-71A). Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

Sincerely,

Groundwater Permitting and Wells Section

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Engineering and Permits Division
Phoenix, AZ 85007
602-771-8500

NOTICE TO WELL DRILLERS

This is a reminder that a valid drill card must be present for the drilling of each and every well constructed on a site. During the construction of a well, if an unexpected problem occurs; the hole collapses, the hole is dry, or a drill bit is lost and can't be recovered, or any number of other situations where the driller feels they need to move over and start another well. Please be aware drillers do not have the authority to start another well without first obtaining drilling authority for the new well. Please note the following statutes and regulations pertaining to well drilling and construction:

ARIZONA REVISED STATUTE (A.R.S.)

A.R.S. § 45-592.A.

A person may construct, replace or deepen a well in this state only pursuant to this article and section 45-834.01. The drilling of a well may not begin until all requirements of this article and section 45-834.01, as applicable, are met.

***

A.R.S. § 594.A.

The director shall adopt rules establishing construction standards for new wells and replacement wells, the deepening and abandonment of existing wells and the capping of open wells.

***

A.R.S. § 600.A

A well driller shall maintain a complete and accurate log of each well drilled.

ARIZONA ADMINISTRATIVE CODE (A.A.C.)

A.A.C. R12-15-803.A.
A person shall not drill or abandon a well, or cause a well to be drilled or abandoned, in a manner which is not in compliance with A.R.S. Title 45, Chapter 2, Article 10, and the rules adopted thereunder.

***

A.A.C. R12-15-810.A.
A well drilling contractor or single well licensee may commence drilling a well only if the well drilling contractor or licensee has possession of a drilling card at the well site issued by the Director in the name of the well drilling contractor or licensee, authorizing the drilling of the specific well in the specific location.

***

A.A.C. R12-15-816.F.
In the course of drilling a new well, the well may be abandoned without first filing a notice of intent to abandon and without an abandonment card.

*** THIS REQUIREMENT DOES NOT PERTAIN TO THE DRILLING OF MINERAL EXPLORATION, GEOTECHNICAL OR HEAT PUMP BOREHOLES**

Arizona Department of Water Resources
Groundwater Permitting and Wells Section
1802 W Jackson St. Box #79
Phoenix, AZ 85007
(602) 771-8527 . www.azwater.gov

Landowner Authorization to Drill or Abandon a Well on Landowner's Parcel

Landowner Authorization to Drill or Abandon a Well by a Third Party on Landowner's Parcel Pursuant to A.R.S. § 45-596 and A.A.C. R12-15-809

FILE NUMBER
A(18-19) 25 BBB
WELL REGISTRATION NUMBER
55 - 931375

The Arizona Department of Water Resources requires a well driller or well owner to obtain written permission from the owner of the land on which they intend to drill or abandon a well. Landowners, or their designated representative, must authorize the well to be drilled or abandoned with their signature on the Notice of Intent or on this form, to be attached to the Notice of Intent form.

PARCEL ADDRESS _____

COUNTY PARCEL ID 107 (BOOK) - 23 (MAP) - 003 (PARCEL) COUNTY NAVAJO

In accordance with A.R.S. § 45-496 and A.A.C. R12-15-809, I certify that:

☐ I am the owner of the parcel on which I am giving permission for a well to be ☐ drilled or ☐ abandoned.

☐ I am an authorized representative of the owner of the parcel on which I am giving permission for a well to be ☐ drilled or ☐ abandoned.

SIGNATURE

TYPE OR PRINT NAME OF LANDOWNER / RESPRESENTATIVE	TITLE
SIGNATURE	DATE SIGNED

WSP

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-80A

PROJECT:	APS POND EVAP DRILLING
LOGGED BY:	J. LOPEZ
DRILLER:	JOSE MUNGUIA
DRILLER FIRM:	YELLOW JACKET DRILLING
RIG I.D.:	138
RIG TYPE:	TSI-150T TRUCK MOUNTED
BORING TYPE:	8 INCH — BORING DIA.: 8 in
ORIENTATION:	VERTICAL . 90°
HAMMER TYPE:	—
HAMMER CALIBRATION–ENERGY TRANSFER RATIO:	—
START DATE:	08-06-24 — START TIME: 0920

PROJECT LOCATION:	APS CHOLLA PLANT, JOSEPH CITY
PROJECT FEATURE:	ARIZONA. POND EVAP
PROJECT #:	US0023513.3371
STATION/OFFSET:	
REFERENCE:	BAD ELE GPS BE-GPS-2300
COORDINATES:	34.926298° N
COORDINATE SYS:	110.278411° W
SURFACE ELEV. (FT):	~5045 AMSL
VERTICAL DATUM:	
COMPLETION DATE:	08-06-24 — COMPLETION TIME: 1330

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count (N1-60)	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	0								SC	0-5' BULK SAMPLE HAND AUGER	CLAYEY SAND (~15% FINES) FINE SAND, LO-M PI, LIGHT BROWN TO BROWN V. WEAKLY CEMENTED
	5								SC		NOTES INCREASE CLAY
	10									LITTLE COLORADO ALLUVIUM	
	11								SM	5'-15' ~8' RECOVERY	SILTY SAND (~15% FINES) FINE SAND, NO PI LIGHT BROWN. NO CEMENT
	15										
	20										

GROUNDWATER

DEPTH(ft)	HOUR	DATE

METHOD N/A

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

WSP

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-80A

PROJECT: APS POND EVAP DRILLING

PROJECT #: VS0023513.3371

PROJECT LOCATION: APS CHOLLA, JOSEPH CITY, AZ

PROJECT FEATURE: EVAPORATION PONDS

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	United Soil Classification	REMARKS	VISUAL CLASSIFICATION
	25								SC	15' to 25' ~7' RECOVERY	SC, CLAYEY SAND (20% f) W/ GRAVEL PRED f. SAND, M. PI, SA C GRAVEL, SOME PEDS
	27								SP-SM	WATER LEVEL @ 27' TO 28'	SAND W/ SILT (10% f) f-M SAND, NO PI WATER LEVEL ~27' TO 28'
	30										
	35										
	38										MOENKOPI - MOQUI
	40									NOTE: 40'-41' YELLOW GREEN SANDSTONE LAYER	HIGHLY WEATHERED MUDSTONE FINE GRAINED, MODERATELY INDURATED TO WEAKLY INDURATED, Io, REDDISH BROWN, MOIST ~15 TO 20% MOISTURE
											NOTE: 40 TO 41 YELLOW GREEN SANDSTONE, MODERATELY DECOMPOSED, WITH THIN GRAY MUDSTONE LAYERS
											41' TO 45' MUDSTONE
											S. WEATHERED, MODERATELY INDURATED, S. MOIST.
											TD @ 45' EOB @ 1330 08-06-24

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽	27.0		08-06-24
▼			
▼			
▼			

METHOD SONIC

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-80A

WELL DESIGN Page ~~4~~ of ~~4~~ 3 of 3

PROJECT: APS POND EVAP DRILLING

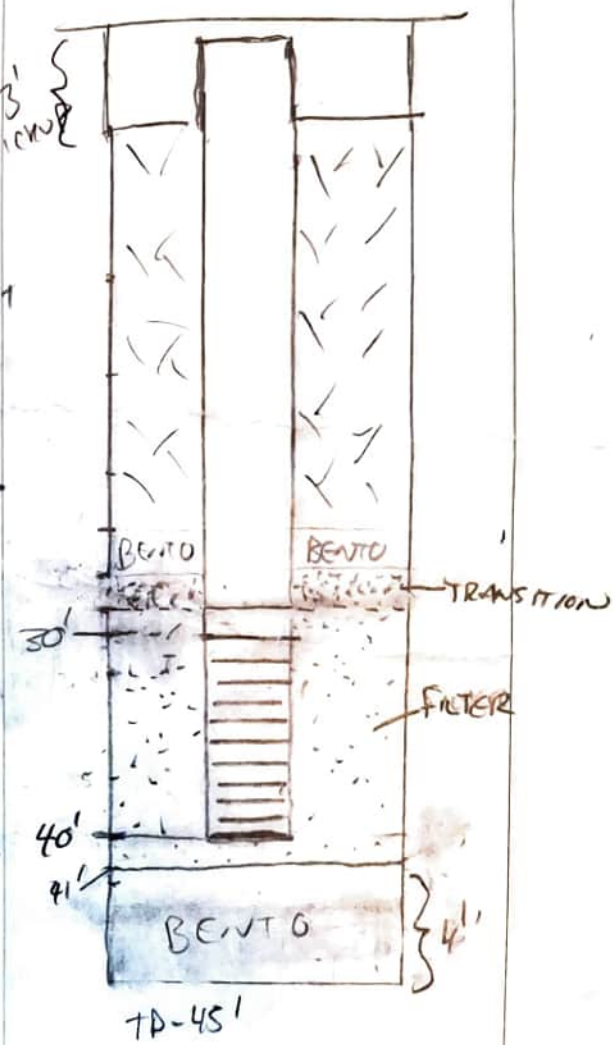
PROJECT #: US00023513.3371

PROJECT LOCATION: APS CHOLLA, JOSEPH CITY, AZ

PROJECT FEATURE: EVAPORATION PONDS

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
										08-06-24	WELL DESIGN AS-BUILT

1 x 10' SCREEN



GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽			
▼			
▽			
▼			

METHOD _____

SAMPLE TYPE

A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

ARIZONA DEPARTMENT OF WATER RESOURCES

Phoenix, Arizona 85007

DRILLING CARD
VARIANCE GRANTED

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-931377**

AUTHORIZED DRILLER: **YELLOW JACKET DRILLING SERVICES, LLC** LICENSE NO: **78**

NOTICE OF INTENT TO **DRILL A ENV - MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **ARIZONA PUBLIC SERVICES**

ADDRESS: **PO BOX 188 M/S 4458, JOSEPH CITY, AZ, 86032**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

NW 1/4 of the **NW** 1/4 of the **NW** 1/4 Section **25** Township **18 N** Range **19 E**

NO. OF WELLS IN THIS PROJECT: **1** ASSESSOR'S PARCEL NO: **107-23-003**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **8/5/2025**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named Driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the addres above to correct.

Variance(s) Granted To Driller:

- Thermoplastic Casing Surface Seal Variance in upper 20’ of well.
- Well Screen > 10' Variance – Monitor well’s screen may be screened greater than 10 feet above the highest seasonal static water level.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner’s behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

ARIZONA DEPARTMENT OF WATER RESOURCES
Electronic Filing - NOI Report

Phoenix, Arizona

NOI Type: Notice of Intent to Drill, Deepen, Modify a Monitor/Piezometer/Environmental Well
Well Type: ENV - MONITOR
Date Received at ADWR Website: 8/5/2024

Fee Paid: $150.00 Order Number: 15913

Well Registration Number: 55 - 931377
Number of Wells/Holes: 1 Drilling Authority Expires On: 8/5/2025

Driller's ADWR License Number: 78

Authorized Driller: YELLOW JACKET DRILLING SERVICES, LLC
ROC License Number Entered By Driller: 218848
Qualifying Party License Categories: A-4

Well Owner Name: ARIZONA PUBLIC SERVICES
Well Owner Address: PO BOX 188 M/S 4458
Well Owner City, State - Zip: JOSEPH CITY, AZ - 86032
Well Owner Phone: 602 723-2691

Date Construction is Scheduled to Begin: 6/8/2024

Book: 107 Map: 23 Parcel: 003

Is the Land Owner the same as the Well Owner?: Yes

Well Location: **NW** 1/4 of the **NW** 1/4 of the **NW** 1/4 Section **25** Township **18 N** Range **19 E**

AMA: JOSEPH CITY INA
County: NAVAJO
Contamination Site: NOT IN A REMEDIAL ACTION SITE

Depth: 55
Diameter: 8
Type of Casing of Proposed Well: PVC

Primary Water Use: **MONITORING**
Secondary Water Use(s): **N/A**

Is any portion of the land, on which the well is to be located, within 100 feet of a designated municipal provider's operating water distribution system as shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR. **No**

Will you be installing a dedicated pump ?: **Yes**

Will the installed pump have a pumping capacity of greater than 35 GPM, or will the well will be used to withdraw greater than 10 Acre Feet per year?: **No**

Variance(s) Granted To Driller:

- Thermoplastic Casing Surface Seal Variance in upper 20’ of well.
- Well Screen > 10' Variance – Monitor well’s screen may be screened greater than 10 feet above the highest seasonal static water level.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner’s behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider’s most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider’s most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

NOTICE

A.R.S. § 41-1030(B), (D), (E) and (F) provide as follows:

B. An agency shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule or state tribal gaming compact. A general grant of authority in statute does not constitute a basis for imposing a licensing requirement or condition unless a rule is made pursuant to that general grant of authority that specifically authorizes the requirement or condition.

D. This section may be enforced in a private civil action and relief may be awarded against the state. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against the state for a violation of this section.

E. A state employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the agency’s adopted personnel policy.

F. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, Arizona 85007
(602) 771-8527 | www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER **A(18-19) 25 BBB**
WELL REGISTRATION NUMBER **55 - 931377**
PERMIT NUMBER (IF ISSUED)

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
YELLOW JACKET DRILLING SERVICES, LLC	78
ADDRESS: 3922 E UNIVERSITY DR., SUITE 1	TELEPHONE NUMBER: 602-453-3252
CITY / STATE / ZIP: PHOENIX, AZ, 85034	FAX

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: ARIZONA PUBLIC SERVICES

MAILING ADDRESS: PO BOX 188 M/S 4458

CITY / STATE / ZIP: JOSEPH CITY, AZ, 86032

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 602 723-2691

FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.):

COUNTY: NAVAJO

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK	MAP	PARCEL
107	23	003

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
			1/4	1/4	1/4

LATITUDE			LONGITUDE		
° DEGREES	' MINUTES	"N SECONDS	° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development

CHECK ONE
☐ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☐ Capped ☐ Abandoned
☐ Pump Installed ☐ **Not Drilled**

Method of Sealing at Reduction Points

CHECK ONE
☐ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates

DATE WELL CONSTRUCTION STARTED

DATE WELL CONSTRUCTION COMPLETED

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY

DATE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931377

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
Feet Below Land Surface	Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
Feet Below Land Surface			☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931377

SECTION 5. GEOLOGIC LOG OF WELL

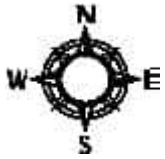
DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	**Description** Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931377

SECTION 6. WELL SITE PLAN			
NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
ARIZONA PUBLIC SERVICES	107	23	003

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.

						
						1" = _____ ft

Form 55-55 Instructions

Well Driller Report and Well Log

Introduction
These instructions are a guide to filling out Form DWR 55-55 (Rev. 06/15/2010), entitled "Well Driller Report and Well Log." Please review the instructions prior to completing the form in black or blue ink. Forms may be obtained at any Arizona Department of Water Resources (ADWR) office and at ADWR's web site, http://www.azwater.gov. For information about the form or these instructions, contact Groundwater Permitting & Wells at (602) 771-8500. There is no fee for filing this form.

When Form DWR 55-55 Must be Filed
Within 30 days after completion of the drilling, deepening or modification of a well, the licensed well driller who performed the work must file a Well Driller Report and Log with ADWR. Because the information in the report describes the well as it was actually constructed, and comes from the person who constructed the well, the information is very valuable to ADWR. For that reason, it is very important to fill out the report with the most accurate information possible.

Instructions for Filling out the Form

Well Registration and Permit Numbers
Fill in the registration number of the well and any ADWR permit number associated with the well in the upper right-hand corner of the first page. Also fill in the well registration number in the upper right-hand corner of all other pages so that the well information on those pages can be identified when the pages are separated during computer imaging.

Section 1 - Drilling Authorization
Fill in the name, address, DWR license number and telephone and fax numbers of the drilling firm filing the report.

Section 2 - Registry Information

Well Owner
Fill in the name, mailing address, telephone number and fax number (if available) of the well owner. If the well owner is a corporation, governmental unit or other entity, provide the name of a contact person.

Location of Well
Fill in the following information relating to the location of the well:

- The street address of the property where the well is located. For monitor wells or other wells associated with contaminant investigations or remedial projects, this will usually be the same as the facility address.
- The legal description of the well site. The legal description is the township, range, section, and in decreasing order, the quarters of that section so that the well location falls in a 10-acre block within that section. Normally, the legal description will be the same as that given in the original Notice of Intent to drill the well, but occasionally a more accurate description is discovered after the Notice is filed.
- The latitude and longitude (in degrees-minutes-seconds format) and land surface elevation at the well, and the method used to determine these data. **Please note this information is mandatory.** Use of a Global Positioning System (GPS) receiver is the only method accepted by the Department. The GPS unit should be adjusted to use the NAD-83 datum. Please indicate if the geographic coordinate datum used was NAD-83, and if not, which datum was used.
- The name of the county and the tax assessor's parcel identification number for the land where the well is located. This information can normally be taken from the original Notice of Intent to drill the well, and may also be obtained from the county tax assessor's office. Federal or State land will not have a parcel identification number.

Section 3 - Well Construction Details
Section 3 requires details on the construction of the well. Indicate the drill method by checking the appropriate box. If the drill method is not listed, check the "Other" box and describe the method. To the right of that, indicate the method of well development by checking the

appropriate box. Next, indicate the method of sealing at reduction points. If the method used is not listed, check "Other" and provide a brief explanation. Under *Well Driller Completion Report and Well Log* Form 55-55 Instructions (Rev. 06/2010) Page 2

Condition of Well, indicate whether the well was capped, or a pump was installed, when you left it. Then fill in the date when well construction started, and the date when well construction was completed.

Signature Block

The form must be signed and dated by the qualifying party of the drilling firm.

Section 4 - Well Construction Design (As Built)

Section 4 contains tables to fill in information on the existing borehole, the installed casing and the installed annular material. The tables are broken down by depth interval.

In the first set of boxes, fill in the depth of the boring and the depth of the completed well, as measured in feet below the land surface.

Under **Water Level Information** please indicate the static water level in the well, as measured in feet below the land surface, and the date and time the water level was measured. If the well is a flowing well, include the method by which the artesian flow is regulated.

In the **Borehole** table, fill in the diameter of the borehole in inches, and indicate the depth interval for each change in diameter. In the **Installed Casing** table, fill in the outer diameter of the casing in inches, check the appropriate boxes indicating the type of casing material and the type of perforations, and fill in the slot size of any perforations. Fill in the depth interval for each change in information. Please note that not every interval will be perforated. Check the "Blank or None" box for non-perforated depth intervals. If the type of casing material or perforations is not listed, describe the type in the appropriate box.

In the **Installed Annular Material** table, check the appropriate boxes indicating the type of annular material or filter pack installed at each depth interval. Fill in the size of the filter pack used. Provide the depth interval for each change in information. If the type of annular material is not listed, describe the material in the appropriate box.

Section 5 - Geologic Log of Well

Section 5 requires the geologic or lithologic log of the well. Describe the various units encountered during drilling. Provide as much description as possible. The log description must be broken down by depth intervals below ground surface, and every interval where groundwater, including perched groundwater, was encountered must be checked. If a consulting firm was involved with the well construction, the consultant's lithologic log may be submitted in lieu of completing Section 5.

Section 6 - Well Site Plan

In the boxes at the top of Section 6, fill in the name of the well owner and the county tax assessor's parcel identification number for the land where the well is located. Below that, provide a scale drawing of where the well was actually constructed on the parcel, illustrating the property boundaries, the well location and any structures on the property. The drawing must also show the location of any septic tank or sewer systems on the property or within 100 feet of the well, even if on neighboring property, and the distance between the well and the septic tank or sewer system. The drawing should closely match the drawing on the original Notice of Intent to drill the well, but the purpose of this drawing is to show where the well was actually drilled, especially if the location is different than originally planned. This information will be shared with the county.

Where to File Form

Completed forms may be mailed to ADWR at the following address:

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, AZ 85007

Completed forms may also be submitted to ADWR's main office at 1110 W. Washington St. Suite 310., Phoenix, AZ 85007.

The completed form must be legible and of good quality when received by ADWR so that it can be scanned into ADWR's permanent records.

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, AZ 85007
602-771-8500
azwater.gov

August 5, 2024

ARIZONA PUBLIC SERVICES
PO BOX 188 M/S 4458
JOSEPH CITY, AZ 86032

KATIE M. HOBBS
Governor

THOMAS BUSCHATZKE
Director

Registration No. 55- 931377
File Number: A(18-19) 25 BBB

Dear Well Applicant:

Enclosed is a copy of the Notice of Intention to Drill (NOI) a well which you or your driller recently filed with the Department of Water Resources. This letter is to inform you that the Department has approved the NOI and has mailed, or made available for download, a drilling authorization card to your designated well drilling contractor. The driller may not begin drilling until he/she has received the authorization, and must keep it in their possession at the well site during drilling. Although the issuance of this drill card authorizes you to drill the proposed well under state law, the drilling of the well may be subject to restrictions or regulations imposed by other entities.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, a new NOI must be filed and authorization from this Department received before proceeding with drilling. If the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report must be filed by your driller [as required by A.A.C. R12-15-816(F)].

If you change drillers, you must notify the Department of the new driller's identity on a Request to Change Well Drilling Contractor (form 55-71B). Please ensure that the new driller is licensed by the Department to drill the type of well you require. A new driller may not begin drilling until he/she receives a new drilling authorization card from the Department. Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

If you find it necessary to change the location of the proposed well(s), you may not proceed with drilling until you file an amended NOI with the Department. An amended drilling authorization card will then be issued to the well drilling contractor, which must be in their possession before drilling begins.

Arizona statute [A.R.S. § 45-600] requires registered well owners to file a Pump Installation Completion Report (form 55-56) with the Department within 30 days after the installation of pumping equipment, if authorized. A blank report is enclosed for your convenience. State statute also requires the driller to file a complete and accurate Well Drillers Report and Well Log (form 55-55) within 30 days after completion of drilling. A blank report form was provided to your driller with the drilling authorization card. You should insist and ensure that all of the required reports are accurately completed and timely filed with the Department.

Please be advised that Arizona statute [A.R.S. § 45-593(C)] requires a registered well owner to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information must be filed on a Request to Change Well Information form (form 55-71A). Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

Sincerely,

Groundwater Permitting and Wells Section

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Engineering and Permits Division
Phoenix, AZ 85007
602-771-8500

NOTICE TO WELL DRILLERS

This is a reminder that a valid drill card must be present for the drilling of each and every well constructed on a site. During the construction of a well, if an unexpected problem occurs; the hole collapses, the hole is dry, or a drill bit is lost and can't be recovered, or any number of other situations where the driller feels they need to move over and start another well. Please be aware drillers do not have the authority to start another well without first obtaining drilling authority for the new well. Please note the following statutes and regulations pertaining to well drilling and construction:

ARIZONA REVISED STATUTE (A.R.S.)

A.R.S. § 45-592.A.

A person may construct, replace or deepen a well in this state only pursuant to this article and section 45-834.01. The drilling of a well may not begin until all requirements of this article and section 45-834.01, as applicable, are met.

****

A.R.S. § 594.A.

The director shall adopt rules establishing construction standards for new wells and replacement wells, the deepening and abandonment of existing wells and the capping of open wells.

****

A.R.S. § 600.A

A well driller shall maintain a complete and accurate log of each well drilled.

ARIZONA ADMINISTRATIVE CODE (A.A.C.)

A.A.C. R12-15-803.A.
A person shall not drill or abandon a well, or cause a well to be drilled or abandoned, in a manner which is not in compliance with A.R.S. Title 45, Chapter 2, Article 10, and the rules adopted thereunder.

****

A.A.C. R12-15-810.A.
A well drilling contractor or single well licensee may commence drilling a well only if the well drilling contractor or licensee has possession of a drilling card at the well site issued by the Director in the name of the well drilling contractor or licensee, authorizing the drilling of the specific well in the specific location.

****

A.A.C. R12-15-816.F.
In the course of drilling a new well, the well may be abandoned without first filing a notice of intent to abandon and without an abandonment card.

*** THIS REQUIREMENT DOES NOT PERTAIN TO THE DRILLING OF MINERAL EXPLORATION, GEOTECHNICAL OR HEAT PUMP BOREHOLES**

Arizona Department of Water Resources
Groundwater Permitting and Wells Section
1802 W Jackson St. Box #79
Phoenix, AZ 85007
(602) 771-8527 ▪ www.azwater.gov

Landowner Authorization to Drill or Abandon a Well on Landowner's Parcel

Landowner Authorization to Drill or Abandon a Well by a Third Party on Landowner's Parcel Pursuant to A.R.S. § 45-596 and A.A.C. R12-15-809

FILE NUMBER **A(18-19) 25 BBB**
WELL REGISTRATION NUMBER 55 - 931377

The Arizona Department of Water Resources requires a well driller or well owner to obtain written permission from the owner of the land on which they intend to drill or abandon a well. Landowners, or their designated representative, must authorize the well to be drilled or abandoned with their signature on the Notice of Intent or on this form, to be attached to the Notice of Intent form.

PARCEL ADDRESS _____

COUNTY PARCEL ID 107 (BOOK) - 23 (MAP) - 003 (PARCEL) COUNTY NAVAJO

In accordance with A.R.S. § 45-496 and A.A.C. R12-15-809, I certify that:

¨ I am the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

¨ I am an authorized representative of the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

SIGNATURE	
TYPE OR PRINT NAME OF LANDOWNER / RESPRESENTATIVE	TITLE
SIGNATURE	DATE SIGNED

WSP

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-81A

PROJECT:	APS POND EVAP DRILLING	PROJECT LOCATION:	APS CHOLLA JOSEPH CITY, AZ
LOGGED BY:	J. LOPEZ	PROJECT FEATURE:	EVAP POND
DRILLER:	J. MUNGUIA	WOOD PROJECT #:	US00225131 2317
DRILLER FIRM:	YELLOW JACKET DRILLING	STATION/OFFSET:	
RIG I.D.:	138	REFERENCE:	BE-GPS-2300
RIG TYPE:	TSI-150T TRUCK MOUNTED	COORDINATES:	34.925003°N 110.276317°W
BORING TYPE:	SONIC BORING DIA.: 8"	COORDINATE SYS:	BE-GPS-2300
ORIENTATION:	VERTICAL	SURFACE ELEV. (FT):	~5045
HAMMER TYPE:	—	VERTICAL DATUM:	
HAMMER CALIBRATION–ENERGY TRANSFER RATIO:	—	COMPLETION DATE:	08-10-24 COMPLETION TIME: 1310
START DATE:	08-10-24 START TIME: 1138		WELL INSTALL COMPLETION: 08-11-24
			C0730

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count (N1-60)	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	0										FILL: WELL GRADED GRAVEL W/ SAND & SILT
	2								SW-SC	S. MOIST	SILTY CLAYEY SAND: PRED F SANDS, LT BROWN, LO-M PI (~15%-20% F)
	5								SW-SC		
	7								SP-SC	S. MOIST	SILTY SAND W/ CLAY: PRED F. SAND, NO LO PI, LT BROWN ~15% F
	9								SM		
	10									S. MOIST	SILTY SAND: F-M SA SANDS NO PI, LT BROWN TO BROWN
	15										
	19								SW-SC		SILTY CLAYEY SAND: 20-30% F PRED F. SAND, M-HI PI BROWN
	20										

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽			
▼			
▽			
▼			

METHOD N/A

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-81

PROJECT: APS CHOLLA POND EVAP
PROJECT LOCATION: APS CHOLLA JOSEPH CITY, AZ
~~WSP~~ PROJECT #: VS00723513.3317
PROJECT FEATURE: EVAP POND

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	21								SM	S. MOIST	SILTY SAND W/ GRAVEL PRED f. SAND W/ f-C SR GRAVEL
	25										//
	27								SM-SC	MOIST TO WET GW @ 27'	SILTY CLAYEY SAND (~10-20% f) f-M SA SANDS, NO-LO PI BRWN. GROUNDWATER @ 27'
	30										
	31								SM-SC	WET	CLAY INCREASES ~ 20-30% MED PI BRWN
	35								SM-SC	VERY WET @ 37'	CLAY DECREASES (<15% f) f-M SA SANDS NO - LO PI
	39								SC	WET TO MOIST	CLAY INCREASES (~15%-25%) BRWN M-PI
	41								SM-SC	41'-43'	CLAY DECREASES (<15% f) LO - NO PI f-M SA SANDS
	43								SC	@ 43.0'	CLAY INCREASES (~15-20%) M-HI PI

GROUNDWATER

DEPTH(ft)	HOUR	DATE
27.0		08-10-24

METHOD _____

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-81

PROJECT: APS CHOLLA EVAP POND DRILLING
PROJECT LOCATION: APS CHOLLA JOSEPH CITY, AZ
~~WO~~ PROJECT #: 60023513.3371
PROJECT FEATURE: EVAPORATION POND

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	45								SM-SC	MOIST TO WET	CLAY DECREASES (10-15% ±) f-M SA SANDS
	47							24±	SC	MOIST TO WET	CLAY INCREASES (20-40% ±) REDDISH BROWN. DECOMPOSED MOQUI?
	49								MOQUI	MOIST TO S. MOIST	MOQUI?: MUDSTONE W/ THIN SANDY LAYERS, THIN SILTY SAND LAMINAE, HIGHLY DECOMPOSED. BROWN TO REDDISH BROWN
	50										
	55										EOB TD @ 55.0' ON 08-10-24 - 1310

GROUNDWATER

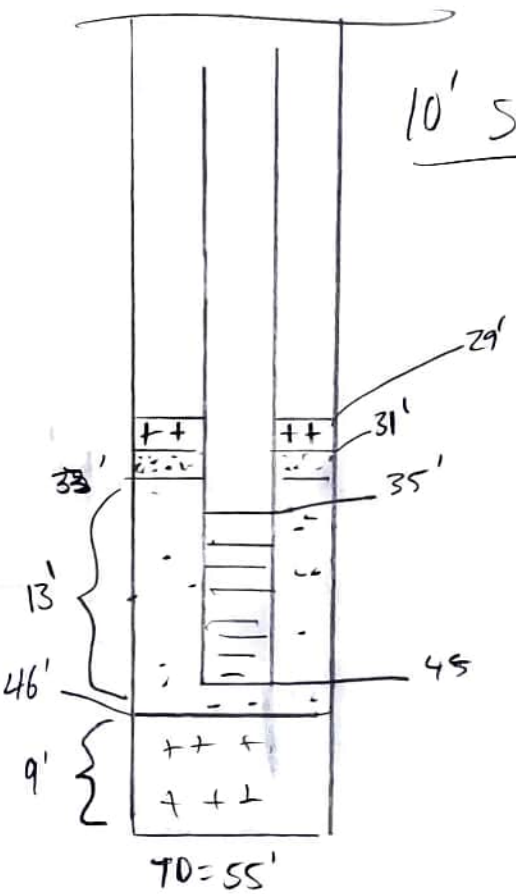
DEPTH(ft)	HOUR	DATE

METHOD _____

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

08-11-24
@ 0730

MW-81A



10' SCREEN 35.0' – 45.0'

0 – 29' – GROUT

29' – 31' – CHIPS

31' – 33' TRANSITION

33' – 46' FILTER

46' – 55' CHIPS

ARIZONA DEPARTMENT OF WATER RESOURCES

Phoenix, Arizona 85007

DRILLING CARD
VARIANCE GRANTED

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-931378**

AUTHORIZED DRILLER: **YELLOW JACKET DRILLING SERVICES, LLC** LICENSE NO: **78**

NOTICE OF INTENT TO **DRILL A ENV - MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **ARIZONA PUBLIC SERVICES**

ADDRESS: **PO BOX 188 M/S 4458, JOSEPH CITY, AZ, 86032**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SE 1/4 of the **SE** 1/4 of the **SE** 1/4 Section **25** Township **18 N** Range **19 E**

NO. OF WELLS IN THIS PROJECT: **1** ASSESSOR'S PARCEL NO: **107-23-003**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **8/5/2025**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named Driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the addres above to correct.

Variance(s) Granted To Driller:

- Shortened Surface Seal Variance – Surface seal casing may be less than 20 feet, but not be less than 5 feet.
- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

ARIZONA DEPARTMENT OF WATER RESOURCES
Electronic Filing - NOI Report

Phoenix, Arizona

NOI Type: Notice of Intent to Drill, Deepen, Modify a Monitor/Piezometer/Environmental Well
Well Type: ENV - MONITOR
Date Received at ADWR Website: 8/5/2024

Fee Paid: $150.00 Order Number: 15914

Well Registration Number: 55 - 931378
Number of Wells/Holes: 1 Drilling Authority Expires On: 8/5/2025

Driller's ADWR License Number: 78

Authorized Driller: YELLOW JACKET DRILLING SERVICES, LLC
ROC License Number Entered By Driller: 218848
Qualifying Party License Categories: A-4

Well Owner Name: ARIZONA PUBLIC SERVICES
Well Owner Address: PO BOX 188 M/S 4458
Well Owner City, State - Zip: JOSEPH CITY, AZ - 86032
Well Owner Phone: 602 723-2691

Date Construction is Scheduled to Begin: 6/8/2024

Book: 107 Map: 23 Parcel: 003

Is the Land Owner the same as the Well Owner?: Yes

Well Location: **SE** 1/4 of the **SE** 1/4 of the **SE** 1/4 Section **25** Township **18 N** Range **19 E**

AMA: JOSEPH CITY INA
County: NAVAJO
Contamination Site: NOT IN A REMEDIAL ACTION SITE

Depth: 55
Diameter: 8
Type of Casing of Proposed Well: PVC

Primary Water Use: **MONITORING**
Secondary Water Use(s): **N/A**

Is any portion of the land, on which the well is to be located, within 100 feet of a designated municipal provider's operating water distribution system as shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR. **No**

Will you be installing a dedicated pump ?: **Yes**

Will the installed pump have a pumping capacity of greater than 35 GPM, or will the well will be used to withdraw greater than 10 Acre Feet per year?: **No**

Variance(s) Granted To Driller:

- Shortened Surface Seal Variance – Surface seal casing may be less than 20 feet, but not be less than 5 feet.
- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

NOTICE

A.R.S. § 41-1030(B), (D), (E) and (F) provide as follows:

B. An agency shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule or state tribal gaming compact. A general grant of authority in statute does not constitute a basis for imposing a licensing requirement or condition unless a rule is made pursuant to that general grant of authority that specifically authorizes the requirement or condition.

D. This section may be enforced in a private civil action and relief may be awarded against the state. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against the state for a violation of this section.

E. A state employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the agency's adopted personnel policy.

F. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, Arizona 85007
(602) 771-8527 | www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER **A(18-19) 25 DDD**
WELL REGISTRATION NUMBER **55 - 931378**
PERMIT NUMBER (IF ISSUED)

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
YELLOW JACKET DRILLING SERVICES, LLC	78
ADDRESS: 3922 E UNIVERSITY DR., SUITE 1	TELEPHONE NUMBER: 602-453-3252
CITY / STATE / ZIP: PHOENIX, AZ, 85034	FAX

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: ARIZONA PUBLIC SERVICES

MAILING ADDRESS: PO BOX 188 M/S 4458

CITY / STATE / ZIP: JOSEPH CITY, AZ, 86032

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 602 723-2691

FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.):

COUNTY: NAVAJO

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK	MAP	PARCEL
107	23	003

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
			1/4	1/4	1/4

LATITUDE			LONGITUDE		
° DEGREES	' MINUTES	"N SECONDS	° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development

CHECK ONE
☐ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☐ Capped ☐ Abandoned
☐ Pump Installed ☐ **Not Drilled**

Method of Sealing at Reduction Points

CHECK ONE
☐ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates

DATE WELL CONSTRUCTION STARTED

DATE WELL CONSTRUCTION COMPLETED

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY

DATE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931378

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
Feet Below Land Surface	Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
Feet Below Land Surface			☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931378

SECTION 5. GEOLOGIC LOG OF WELL

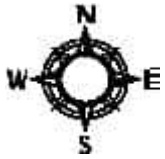
DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	**Description** Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931378

SECTION 6. WELL SITE PLAN			
NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
ARIZONA PUBLIC SERVICES	107	23	003

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.

						
						1" = _____ ft

Form 55-55 Instructions

Well Driller Report and Well Log

Introduction
These instructions are a guide to filling out Form DWR 55-55 (Rev. 06/15/2010), entitled "Well Driller Report and Well Log." Please review the instructions prior to completing the form in black or blue ink. Forms may be obtained at any Arizona Department of Water Resources (ADWR) office and at ADWR's web site, http://www.azwater.gov. For information about the form or these instructions, contact Groundwater Permitting & Wells at (602) 771-8500. There is no fee for filing this form.

When Form DWR 55-55 Must be Filed
Within 30 days after completion of the drilling, deepening or modification of a well, the licensed well driller who performed the work must file a Well Driller Report and Log with ADWR. Because the information in the report describes the well as it was actually constructed, and comes from the person who constructed the well, the information is very valuable to ADWR. For that reason, it is very important to fill out the report with the most accurate information possible.

Instructions for Filling out the Form

Well Registration and Permit Numbers
Fill in the registration number of the well and any ADWR permit number associated with the well in the upper right-hand corner of the first page. Also fill in the well registration number in the upper right-hand corner of all other pages so that the well information on those pages can be identified when the pages are separated during computer imaging.

Section 1 - Drilling Authorization
Fill in the name, address, DWR license number and telephone and fax numbers of the drilling firm filing the report.

Section 2 - Registry Information

Well Owner
Fill in the name, mailing address, telephone number and fax number (if available) of the well owner. If the well owner is a corporation, governmental unit or other entity, provide the name of a contact person.

Location of Well
Fill in the following information relating to the location of the well:

- The street address of the property where the well is located. For monitor wells or other wells associated with contaminant investigations or remedial projects, this will usually be the same as the facility address.
- The legal description of the well site. The legal description is the township, range, section, and in decreasing order, the quarters of that section so that the well location falls in a 10-acre block within that section. Normally, the legal description will be the same as that given in the original Notice of Intent to drill the well, but occasionally a more accurate description is discovered after the Notice is filed.
- The latitude and longitude (in degrees-minutes-seconds format) and land surface elevation at the well, and the method used to determine these data. **Please note this information is mandatory.** Use of a Global Positioning System (GPS) receiver is the only method accepted by the Department. The GPS unit should be adjusted to use the NAD-83 datum. Please indicate if the geographic coordinate datum used was NAD-83, and if not, which datum was used.
- The name of the county and the tax assessor's parcel identification number for the land where the well is located. This information can normally be taken from the original Notice of Intent to drill the well, and may also be obtained from the county tax assessor's office. Federal or State land will not have a parcel identification number.

Section 3 - Well Construction Details
Section 3 requires details on the construction of the well. Indicate the drill method by checking the appropriate box. If the drill method is not listed, check the "Other" box and describe the method. To the right of that, indicate the method of well development by checking the

appropriate box. Next, indicate the method of sealing at reduction points. If the method used is not listed, check "Other" and provide a brief explanation. Under *Well Driller Completion Report and Well Log* Form 55-55 Instructions (Rev. 06/2010) Page 2

Condition of Well, indicate whether the well was capped, or a pump was installed, when you left it. Then fill in the date when well construction started, and the date when well construction was completed.

Signature Block

The form must be signed and dated by the qualifying party of the drilling firm.

Section 4 - Well Construction Design (As Built)

Section 4 contains tables to fill in information on the existing borehole, the installed casing and the installed annular material. The tables are broken down by depth interval.

In the first set of boxes, fill in the depth of the boring and the depth of the completed well, as measured in feet below the land surface.

Under **Water Level Information** please indicate the static water level in the well, as measured in feet below the land surface, and the date and time the water level was measured. If the well is a flowing well, include the method by which the artesian flow is regulated.

In the **Borehole** table, fill in the diameter of the borehole in inches, and indicate the depth interval for each change in diameter. In the **Installed Casing** table, fill in the outer diameter of the casing in inches, check the appropriate boxes indicating the type of casing material and the type of perforations, and fill in the slot size of any perforations. Fill in the depth interval for each change in information. Please note that not every interval will be perforated. Check the "Blank or None" box for non-perforated depth intervals. If the type of casing material or perforations is not listed, describe the type in the appropriate box.

In the **Installed Annular Material** table, check the appropriate boxes indicating the type of annular material or filter pack installed at each depth interval. Fill in the size of the filter pack used. Provide the depth interval for each change in information. If the type of annular material is not listed, describe the material in the appropriate box.

Section 5 - Geologic Log of Well

Section 5 requires the geologic or lithologic log of the well. Describe the various units encountered during drilling. Provide as much description as possible. The log description must be broken down by depth intervals below ground surface, and every interval where groundwater, including perched groundwater, was encountered must be checked. If a consulting firm was involved with the well construction, the consultant's lithologic log may be submitted in lieu of completing Section 5.

Section 6 - Well Site Plan

In the boxes at the top of Section 6, fill in the name of the well owner and the county tax assessor's parcel identification number for the land where the well is located. Below that, provide a scale drawing of where the well was actually constructed on the parcel, illustrating the property boundaries, the well location and any structures on the property. The drawing must also show the location of any septic tank or sewer systems on the property or within 100 feet of the well, even if on neighboring property, and the distance between the well and the septic tank or sewer system. The drawing should closely match the drawing on the original Notice of Intent to drill the well, but the purpose of this drawing is to show where the well was actually drilled, especially if the location is different than originally planned. This information will be shared with the county.

Where to File Form

Completed forms may be mailed to ADWR at the following address:

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, AZ 85007

Completed forms may also be submitted to ADWR's main office at 1110 W. Washington St. Suite 310., Phoenix, AZ 85007.

The completed form must be legible and of good quality when received by ADWR so that it can be scanned into ADWR's permanent records.

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, AZ 85007
602-771-8500
azwater.gov

August 5, 2024

ARIZONA PUBLIC SERVICES
PO BOX 188 M/S 4458
JOSEPH CITY, AZ 86032

KATIE M. HOBBS
Governor

THOMAS BUSCHATZKE
Director

Registration No. 55- 931378
File Number: A(18-19) 25 DDD

Dear Well Applicant:

Enclosed is a copy of the Notice of Intention to Drill (NOI) a well which you or your driller recently filed with the Department of Water Resources. This letter is to inform you that the Department has approved the NOI and has mailed, or made available for download, a drilling authorization card to your designated well drilling contractor. The driller may not begin drilling until he/she has received the authorization, and must keep it in their possession at the well site during drilling. Although the issuance of this drill card authorizes you to drill the proposed well under state law, the drilling of the well may be subject to restrictions or regulations imposed by other entities.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, a new NOI must be filed and authorization from this Department received before proceeding with drilling. If the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report must be filed by your driller [as required by A.A.C. R12-15-816(F)].

If you change drillers, you must notify the Department of the new driller's identity on a Request to Change Well Drilling Contractor (form 55-71B). Please ensure that the new driller is licensed by the Department to drill the type of well you require. A new driller may not begin drilling until he/she receives a new drilling authorization card from the Department. Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

If you find it necessary to change the location of the proposed well(s), you may not proceed with drilling until you file an amended NOI with the Department. An amended drilling authorization card will then be issued to the well drilling contractor, which must be in their possession before drilling begins.

Arizona statute [A.R.S. § 45-600] requires registered well owners to file a Pump Installation Completion Report (form 55-56) with the Department within 30 days after the installation of pumping equipment, if authorized. A blank report is enclosed for your convenience. State statute also requires the driller to file a complete and accurate Well Drillers Report and Well Log (form 55-55) within 30 days after completion of drilling. A blank report form was provided to your driller with the drilling authorization card. You should insist and ensure that all of the required reports are accurately completed and timely filed with the Department.

Please be advised that Arizona statute [A.R.S. § 45-593(C)] requires a registered well owner to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information must be filed on a Request to Change Well Information form (form 55-71A). Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

Sincerely,

Groundwater Permitting and Wells Section

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Engineering and Permits Division
Phoenix, AZ 85007
602-771-8500

NOTICE TO WELL DRILLERS

This is a reminder that a valid drill card must be present for the drilling of each and every well constructed on a site. During the construction of a well, if an unexpected problem occurs; the hole collapses, the hole is dry, or a drill bit is lost and can't be recovered, or any number of other situations where the driller feels they need to move over and start another well. Please be aware drillers do not have the authority to start another well without first obtaining drilling authority for the new well. Please note the following statutes and regulations pertaining to well drilling and construction:

ARIZONA REVISED STATUTE (A.R.S.)

A.R.S. § 45-592.A.

A person may construct, replace or deepen a well in this state only pursuant to this article and section 45-834.01. The drilling of a well may not begin until all requirements of this article and section 45-834.01, as applicable, are met.

****

A.R.S. § 594.A.

The director shall adopt rules establishing construction standards for new wells and replacement wells, the deepening and abandonment of existing wells and the capping of open wells.

****

A.R.S. § 600.A

A well driller shall maintain a complete and accurate log of each well drilled.

ARIZONA ADMINISTRATIVE CODE (A.A.C.)

A.A.C. R12-15-803.A.
A person shall not drill or abandon a well, or cause a well to be drilled or abandoned, in a manner which is not in compliance with A.R.S. Title 45, Chapter 2, Article 10, and the rules adopted thereunder.

****

A.A.C. R12-15-810.A.
A well drilling contractor or single well licensee may commence drilling a well only if the well drilling contractor or licensee has possession of a drilling card at the well site issued by the Director in the name of the well drilling contractor or licensee, authorizing the drilling of the specific well in the specific location.

****

A.A.C. R12-15-816.F.
In the course of drilling a new well, the well may be abandoned without first filing a notice of intent to abandon and without an abandonment card.

*** THIS REQUIREMENT DOES NOT PERTAIN TO THE DRILLING OF MINERAL EXPLORATION, GEOTECHNICAL OR HEAT PUMP BOREHOLES**

Arizona Department of Water Resources
Groundwater Permitting and Wells Section
1802 W Jackson St. Box #79
Phoenix, AZ 85007
(602) 771-8527 ▪ www.azwater.gov

Landowner Authorization to Drill or Abandon a Well on Landowner's Parcel

Landowner Authorization to Drill or Abandon a Well by a Third Party on Landowner's Parcel Pursuant to A.R.S. § 45-596 and A.A.C. R12-15-809

FILE NUMBER **A(18-19) 25 DDD**
WELL REGISTRATION NUMBER 55 - 931378

The Arizona Department of Water Resources requires a well driller or well owner to obtain written permission from the owner of the land on which they intend to drill or abandon a well. Landowners, or their designated representative, must authorize the well to be drilled or abandoned with their signature on the Notice of Intent or on this form, to be attached to the Notice of Intent form.

PARCEL ADDRESS _____

COUNTY PARCEL ID 107 (BOOK) - 23 (MAP) - 003 (PARCEL) COUNTY NAVAJO

In accordance with A.R.S. § 45-496 and A.A.C. R12-15-809, I certify that:

¨ I am the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

¨ I am an authorized representative of the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

SIGNATURE	
TYPE OR PRINT NAME OF LANDOWNER / RESPRESENTATIVE	TITLE
SIGNATURE	DATE SIGNED

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-82A

PROJECT:	APS POND EVAP DRILLING	PROJECT LOCATION:	APS CHOLLA JOSEPH CITY, AZ
LOGGED BY:	J. LOPEZ	PROJECT FEATURE:	EVAP POND
DRILLER:	J. MUNGUIA	WOOD PROJECT #:	VS002356.3317
DRILLER FIRM:	YELLOW JACKET DRILLING	STATION/OFFSET:	
RIG I.D.:	138	REFERENCE:	
RIG TYPE:	TSI-150T TRUCK MOUNTED	COORDINATES:	34.924907°N, 110.272157°W
BORING TYPE:	SONIC BORING DIA.: 8"	COORDINATE SYS:	BE-GPS-2300
ORIENTATION:	VERTICAL	SURFACE ELEV. (FT):	~5047
HAMMER TYPE:	—	VERTICAL DATUM:	
HAMMER CALIBRATION-ENERGY TRANSFER RATIO:	—	COMPLETION DATE:	08-09-24 COMPLETION TIME: 1435
START DATE:	08-05-24 START TIME: 1300		WELL INSTALLATION 08-10-24 @ 0950

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count (N1-60)	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	0									0'-5' HAND AUGER	FILL MATERIAL: SM SILTY SAND, PRED. F SANDS
									SM-SC		SILTY CLAYEY SAND: 15% F PRED F. SAND, LO-MPI BROWN, S. MOIST
	5										NOTE: @ 5' - 15.0' W. CEMENTED S. MOIST
	10										
	15								@15' SC	MOIST	CLAYEY SAND: INCREASE FINES, 15% - 25% F, PRED F. SAND. W. CEMENTED MOIST, M-HI PI
	20										NOTE: @ 19' M. CEMENTED

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽			
▼			
▽			
▼			

METHOD N/A

SAMPLE TYPE
A - Drill cuttings
S - 2" O.D. 1.38" I.D. tube sample
U - 3" O.D. 2.42" I.D. tube sample
T - Thin Walled Shelby tube sample
NR - No Recovery

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-82A

PROJECT: APS CHOLLA EVAP POND
PROJECT LOCATION: APS CHOLLA JOSEPH CITY, AZ
PROJECT #: US00235513.3371
PROJECT FEATURE: EVAP PONDS

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	21								SP-SM	S. MOIST TO MOIST	SILTY SAND W/ CLAY f-M SA SANDS, BROWN, ~ 15% - 20% f, NO-LO PI
	24				24'				SM-SC	S. MOIST TO MOIST 25.0' WET GW	SILTY CLAYEY SAND: 15-25% f PRED f SAND, M PI, BROWN NOTE @ 25' DECREASE FINES TO 10-15% f. SANDS INCREASED, f-M, SA SANDS, POORLY GRADED, REDDISH BROWN LO-M PI WET THROUGHOUT, GW FROM 25' — 33'
	25										
	30										
	33								MOQUI	33'-35' S. MOIST-MOIST 35'-38' S. MOIST TO DRY	MOQUI: ALTERNATING BEDS OF MUDSTONE AND SILTSTONES, SANDSTONES W/SHALE. THIN SILTY SANDSTONE LAYERS W/ THIN SHALES, MODERATELY TO HIGHLY DECOMPOSED PRED REDDISH BROWN MUDSTONES WITH THIN YELLOW-YELLOW GREEN SANDSTONES (< 6 INCH THICKNESS) WITH INCH THIN SANDY SHALE LAYERS (GRAYISH YELLOW) EOB TD @ 38' 08-09-24 @ 1435
	35										
	38										

GROUNDWATER

DEPTH(ft)	HOUR	DATE
25.0		08-09-24

METHOD SONIC

SAMPLE TYPE
A - Drill cuttings
S - 2" O.D. 1.38" I.D. tube sample
U - 3" O.D. 2.42" I.D. tube sample
T - Thin Walled Shelby tube sample
NR - No Recovery

08-10-24
COMPLETED
@ 0950

MW-82A

10ft SCREEN 20.0' – 30.0'

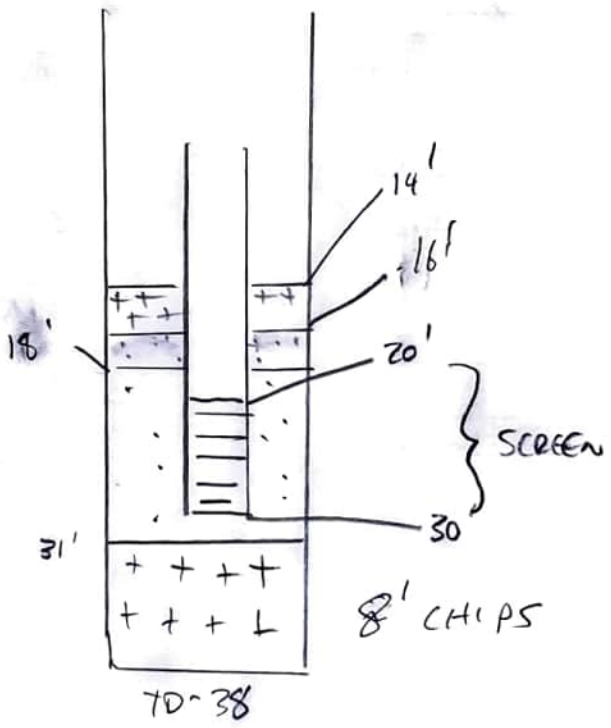
0-16' GROUT

14'-16' BENTO CHIPS

16-18' TRANSITION

18'-31' FILTER

31'-38' CHIPS



ARIZONA DEPARTMENT OF WATER RESOURCES

Phoenix, Arizona 85007

DRILLING CARD
VARIANCE GRANTED

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-931380**

AUTHORIZED DRILLER: **YELLOW JACKET DRILLING SERVICES, LLC** LICENSE NO: **78**

NOTICE OF INTENT TO **DRILL A ENV - MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **ARIZONA PUBLIC SERVICES**

ADDRESS: **PO BOX 188 M/S 4458, JOSEPH CITY, AZ, 86032**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SE 1/4 of the **SE** 1/4 of the **SE** 1/4 Section **25** Township **18 N** Range **19 E**

NO. OF WELLS IN THIS PROJECT: **1** ASSESSOR'S PARCEL NO: **107-23-003**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **8/5/2025**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named Driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the addres above to correct.

Variance(s) Granted To Driller:

- Shortened Surface Seal Variance – Surface seal casing may be less than 20 feet, but not be less than 5 feet.
- Thermoplastic Casing Surface Seal Variance in upper 20’ of well.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner’s behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

ARIZONA DEPARTMENT OF WATER RESOURCES
Electronic Filing - NOI Report

Phoenix, Arizona

NOI Type: Notice of Intent to Drill, Deepen, Modify a Monitor/Piezometer/Environmental Well
Well Type: ENV - MONITOR
Date Received at ADWR Website: 8/5/2024

Fee Paid: $150.00 Order Number: 15916

Well Registration Number: 55 - 931380
Number of Wells/Holes: 1 Drilling Authority Expires On: 8/5/2025

Driller's ADWR License Number: 78

Authorized Driller: YELLOW JACKET DRILLING SERVICES, LLC
ROC License Number Entered By Driller: 218848
Qualifying Party License Categories: A-4

Well Owner Name: ARIZONA PUBLIC SERVICES
Well Owner Address: PO BOX 188 M/S 4458
Well Owner City, State - Zip: JOSEPH CITY, AZ - 86032
Well Owner Phone: 602 723-2691

Date Construction is Scheduled to Begin: 6/8/2024

Book: 107 Map: 23 Parcel: 003

Is the Land Owner the same as the Well Owner?: Yes

Well Location: **SE** 1/4 of the **SE** 1/4 of the **SE** 1/4 Section **25** Township **18 N** Range **19 E**

AMA: JOSEPH CITY INA
County: NAVAJO
Contamination Site: NOT IN A REMEDIAL ACTION SITE

Depth: 55
Diameter: 8
Type of Casing of Proposed Well: PVC

Primary Water Use: **MONITORING**
Secondary Water Use(s): **N/A**

Is any portion of the land, on which the well is to be located, within 100 feet of a designated municipal provider's operating water distribution system as shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR. **No**

Will you be installing a dedicated pump ?: **Yes**

Will the installed pump have a pumping capacity of greater than 35 GPM, or will the well will be used to withdraw greater than 10 Acre Feet per year?: **No**

Variance(s) Granted To Driller:

- Shortened Surface Seal Variance – Surface seal casing may be less than 20 feet, but not be less than 5 feet.
- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

NOTICE

A.R.S. § 41-1030(B), (D), (E) and (F) provide as follows:

B. An agency shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule or state tribal gaming compact. A general grant of authority in statute does not constitute a basis for imposing a licensing requirement or condition unless a rule is made pursuant to that general grant of authority that specifically authorizes the requirement or condition.

D. This section may be enforced in a private civil action and relief may be awarded against the state. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against the state for a violation of this section.

E. A state employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the agency's adopted personnel policy.

F. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, Arizona 85007
(602) 771-8527 | www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER **A(18-19) 25 DDD**
WELL REGISTRATION NUMBER **55 - 931380**
PERMIT NUMBER (IF ISSUED)

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
YELLOW JACKET DRILLING SERVICES, LLC	78
ADDRESS: 3922 E UNIVERSITY DR., SUITE 1	TELEPHONE NUMBER: 602-453-3252
CITY / STATE / ZIP: PHOENIX, AZ, 85034	FAX

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: ARIZONA PUBLIC SERVICES

MAILING ADDRESS: PO BOX 188 M/S 4458

CITY / STATE / ZIP: JOSEPH CITY, AZ, 86032

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 602 723-2691

FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.):

COUNTY: NAVAJO

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK	MAP	PARCEL
107	23	003

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
			1/4	1/4	1/4

LATITUDE			LONGITUDE		
° DEGREES	' MINUTES	"N SECONDS	° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development

CHECK ONE
☐ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☐ Capped ☐ Abandoned
☐ Pump Installed ☐ **Not Drilled**

Method of Sealing at Reduction Points

CHECK ONE
☐ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates

DATE WELL CONSTRUCTION STARTED

DATE WELL CONSTRUCTION COMPLETED

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY	DATE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931380

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
Feet Below Land Surface	Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
Feet Below Land Surface			☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931380

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	**Description** Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)

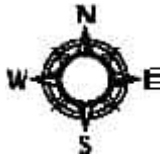
Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931380

SECTION 6. WELL SITE PLAN

NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
ARIZONA PUBLIC SERVICES	107	23	003

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.

						
						1" = _____ ft

Form 55-55 Instructions

Well Driller Report and Well Log

Introduction
These instructions are a guide to filling out Form DWR 55-55 (Rev. 06/15/2010), entitled "Well Driller Report and Well Log." Please review the instructions prior to completing the form in black or blue ink. Forms may be obtained at any Arizona Department of Water Resources (ADWR) office and at ADWR's web site, http://www.azwater.gov. For information about the form or these instructions, contact Groundwater Permitting & Wells at (602) 771-8500. There is no fee for filing this form.

When Form DWR 55-55 Must be Filed
Within 30 days after completion of the drilling, deepening or modification of a well, the licensed well driller who performed the work must file a Well Driller Report and Log with ADWR. Because the information in the report describes the well as it was actually constructed, and comes from the person who constructed the well, the information is very valuable to ADWR. For that reason, it is very important to fill out the report with the most accurate information possible.

Instructions for Filling out the Form

Well Registration and Permit Numbers
Fill in the registration number of the well and any ADWR permit number associated with the well in the upper right-hand corner of the first page. Also fill in the well registration number in the upper right-hand corner of all other pages so that the well information on those pages can be identified when the pages are separated during computer imaging.

Section 1 - Drilling Authorization
Fill in the name, address, DWR license number and telephone and fax numbers of the drilling firm filing the report.

Section 2 - Registry Information

Well Owner
Fill in the name, mailing address, telephone number and fax number (if available) of the well owner. If the well owner is a corporation, governmental unit or other entity, provide the name of a contact person.

Location of Well
Fill in the following information relating to the location of the well:

- The street address of the property where the well is located. For monitor wells or other wells associated with contaminant investigations or remedial projects, this will usually be the same as the facility address.
- The legal description of the well site. The legal description is the township, range, section, and in decreasing order, the quarters of that section so that the well location falls in a 10-acre block within that section. Normally, the legal description will be the same as that given in the original Notice of Intent to drill the well, but occasionally a more accurate description is discovered after the Notice is filed.
- The latitude and longitude (in degrees-minutes-seconds format) and land surface elevation at the well, and the method used to determine these data. **Please note this information is mandatory.** Use of a Global Positioning System (GPS) receiver is the only method accepted by the Department. The GPS unit should be adjusted to use the NAD-83 datum. Please indicate if the geographic coordinate datum used was NAD-83, and if not, which datum was used.
- The name of the county and the tax assessor's parcel identification number for the land where the well is located. This information can normally be taken from the original Notice of Intent to drill the well, and may also be obtained from the county tax assessor's office. Federal or State land will not have a parcel identification number.

Section 3 - Well Construction Details
Section 3 requires details on the construction of the well. Indicate the drill method by checking the appropriate box. If the drill method is not listed, check the "Other" box and describe the method. To the right of that, indicate the method of well development by checking the

appropriate box. Next, indicate the method of sealing at reduction points. If the method used is not listed, check "Other" and provide a brief explanation. Under *Well Driller Completion Report and Well Log* Form 55-55 Instructions (Rev. 06/2010) Page 2

Condition of Well, indicate whether the well was capped, or a pump was installed, when you left it. Then fill in the date when well construction started, and the date when well construction was completed.

Signature Block

The form must be signed and dated by the qualifying party of the drilling firm.

Section 4 - Well Construction Design (As Built)

Section 4 contains tables to fill in information on the existing borehole, the installed casing and the installed annular material. The tables are broken down by depth interval.

In the first set of boxes, fill in the depth of the boring and the depth of the completed well, as measured in feet below the land surface.

Under **Water Level Information** please indicate the static water level in the well, as measured in feet below the land surface, and the date and time the water level was measured. If the well is a flowing well, include the method by which the artesian flow is regulated.

In the **Borehole** table, fill in the diameter of the borehole in inches, and indicate the depth interval for each change in diameter. In the **Installed Casing** table, fill in the outer diameter of the casing in inches, check the appropriate boxes indicating the type of casing material and the type of perforations, and fill in the slot size of any perforations. Fill in the depth interval for each change in information. Please note that not every interval will be perforated. Check the "Blank or None" box for non-perforated depth intervals. If the type of casing material or perforations is not listed, describe the type in the appropriate box.

In the **Installed Annular Material** table, check the appropriate boxes indicating the type of annular material or filter pack installed at each depth interval. Fill in the size of the filter pack used. Provide the depth interval for each change in information. If the type of annular material is not listed, describe the material in the appropriate box.

Section 5 - Geologic Log of Well

Section 5 requires the geologic or lithologic log of the well. Describe the various units encountered during drilling. Provide as much description as possible. The log description must be broken down by depth intervals below ground surface, and every interval where groundwater, including perched groundwater, was encountered must be checked. If a consulting firm was involved with the well construction, the consultant's lithologic log may be submitted in lieu of completing Section 5.

Section 6 - Well Site Plan

In the boxes at the top of Section 6, fill in the name of the well owner and the county tax assessor's parcel identification number for the land where the well is located. Below that, provide a scale drawing of where the well was actually constructed on the parcel, illustrating the property boundaries, the well location and any structures on the property. The drawing must also show the location of any septic tank or sewer systems on the property or within 100 feet of the well, even if on neighboring property, and the distance between the well and the septic tank or sewer system. The drawing should closely match the drawing on the original Notice of Intent to drill the well, but the purpose of this drawing is to show where the well was actually drilled, especially if the location is different than originally planned. This information will be shared with the county.

Where to File Form

Completed forms may be mailed to ADWR at the following address:

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, AZ 85007

Completed forms may also be submitted to ADWR's main office at 1110 W. Washington St. Suite 310., Phoenix, AZ 85007.

The completed form must be legible and of good quality when received by ADWR so that it can be scanned into ADWR's permanent records.

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, AZ 85007
602-771-8500
azwater.gov

August 5, 2024

ARIZONA PUBLIC SERVICES
PO BOX 188 M/S 4458
JOSEPH CITY, AZ 86032

KATIE M. HOBBS
Governor

THOMAS BUSCHATZKE
Director

Registration No. 55- 931380
File Number: A(18-19) 25 DDD

Dear Well Applicant:

Enclosed is a copy of the Notice of Intention to Drill (NOI) a well which you or your driller recently filed with the Department of Water Resources. This letter is to inform you that the Department has approved the NOI and has mailed, or made available for download, a drilling authorization card to your designated well drilling contractor. The driller may not begin drilling until he/she has received the authorization, and must keep it in their possession at the well site during drilling. Although the issuance of this drill card authorizes you to drill the proposed well under state law, the drilling of the well may be subject to restrictions or regulations imposed by other entities.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, a new NOI must be filed and authorization from this Department received before proceeding with drilling. If the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report must be filed by your driller [as required by A.A.C. R12-15-816(F)].

If you change drillers, you must notify the Department of the new driller's identity on a Request to Change Well Drilling Contractor (form 55-71B). Please ensure that the new driller is licensed by the Department to drill the type of well you require. A new driller may not begin drilling until he/she receives a new drilling authorization card from the Department. Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

If you find it necessary to change the location of the proposed well(s), you may not proceed with drilling until you file an amended NOI with the Department. An amended drilling authorization card will then be issued to the well drilling contractor, which must be in their possession before drilling begins.

Arizona statute [A.R.S. § 45-600] requires registered well owners to file a Pump Installation Completion Report (form 55-56) with the Department within 30 days after the installation of pumping equipment, if authorized. A blank report is enclosed for your convenience. State statute also requires the driller to file a complete and accurate Well Drillers Report and Well Log (form 55-55) within 30 days after completion of drilling. A blank report form was provided to your driller with the drilling authorization card. You should insist and ensure that all of the required reports are accurately completed and timely filed with the Department.

Please be advised that Arizona statute [A.R.S. § 45-593(C)] requires a registered well owner to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information must be filed on a Request to Change Well Information form (form 55-71A). Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

Sincerely,

Groundwater Permitting and Wells Section

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Engineering and Permits Division
Phoenix, AZ 85007
602-771-8500

NOTICE TO WELL DRILLERS

This is a reminder that a valid drill card must be present for the drilling of each and every well constructed on a site. During the construction of a well, if an unexpected problem occurs; the hole collapses, the hole is dry, or a drill bit is lost and can't be recovered, or any number of other situations where the driller feels they need to move over and start another well. Please be aware drillers do not have the authority to start another well without first obtaining drilling authority for the new well. Please note the following statutes and regulations pertaining to well drilling and construction:

ARIZONA REVISED STATUTE (A.R.S.)

A.R.S. § 45-592.A.

A person may construct, replace or deepen a well in this state only pursuant to this article and section 45-834.01. The drilling of a well may not begin until all requirements of this article and section 45-834.01, as applicable, are met.

****

A.R.S. § 594.A.

The director shall adopt rules establishing construction standards for new wells and replacement wells, the deepening and abandonment of existing wells and the capping of open wells.

****

A.R.S. § 600.A

A well driller shall maintain a complete and accurate log of each well drilled.

ARIZONA ADMINISTRATIVE CODE (A.A.C.)

A.A.C. R12-15-803.A.
A person shall not drill or abandon a well, or cause a well to be drilled or abandoned, in a manner which is not in compliance with A.R.S. Title 45, Chapter 2, Article 10, and the rules adopted thereunder.

****

A.A.C. R12-15-810.A.
A well drilling contractor or single well licensee may commence drilling a well only if the well drilling contractor or licensee has possession of a drilling card at the well site issued by the Director in the name of the well drilling contractor or licensee, authorizing the drilling of the specific well in the specific location.

****

A.A.C. R12-15-816.F.
In the course of drilling a new well, the well may be abandoned without first filing a notice of intent to abandon and without an abandonment card.

*** THIS REQUIREMENT DOES NOT PERTAIN TO THE DRILLING OF MINERAL EXPLORATION, GEOTECHNICAL OR HEAT PUMP BOREHOLES**

Arizona Department of Water Resources
Groundwater Permitting and Wells Section
1802 W Jackson St. Box #79
Phoenix, AZ 85007
(602) 771-8527 ▪ www.azwater.gov

Landowner Authorization to Drill or Abandon a Well on Landowner's Parcel

Landowner Authorization to Drill or Abandon a Well by a Third Party on Landowner's Parcel Pursuant to A.R.S. § 45-596 and A.A.C. R12-15-809

FILE NUMBER **A(18-19) 25 DDD**
WELL REGISTRATION NUMBER 55 - 931380

The Arizona Department of Water Resources requires a well driller or well owner to obtain written permission from the owner of the land on which they intend to drill or abandon a well. Landowners, or their designated representative, must authorize the well to be drilled or abandoned with their signature on the Notice of Intent or on this form, to be attached to the Notice of Intent form.

PARCEL ADDRESS _____

COUNTY PARCEL ID 107 (BOOK) - 23 (MAP) - 003 (PARCEL) COUNTY NAVAJO

In accordance with A.R.S. § 45-496 and A.A.C. R12-15-809, I certify that:

¨ I am the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

¨ I am an authorized representative of the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

SIGNATURE	
TYPE OR PRINT NAME OF LANDOWNER / RESPRESENTATIVE	TITLE
SIGNATURE	DATE SIGNED

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-83A

PROJECT:	APS CHOLLA EVAP PONDS PERIMETER	PROJECT LOCATION:	APS CHOLLA, JOSEPH CITY, AZ
LOGGED BY:	J. LOPEZ	PROJECT FEATURE:	EVAP PONDS
DRILLER:	J. MUNGUIA	PROJECT #:	US00235513, 33711
DRILLER FIRM:	YELLOW JACKET DRILLING	STATION/OFFSET:	
RIG I.D.:	138	REFERENCE:	
RIG TYPE:	TSI - 150T TRUCK MOUNTED	COORDINATES:	34.927098°N, 110.270656°W
BORING TYPE:	SONIC BORING DIA.: 8"	COORDINATE SYS:	PADELF BE-GPS-7300
ORIENTATION:	VERTICAL	SURFACE ELEV. (FT):	~5070
HAMMER TYPE:	N/A	VERTICAL DATUM:	
HAMMER CALIBRATION-ENERGY TRANSFER RATIO:		COMPLETION DATE:	02-08-24 COMPLETION TIME: 1422
START DATE:	02-08-24 START TIME: 1219		02-09-24 WELL INSTALLATION COMPLETE @ 0900

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count (N1-60)	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	0								SM-SC	0'-5' HAND AUGER S. MOIST TO MOIST LIKELY CONSTRUCTION WATERING/ DUST CONTROL 8' RECOVERY FROM 5-15'	SILTY CLAYEY SAND: FILL 15% f. RED f. SAND, BROWN, LO-M PI, ~2.5' OF FILL. 2.5'-5.0: SM-SC @ 5.0' INCREASE CLAY BROWN TO DARK BROWN 15%-25% f M-H PI
	5										
	10										
	15								SC	LENS OF INCREASED SAND 15'-17' MOIST	NOTE: @ 15' INCREASE SAND RED FINE SANDS W/ MED SA. SANDS, M PI (15% f) @ 17.0' CLAY INCREASES 15%-25% f
	20										

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽			
▼			
▽			
▼			

METHOD N/A

SAMPLE TYPE
A - Drill cuttings
S - 2" O.D. 1.38" I.D. tube sample
U - 3" O.D. 2.42" I.D. tube sample
T - Thin Walled Shelby tube sample
NR - No Recovery

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-83A

PROJECT: APS POND EVAP DRILLING
PROJECT #: VE00733.13.3371
PROJECT LOCATION: APS CHOLLA JOSEPH CITY, AZ
PROJECT FEATURE: EVAP POND

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	25								SC	25'-35' WATER? MOIST MOISTURE INCREASES @ 25'	NOTE @ 25' INCREASE CLAY 25% to 30% f. MOIST, M-H PI
	30										
	35									MOIST to WET	NOTE: @ 35'-37' INCREASE SANDS ~20% f
	37										
	39								@39' SC	MOIST TO WET	SC, ~20-30% f, BROWN to REDDISH BROWN, HI PI FINE SANDS MOIST to WET
	40										
	45								@45' SC		45'-49', SC W/ SR f-C GRAVELS ~20-30% f, BROWN M-HI PI
	49'								MOENKOPI		MOENKOPI - MUDSTONE, ALTERATING THIN LAYERS OF SANDSTONE AND MUDSTONE. f-M GRAINED LIGHT BROWN, YELLOW SANDSTONES W/ FINE GRAINED REDDISH BROWN MUDSTONES

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽	31.0		
▼			
▽			
▼			

METHOD _____

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-831

PROJECT:	APS POND EVAP DRILLING	PROJECT LOCATION:	APS CHOLLA JOSEPH CITY, AZ
LOGGED BY:	J. LOPEZ	PROJECT FEATURE:	EVAP PONDS
DRILLER:	J. MUNGUIA	PROJECT #:	US00235513.3371
DRILLER FIRM:	YELLOW JACKET DRILLING	STATION/OFFSET:	
RIG I.D.:	138	REFERENCE:	
RIG TYPE:	TSI-150T TRUCK MOUNTED	COORDINATES:	34.927098°N, 110.270656°W
BORING TYPE:	SONIC BORING DIA.: 8"	COORDINATE SYS:	BAD ELF BE-EPS-2300
ORIENTATION:	VERTICAL	SURFACE ELEV. (FT):	~5070
HAMMER TYPE:	N/A	VERTICAL DATUM:	
HAMMER CALIBRATION–ENERGY TRANSFER RATIO:		COMPLETION DATE:	08-08-24 COMPLETION TIME: 1422
START DATE:	08-08-24 START TIME:		

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count (N1-60)	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	50										MOQUI CONT. . .
											"
	55										TD @ 55.0' IN MOENKOPI MOQUI AT 1422 08-08-24
											WL WAS TAGGED AT 31.0'
	10										
	15										
	20										

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽			
▼			
▽			
▼			

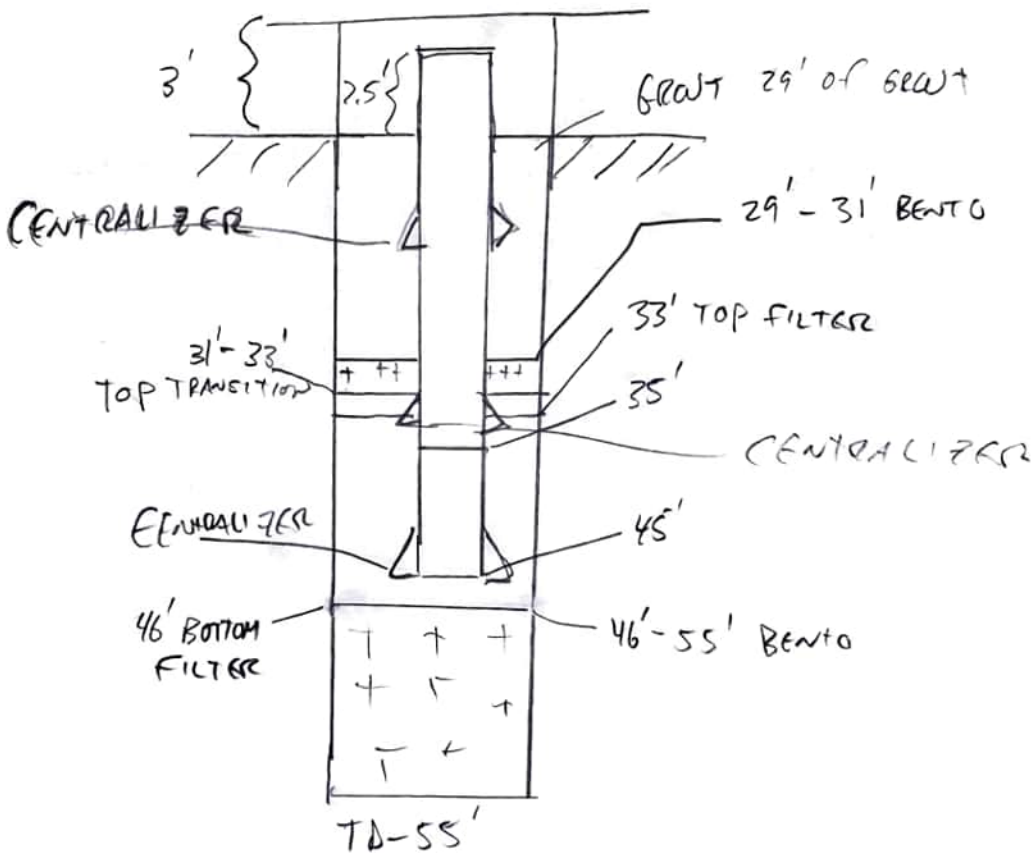
METHOD N/A

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

pg 4 of 4

MW-83A

08-09-24
@ 0900



ARIZONA DEPARTMENT OF WATER RESOURCES

Phoenix, Arizona 85007

DRILLING CARD
VARIANCE GRANTED

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-931376**

AUTHORIZED DRILLER: **YELLOW JACKET DRILLING SERVICES, LLC** LICENSE NO: **78**

NOTICE OF INTENT TO **DRILL A ENV - MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **ARIZONA PUBLIC SERVICES**

ADDRESS: **PO BOX 188 M/S 4458, JOSEPH CITY, AZ, 86032**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SW 1/4 of the **SW** 1/4 of the **SW** 1/4 Section **25** Township **18 N** Range **19 E**

NO. OF WELLS IN THIS PROJECT: **1** ASSESSOR'S PARCEL NO: **107-23-003**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **8/5/2025**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named Driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the addres above to correct.

Variance(s) Granted To Driller:

- Shortened Surface Seal Variance – Surface seal casing may be less than 20 feet, but not be less than 5 feet.
- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

ARIZONA DEPARTMENT OF WATER RESOURCES
Electronic Filing - NOI Report

Phoenix, Arizona

NOI Type: Notice of Intent to Drill, Deepen, Modify a Monitor/Piezometer/Environmental Well
Well Type: ENV - MONITOR
Date Received at ADWR Website: 8/5/2024

Fee Paid: $150.00 Order Number: 15912

Well Registration Number: 55 - 931376
Number of Wells/Holes: 1 Drilling Authority Expires On: 8/5/2025

Driller's ADWR License Number: 78

Authorized Driller: YELLOW JACKET DRILLING SERVICES, LLC
ROC License Number Entered By Driller: 218848
Qualifying Party License Categories: A-4

Well Owner Name: ARIZONA PUBLIC SERVICES
Well Owner Address: PO BOX 188 M/S 4458
Well Owner City, State - Zip: JOSEPH CITY, AZ - 86032
Well Owner Phone: 602 723-2691

Date Construction is Scheduled to Begin: 6/8/2024

Book: 107 Map: 23 Parcel: 003

Is the Land Owner the same as the Well Owner?: Yes

Well Location: **SW** 1/4 of the **SW** 1/4 of the **SW** 1/4 Section **25** Township **18 N** Range **19 E**

AMA: JOSEPH CITY INA
County: NAVAJO
Contamination Site: NOT IN A REMEDIAL ACTION SITE

Depth: 55
Diameter: 8
Type of Casing of Proposed Well: PVC

Primary Water Use: **MONITORING**
Secondary Water Use(s): **N/A**

Is any portion of the land, on which the well is to be located, within 100 feet of a designated municipal provider's operating water distribution system as shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR. **No**

Will you be installing a dedicated pump ?: **Yes**

Will the installed pump have a pumping capacity of greater than 35 GPM, or will the well will be used to withdraw greater than 10 Acre Feet per year?: **No**

Variance(s) Granted To Driller:

- Shortened Surface Seal Variance – Surface seal casing may be less than 20 feet, but not be less than 5 feet.
- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

NOTICE

A.R.S. § 41-1030(B), (D), (E) and (F) provide as follows:

B. An agency shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule or state tribal gaming compact. A general grant of authority in statute does not constitute a basis for imposing a licensing requirement or condition unless a rule is made pursuant to that general grant of authority that specifically authorizes the requirement or condition.

D. This section may be enforced in a private civil action and relief may be awarded against the state. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against the state for a violation of this section.

E. A state employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the agency's adopted personnel policy.

F. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, Arizona 85007
(602) 771-8527 | www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER **A(18-19) 25 CCC**
WELL REGISTRATION NUMBER **55 - 931376**
PERMIT NUMBER (IF ISSUED)

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
YELLOW JACKET DRILLING SERVICES, LLC	78
ADDRESS	**TELEPHONE NUMBER**
3922 E UNIVERSITY DR., SUITE 1	602-453-3252
CITY / STATE / ZIP	**FAX**
PHOENIX, AZ, 85034	

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL
ARIZONA PUBLIC SERVICES

MAILING ADDRESS
PO BOX 188 M/S 4458

CITY / STATE / ZIP
JOSEPH CITY, AZ, 86032

CONTACT PERSON NAME AND TITLE

TELEPHONE NUMBER
602 723-2691

FAX

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.)

COUNTY
NAVAJO

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK	MAP	PARCEL
107	23	003

Location of Well

WELL LOCATION ADDRESS (IF ANY)

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE 1/4	40 ACRE 1/4	10 ACRE 1/4

LATITUDE ° DEGREES	' MINUTES	"N SECONDS	LONGITUDE ° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development

CHECK ONE
☐ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☐ Capped ☐ Abandoned
☐ Pump Installed ☐ **Not Drilled**

Method of Sealing at Reduction Points

CHECK ONE
☐ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates

DATE WELL CONSTRUCTION STARTED

DATE WELL CONSTRUCTION COMPLETED

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY	DATE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931376

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
Feet Below Land Surface	Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
Feet Below Land Surface			☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931376

SECTION 5. GEOLOGIC LOG OF WELL

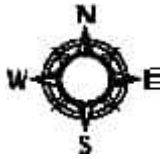
DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	**Description** Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931376

SECTION 6. WELL SITE PLAN			
NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
ARIZONA PUBLIC SERVICES	107	23	003

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.

						
						1" = _____ ft

Form 55-55 Instructions

Well Driller Report and Well Log

Introduction
These instructions are a guide to filling out Form DWR 55-55 (Rev. 06/15/2010), entitled "Well Driller Report and Well Log." Please review the instructions prior to completing the form in black or blue ink. Forms may be obtained at any Arizona Department of Water Resources (ADWR) office and at ADWR's web site, http://www.azwater.gov. For information about the form or these instructions, contact Groundwater Permitting & Wells at (602) 771-8500. There is no fee for filing this form.

When Form DWR 55-55 Must be Filed
Within 30 days after completion of the drilling, deepening or modification of a well, the licensed well driller who performed the work must file a Well Driller Report and Log with ADWR. Because the information in the report describes the well as it was actually constructed, and comes from the person who constructed the well, the information is very valuable to ADWR. For that reason, it is very important to fill out the report with the most accurate information possible.

Instructions for Filling out the Form

Well Registration and Permit Numbers
Fill in the registration number of the well and any ADWR permit number associated with the well in the upper right-hand corner of the first page. Also fill in the well registration number in the upper right-hand corner of all other pages so that the well information on those pages can be identified when the pages are separated during computer imaging.

Section 1 - Drilling Authorization
Fill in the name, address, DWR license number and telephone and fax numbers of the drilling firm filing the report.

Section 2 - Registry Information

Well Owner
Fill in the name, mailing address, telephone number and fax number (if available) of the well owner. If the well owner is a corporation, governmental unit or other entity, provide the name of a contact person.

Location of Well
Fill in the following information relating to the location of the well:

- The street address of the property where the well is located. For monitor wells or other wells associated with contaminant investigations or remedial projects, this will usually be the same as the facility address.
- The legal description of the well site. The legal description is the township, range, section, and in decreasing order, the quarters of that section so that the well location falls in a 10-acre block within that section. Normally, the legal description will be the same as that given in the original Notice of Intent to drill the well, but occasionally a more accurate description is discovered after the Notice is filed.
- The latitude and longitude (in degrees-minutes-seconds format) and land surface elevation at the well, and the method used to determine these data. **Please note this information is mandatory.** Use of a Global Positioning System (GPS) receiver is the only method accepted by the Department. The GPS unit should be adjusted to use the NAD-83 datum. Please indicate if the geographic coordinate datum used was NAD-83, and if not, which datum was used.
- The name of the county and the tax assessor's parcel identification number for the land where the well is located. This information can normally be taken from the original Notice of Intent to drill the well, and may also be obtained from the county tax assessor's office. Federal or State land will not have a parcel identification number.

Section 3 - Well Construction Details
Section 3 requires details on the construction of the well. Indicate the drill method by checking the appropriate box. If the drill method is not listed, check the "Other" box and describe the method. To the right of that, indicate the method of well development by checking the

appropriate box. Next, indicate the method of sealing at reduction points. If the method used is not listed, check "Other" and provide a brief explanation. Under *Well Driller Completion Report and Well Log* Form 55-55 Instructions (Rev. 06/2010) Page 2

Condition of Well, indicate whether the well was capped, or a pump was installed, when you left it. Then fill in the date when well construction started, and the date when well construction was completed.

Signature Block

The form must be signed and dated by the qualifying party of the drilling firm.

Section 4 - Well Construction Design (As Built)

Section 4 contains tables to fill in information on the existing borehole, the installed casing and the installed annular material. The tables are broken down by depth interval.

In the first set of boxes, fill in the depth of the boring and the depth of the completed well, as measured in feet below the land surface.

Under **Water Level Information** please indicate the static water level in the well, as measured in feet below the land surface, and the date and time the water level was measured. If the well is a flowing well, include the method by which the artesian flow is regulated.

In the **Borehole** table, fill in the diameter of the borehole in inches, and indicate the depth interval for each change in diameter. In the **Installed Casing** table, fill in the outer diameter of the casing in inches, check the appropriate boxes indicating the type of casing material and the type of perforations, and fill in the slot size of any perforations. Fill in the depth interval for each change in information. Please note that not every interval will be perforated. Check the "Blank or None" box for non-perforated depth intervals. If the type of casing material or perforations is not listed, describe the type in the appropriate box.

In the **Installed Annular Material** table, check the appropriate boxes indicating the type of annular material or filter pack installed at each depth interval. Fill in the size of the filter pack used. Provide the depth interval for each change in information. If the type of annular material is not listed, describe the material in the appropriate box.

Section 5 - Geologic Log of Well

Section 5 requires the geologic or lithologic log of the well. Describe the various units encountered during drilling. Provide as much description as possible. The log description must be broken down by depth intervals below ground surface, and every interval where groundwater, including perched groundwater, was encountered must be checked. If a consulting firm was involved with the well construction, the consultant's lithologic log may be submitted in lieu of completing Section 5.

Section 6 - Well Site Plan

In the boxes at the top of Section 6, fill in the name of the well owner and the county tax assessor's parcel identification number for the land where the well is located. Below that, provide a scale drawing of where the well was actually constructed on the parcel, illustrating the property boundaries, the well location and any structures on the property. The drawing must also show the location of any septic tank or sewer systems on the property or within 100 feet of the well, even if on neighboring property, and the distance between the well and the septic tank or sewer system. The drawing should closely match the drawing on the original Notice of Intent to drill the well, but the purpose of this drawing is to show where the well was actually drilled, especially if the location is different than originally planned. This information will be shared with the county.

Where to File Form

Completed forms may be mailed to ADWR at the following address:

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, AZ 85007

Completed forms may also be submitted to ADWR's main office at 1110 W. Washington St. Suite 310., Phoenix, AZ 85007.

The completed form must be legible and of good quality when received by ADWR so that it can be scanned into ADWR's permanent records.

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, AZ 85007
602-771-8500
azwater.gov

August 5, 2024

ARIZONA PUBLIC SERVICES
PO BOX 188 M/S 4458
JOSEPH CITY, AZ 86032

KATIE M. HOBBS
Governor

THOMAS BUSCHATZKE
Director

Registration No. 55- 931376
File Number: A(18-19) 25 CCC

Dear Well Applicant:

Enclosed is a copy of the Notice of Intention to Drill (NOI) a well which you or your driller recently filed with the Department of Water Resources. This letter is to inform you that the Department has approved the NOI and has mailed, or made available for download, a drilling authorization card to your designated well drilling contractor. The driller may not begin drilling until he/she has received the authorization, and must keep it in their possession at the well site during drilling. Although the issuance of this drill card authorizes you to drill the proposed well under state law, the drilling of the well may be subject to restrictions or regulations imposed by other entities.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, a new NOI must be filed and authorization from this Department received before proceeding with drilling. If the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report must be filed by your driller [as required by A.A.C. R12-15-816(F)].

If you change drillers, you must notify the Department of the new driller's identity on a Request to Change Well Drilling Contractor (form 55-71B). Please ensure that the new driller is licensed by the Department to drill the type of well you require. A new driller may not begin drilling until he/she receives a new drilling authorization card from the Department. Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

If you find it necessary to change the location of the proposed well(s), you may not proceed with drilling until you file an amended NOI with the Department. An amended drilling authorization card will then be issued to the well drilling contractor, which must be in their possession before drilling begins.

Arizona statute [A.R.S. § 45-600] requires registered well owners to file a Pump Installation Completion Report (form 55-56) with the Department within 30 days after the installation of pumping equipment, if authorized. A blank report is enclosed for your convenience. State statute also requires the driller to file a complete and accurate Well Drillers Report and Well Log (form 55-55) within 30 days after completion of drilling. A blank report form was provided to your driller with the drilling authorization card. You should insist and ensure that all of the required reports are accurately completed and timely filed with the Department.

Please be advised that Arizona statute [A.R.S. § 45-593(C)] requires a registered well owner to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information must be filed on a Request to Change Well Information form (form 55-71A). Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

Sincerely,

Groundwater Permitting and Wells Section

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Engineering and Permits Division
Phoenix, AZ 85007
602-771-8500

NOTICE TO WELL DRILLERS

This is a reminder that a valid drill card must be present for the drilling of each and every well constructed on a site. During the construction of a well, if an unexpected problem occurs; the hole collapses, the hole is dry, or a drill bit is lost and can't be recovered, or any number of other situations where the driller feels they need to move over and start another well. Please be aware drillers do not have the authority to start another well without first obtaining drilling authority for the new well. Please note the following statutes and regulations pertaining to well drilling and construction:

ARIZONA REVISED STATUTE (A.R.S.)

A.R.S. § 45-592.A.

A person may construct, replace or deepen a well in this state only pursuant to this article and section 45-834.01. The drilling of a well may not begin until all requirements of this article and section 45-834.01, as applicable, are met.

****

A.R.S. § 594.A.

The director shall adopt rules establishing construction standards for new wells and replacement wells, the deepening and abandonment of existing wells and the capping of open wells.

****

A.R.S. § 600.A

A well driller shall maintain a complete and accurate log of each well drilled.

ARIZONA ADMINISTRATIVE CODE (A.A.C.)

A.A.C. R12-15-803.A.
A person shall not drill or abandon a well, or cause a well to be drilled or abandoned, in a manner which is not in compliance with A.R.S. Title 45, Chapter 2, Article 10, and the rules adopted thereunder.

****

A.A.C. R12-15-810.A.
A well drilling contractor or single well licensee may commence drilling a well only if the well drilling contractor or licensee has possession of a drilling card at the well site issued by the Director in the name of the well drilling contractor or licensee, authorizing the drilling of the specific well in the specific location.

****

A.A.C. R12-15-816.F.
In the course of drilling a new well, the well may be abandoned without first filing a notice of intent to abandon and without an abandonment card.

*** THIS REQUIREMENT DOES NOT PERTAIN TO THE DRILLING OF MINERAL EXPLORATION, GEOTECHNICAL OR HEAT PUMP BOREHOLES**

Arizona Department of Water Resources
Groundwater Permitting and Wells Section
1802 W Jackson St. Box #79
Phoenix, AZ 85007
(602) 771-8527 ▪ www.azwater.gov

Landowner Authorization to Drill or Abandon a Well on Landowner's Parcel

Landowner Authorization to Drill or Abandon a Well by a Third Party on Landowner's Parcel Pursuant to A.R.S. § 45-596 and A.A.C. R12-15-809

FILE NUMBER **A(18-19) 25 CCC**
WELL REGISTRATION NUMBER 55 - 931376

The Arizona Department of Water Resources requires a well driller or well owner to obtain written permission from the owner of the land on which they intend to drill or abandon a well. Landowners, or their designated representative, must authorize the well to be drilled or abandoned with their signature on the Notice of Intent or on this form, to be attached to the Notice of Intent form.

PARCEL ADDRESS _____

COUNTY PARCEL ID 107 (BOOK) - 23 (MAP) - 003 (PARCEL) COUNTY NAVAJO

In accordance with A.R.S. § 45-496 and A.A.C. R12-15-809, I certify that:

¨ I am the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

¨ I am an authorized representative of the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

SIGNATURE	
TYPE OR PRINT NAME OF LANDOWNER / RESPRESENTATIVE	TITLE
SIGNATURE	DATE SIGNED

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-84A

PROJECT:	APS EVAP POND DRILLING	PROJECT LOCATION:	APS CHOLLA JOSEPH CITY, AZ
LOGGED BY:	J. LOPEZ	PROJECT FEATURE:	EVAP PONDS
DRILLER:	J. MUNGUIA	WOOD PROJECT #:	US00235513, 33[illegible]1
DRILLER FIRM:	VILLAN JACKET DRILLING	STATION/OFFSET:	
RIG I.D.:	138	REFERENCE:	BAD ELF BE-GPS-2306
RIG TYPE:	TSI-150T TRUCK MOUNTED	COORDINATES:	34.927160°N 110.274554°W
BORING TYPE:	SONIC BORING DIA.: 8"	COORDINATE SYS:	
ORIENTATION:	VERTICAL	SURFACE ELEV. (FT):	~5045'
HAMMER TYPE:		VERTICAL DATUM:	
HAMMER CALIBRATION–ENERGY TRANSFER RATIO:		COMPLETION DATE:	08-08-24 COMPLETION TIME: 0741
START DATE:	08-07-24 START TIME: 1400		08-08-24

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count (N1-60)	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	0									0'-5' BULK HAND AUGER	WELL INSTALLATION COMPLETION TIME: 0745
	2								SC	LITTLE COLORADO ALLUVIUM	0-2': FILL MATERIAL
	5									2'-5' 5'-15' ~8.5 RECOVERY	(2'-5'): SILTY CLAYEY SAND SC: 25-30% FINES PRED. FINE SAND, H PI DARK BROWN, S MOIST VERY WEAKLY CEMENTED
	10										
	15									@ 15' WATER ADDED	NOTE: @ 15' INCREASE CLAY 30% F. REDDISH BROWN, WEAKLY CEMENTED
	20										

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽			
▼			
▽			
▼			

METHOD N/A

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW 84A

PROJECT: APS EVAP POND DRILLING
PROJECT #: VS00235513.3371
PROJECT LOCATION: APS CHOLLA, JOSEPH CITY, AZ
PROJECT FEATURE: EVAP PONDS

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	20									15'-25' ~10' RECOVERY	
									SC		NOTE: DECREASE CLAY INCREASE SAND ~15% f LIGHT BROWN
	25								SC	25' TO 35' BIT TOO HOT, LET BIT COOL DOWN	NOTE: @ 25' INCREASE CLAY ~30% f. D. BROWN
						25'-35' CLAY IS MOIST BUT NOT WET.			CL		CL: CLAY (30-50% f) D. BROWN TO REDDISH BROWN. S. MOIST TO MOIST. HI PI.
	30										
	35								SP	35'-37': GROUNDWATER 35'	POORLY GRADED SAND W/ SILT AND CLAY. BROWN. F-M SA SANDS. WET, LO PI
	37								SC	37'-45 PERCHED GW?	CLAYEY SAND: 15%-25% FRED f. SAND. MOIST TO WET M. PI.
	40										

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽	35.0'		
▼			
▽			
▼			

METHOD _____

SAMPLE TYPE
A - Drill cuttings
S - 2" O.D. 1.38" I.D. tube sample
U - 3" O.D. 2.42" I.D. tube sample
T - Thin Walled Shelby tube sample
NR - No Recovery

WSP

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-84A

PROJECT:	EVAP POND (APS)	PROJECT LOCATION:	APS CHOLLA JOSEPH CITY, AZ
LOGGED BY:	J. LOPEZ	PROJECT FEATURE:	EVAP POND
DRILLER:	J. MUNGUIA	WOOD PROJECT #:	US0023513.3371
DRILLER FIRM:	VJD	STATION/OFFSET:	
RIG I.D.:	138	REFERENCE:	
RIG TYPE:	TSI ~150T TRUCK MOUNTED	COORDINATES:	34.927160°N, 110.274554°W
BORING TYPE:	SONIC — BORING DIA.:	COORDINATE SYS:	BAD ELF BE-GPS-2300
ORIENTATION:	VERTICAL	SURFACE ELEV. (FT):	~5045
HAMMER TYPE:		VERTICAL DATUM:	
HAMMER CALIBRATION-ENERGY TRANSFER RATIO:		COMPLETION DATE:	08-08-24 — COMPLETION TIME: 0741
START DATE:	CONT. — START TIME: 0700		08-08-24 @1045

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count (N1-60)	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	45									45' - 50' RIG IS CHATTERING AND BINDING (HARD DRILLING)	MOENKOPI - MOQUI THIN ALTERNATING LAYERS OF FINE GRAINED GRAYISH GREEN SHALES, MEDIUM TO FINE GRAINED REDDISH BROWN MUDSTONES WITH THIN LENSES OF GYPSUM AND EVAPORITES
	50										NOTE: @ 49.0'-49.5' LAYER OF GYPSUM EVAPORITES
											TD @ 50' IN THE MOQUI
	10										0741 AZ TIME
	15										
	20										

GROUNDWATER

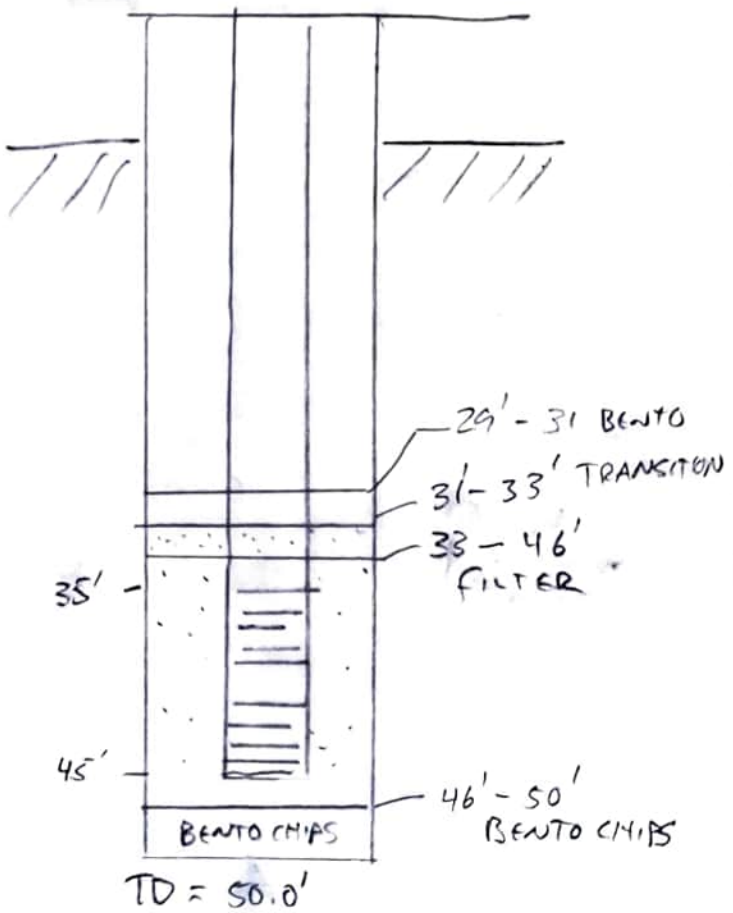
DEPTH(ft)	HOUR	DATE

METHOD N/A

SAMPLE TYPE
A - Drill cuttings
S - 2" O.D. 1.38" I.D. tube sample
U - 3" O.D. 2.42" I.D. tube sample
T - Thin Walled Shelby tube sample
NR - No Recovery

Pg: 4 of 4

MW-84A
08-09-24



ARIZONA DEPARTMENT OF WATER RESOURCES

Phoenix, Arizona 85007

DRILLING CARD
VARIANCE GRANTED

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-931406**

AUTHORIZED DRILLER: **YELLOW JACKET DRILLING SERVICES, LLC** LICENSE NO: **78**

NOTICE OF INTENT TO **DRILL A ENV - MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **ARIZONA PUBLIC SERVICES**

ADDRESS: **PO BOX 188 M/S 4458, JOSEPH CITY, AZ, 86032**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SW 1/4 of the **SW** 1/4 of the **SW** 1/4 Section **25** Township **18 N** Range **19 E**

NO. OF WELLS IN THIS PROJECT: **1** ASSESSOR'S PARCEL NO: **107-23-003**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **8/9/2025**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named Driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the addres above to correct.

Variance(s) Granted To Driller:

- Thermoplastic Casing Surface Seal Variance in upper 20’ of well.
- Well Screen > 10' Variance – Monitor well’s screen may be screened greater than 10 feet above the highest seasonal static water level.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner’s behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider's most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

ARIZONA DEPARTMENT OF WATER RESOURCES
Electronic Filing - NOI Report

Phoenix, Arizona

NOI Type: Notice of Intent to Drill, Deepen, Modify a Monitor/Piezometer/Environmental Well
Well Type: ENV - MONITOR
Date Received at ADWR Website: 8/9/2024

Fee Paid: $150.00 Order Number: 15958

Well Registration Number: 55 - 931406
Number of Wells/Holes: 1 Drilling Authority Expires On: 8/9/2025

Driller's ADWR License Number: 78

Authorized Driller: YELLOW JACKET DRILLING SERVICES, LLC
ROC License Number Entered By Driller: 218848
Qualifying Party License Categories: A-4

Well Owner Name: ARIZONA PUBLIC SERVICES
Well Owner Address: PO BOX 188 M/S 4458
Well Owner City, State - Zip: JOSEPH CITY, AZ - 86032
Well Owner Phone: 602 723-2691

Date Construction is Scheduled to Begin: 8/11/2024

Book: 107 Map: 23 Parcel: 003

Is the Land Owner the same as the Well Owner?: Yes

Well Location: **SW** 1/4 of the **SW** 1/4 of the **SW** 1/4 Section **25** Township **18 N** Range **19 E**

AMA: JOSEPH CITY INA
County: NAVAJO
Contamination Site: NOT IN A REMEDIAL ACTION SITE

Depth: 145
Diameter: 8
Type of Casing of Proposed Well: PVC

Primary Water Use: **MONITORING**
Secondary Water Use(s): **N/A**

Is any portion of the land, on which the well is to be located, within 100 feet of a designated municipal provider's operating water distribution system as shown on the municipal provider's most recent digitized service area map filed by the municipal provider with the director of ADWR. **No**

Will you be installing a dedicated pump ?: **Yes**

Will the installed pump have a pumping capacity of greater than 35 GPM, or will the well will be used to withdraw greater than 10 Acre Feet per year?: **No**

Variance(s) Granted To Driller:

- Thermoplastic Casing Surface Seal Variance in upper 20’ of well.
- Well Screen > 10' Variance – Monitor well’s screen may be screened greater than 10 feet above the highest seasonal static water level.

Certification(s) Made By Driller:

þ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

þ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner’s behalf.

þ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

þ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

þ By checking this box, I certify that this NOI application is not an application to replace, deepen, or modify an existing well.

þ By checking this box, I certify, on behalf of the landowner, that no portion of the land on which the well is to be drilled is within 100 feet of the operating water distribution system of a municipal provider with an assured water supply designation as
shown on the municipal provider’s most recent digitized service area map filed by the municipal provider with the director of ADWR.

þ By checking this box, I understand that the Authorization to drill this well DOES NOT constitute or guarantee an approval to use the well for the purpose of withdrawing groundwater for transportation to an Active Management Area (AMA) pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) without official prior approval from the Department.

þ It is understood that the location of the water distribution system may change between now and the time of drilling. Prior to drilling the well, it is the responsibility of the landowner to come to ADWR's offices and review the most up-to-date digitized service area maps of nearby municipal providers with a designation of assured water supply on file with ADWR, to verify whether any portion of the land on which the well will be drilled is within 100 feet of the operating water distribution system of a municipal provider with a designation of assured water supply. If any portion of the land is within 100 feet of the operating water distribution system of a water provider with a designation of assured water supply, as shown on the provider’s most recent digitized service area map on file with ADWR, the drilling of the well is prohibited unless an exemption to A.R.S. § 45-454(C) is requested and granted.

NOTICE

A.R.S. § 41-1030(B), (D), (E) and (F) provide as follows:

B. An agency shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule or state tribal gaming compact. A general grant of authority in statute does not constitute a basis for imposing a licensing requirement or condition unless a rule is made pursuant to that general grant of authority that specifically authorizes the requirement or condition.

D. This section may be enforced in a private civil action and relief may be awarded against the state. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against the state for a violation of this section.

E. A state employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the agency’s adopted personnel policy.

F. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, Arizona 85007
(602) 771-8527 | www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER: **A(18-19) 25 CCC**
WELL REGISTRATION NUMBER: **55 - 931406**
PERMIT NUMBER (IF ISSUED):

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
YELLOW JACKET DRILLING SERVICES, LLC	78
ADDRESS: 3922 E UNIVERSITY DR., SUITE 1	TELEPHONE NUMBER: 602-453-3252
CITY / STATE / ZIP: PHOENIX, AZ, 85034	FAX

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: ARIZONA PUBLIC SERVICES

MAILING ADDRESS: PO BOX 188 M/S 4458

CITY / STATE / ZIP: JOSEPH CITY, AZ, 86032

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 602 723-2691

FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.):

COUNTY: NAVAJO

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK	MAP	PARCEL
107	23	003

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
			1/4	1/4	1/4

LATITUDE			LONGITUDE		
°	'	"N	°	'	"W
DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development

CHECK ONE
☐ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☐ Capped ☐ Abandoned
☐ Pump Installed ☐ **Not Drilled**

Method of Sealing at Reduction Points

CHECK ONE
☐ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates

DATE WELL CONSTRUCTION STARTED

DATE WELL CONSTRUCTION COMPLETED

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY	DATE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931406

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
Feet Below Land Surface	Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
Feet Below Land Surface			☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931406

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	**Description** Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)

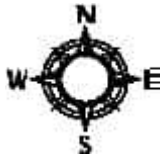
Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 931406

SECTION 6. WELL SITE PLAN

NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
ARIZONA PUBLIC SERVICES	107	23	003

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.

						
						1" = _____ ft

Form 55-55 Instructions

Well Driller Report and Well Log

Introduction
These instructions are a guide to filling out Form DWR 55-55 (Rev. 06/15/2010), entitled "Well Driller Report and Well Log." Please review the instructions prior to completing the form in black or blue ink. Forms may be obtained at any Arizona Department of Water Resources (ADWR) office and at ADWR's web site, http://www.azwater.gov. For information about the form or these instructions, contact Groundwater Permitting & Wells at (602) 771-8500. There is no fee for filing this form.

When Form DWR 55-55 Must be Filed
Within 30 days after completion of the drilling, deepening or modification of a well, the licensed well driller who performed the work must file a Well Driller Report and Log with ADWR. Because the information in the report describes the well as it was actually constructed, and comes from the person who constructed the well, the information is very valuable to ADWR. For that reason, it is very important to fill out the report with the most accurate information possible.

Instructions for Filling out the Form

Well Registration and Permit Numbers
Fill in the registration number of the well and any ADWR permit number associated with the well in the upper right-hand corner of the first page. Also fill in the well registration number in the upper right-hand corner of all other pages so that the well information on those pages can be identified when the pages are separated during computer imaging.

Section 1 - Drilling Authorization
Fill in the name, address, DWR license number and telephone and fax numbers of the drilling firm filing the report.

Section 2 - Registry Information

Well Owner
Fill in the name, mailing address, telephone number and fax number (if available) of the well owner. If the well owner is a corporation, governmental unit or other entity, provide the name of a contact person.

Location of Well
Fill in the following information relating to the location of the well:

- The street address of the property where the well is located. For monitor wells or other wells associated with contaminant investigations or remedial projects, this will usually be the same as the facility address.
- The legal description of the well site. The legal description is the township, range, section, and in decreasing order, the quarters of that section so that the well location falls in a 10-acre block within that section. Normally, the legal description will be the same as that given in the original Notice of Intent to drill the well, but occasionally a more accurate description is discovered after the Notice is filed.
- The latitude and longitude (in degrees-minutes-seconds format) and land surface elevation at the well, and the method used to determine these data. **Please note this information is mandatory.** Use of a Global Positioning System (GPS) receiver is the only method accepted by the Department. The GPS unit should be adjusted to use the NAD-83 datum. Please indicate if the geographic coordinate datum used was NAD-83, and if not, which datum was used.
- The name of the county and the tax assessor's parcel identification number for the land where the well is located. This information can normally be taken from the original Notice of Intent to drill the well, and may also be obtained from the county tax assessor's office. Federal or State land will not have a parcel identification number.

Section 3 - Well Construction Details
Section 3 requires details on the construction of the well. Indicate the drill method by checking the appropriate box. If the drill method is not listed, check the "Other" box and describe the method. To the right of that, indicate the method of well development by checking the

appropriate box. Next, indicate the method of sealing at reduction points. If the method used is not listed, check "Other" and provide a brief explanation. Under *Well Driller Completion Report and Well Log* Form 55-55 Instructions (Rev. 06/2010) Page 2

Condition of Well, indicate whether the well was capped, or a pump was installed, when you left it. Then fill in the date when well construction started, and the date when well construction was completed.

Signature Block

The form must be signed and dated by the qualifying party of the drilling firm.

Section 4 - Well Construction Design (As Built)

Section 4 contains tables to fill in information on the existing borehole, the installed casing and the installed annular material. The tables are broken down by depth interval.

In the first set of boxes, fill in the depth of the boring and the depth of the completed well, as measured in feet below the land surface.

Under **Water Level Information** please indicate the static water level in the well, as measured in feet below the land surface, and the date and time the water level was measured. If the well is a flowing well, include the method by which the artesian flow is regulated.

In the **Borehole** table, fill in the diameter of the borehole in inches, and indicate the depth interval for each change in diameter. In the **Installed Casing** table, fill in the outer diameter of the casing in inches, check the appropriate boxes indicating the type of casing material and the type of perforations, and fill in the slot size of any perforations. Fill in the depth interval for each change in information. Please note that not every interval will be perforated. Check the "Blank or None" box for non-perforated depth intervals. If the type of casing material or perforations is not listed, describe the type in the appropriate box.

In the **Installed Annular Material** table, check the appropriate boxes indicating the type of annular material or filter pack installed at each depth interval. Fill in the size of the filter pack used. Provide the depth interval for each change in information. If the type of annular material is not listed, describe the material in the appropriate box.

Section 5 - Geologic Log of Well

Section 5 requires the geologic or lithologic log of the well. Describe the various units encountered during drilling. Provide as much description as possible. The log description must be broken down by depth intervals below ground surface, and every interval where groundwater, including perched groundwater, was encountered must be checked. If a consulting firm was involved with the well construction, the consultant's lithologic log may be submitted in lieu of completing Section 5.

Section 6 - Well Site Plan

In the boxes at the top of Section 6, fill in the name of the well owner and the county tax assessor's parcel identification number for the land where the well is located. Below that, provide a scale drawing of where the well was actually constructed on the parcel, illustrating the property boundaries, the well location and any structures on the property. The drawing must also show the location of any septic tank or sewer systems on the property or within 100 feet of the well, even if on neighboring property, and the distance between the well and the septic tank or sewer system. The drawing should closely match the drawing on the original Notice of Intent to drill the well, but the purpose of this drawing is to show where the well was actually drilled, especially if the location is different than originally planned. This information will be shared with the county.

Where to File Form

Completed forms may be mailed to ADWR at the following address:

Arizona Department of Water Resources
Groundwater Permitting and Wells
1802 W Jackson St. Box #79
Phoenix, AZ 85007

Completed forms may also be submitted to ADWR's main office at 1110 W. Washington St. Suite 310., Phoenix, AZ 85007.

The completed form must be legible and of good quality when received by ADWR so that it can be scanned into ADWR's permanent records.

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, AZ 85007
602-771-8500
azwater.gov

August 9, 2024

ARIZONA PUBLIC SERVICES
PO BOX 188 M/S 4458
JOSEPH CITY, AZ 86032

KATIE M. HOBBS
Governor

THOMAS BUSCHATZKE
Director

Registration No. 55- 931406
File Number: A(18-19) 25 CCC

Dear Well Applicant:

Enclosed is a copy of the Notice of Intention to Drill (NOI) a well which you or your driller recently filed with the Department of Water Resources. This letter is to inform you that the Department has approved the NOI and has mailed, or made available for download, a drilling authorization card to your designated well drilling contractor. The driller may not begin drilling until he/she has received the authorization, and must keep it in their possession at the well site during drilling. Although the issuance of this drill card authorizes you to drill the proposed well under state law, the drilling of the well may be subject to restrictions or regulations imposed by other entities.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, a new NOI must be filed and authorization from this Department received before proceeding with drilling. If the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report must be filed by your driller [as required by A.A.C. R12-15-816(F)].

If you change drillers, you must notify the Department of the new driller's identity on a Request to Change Well Drilling Contractor (form 55-71B). Please ensure that the new driller is licensed by the Department to drill the type of well you require. A new driller may not begin drilling until he/she receives a new drilling authorization card from the Department. Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

If you find it necessary to change the location of the proposed well(s), you may not proceed with drilling until you file an amended NOI with the Department. An amended drilling authorization card will then be issued to the well drilling contractor, which must be in their possession before drilling begins.

Arizona statute [A.R.S. § 45-600] requires registered well owners to file a Pump Installation Completion Report (form 55-56) with the Department within 30 days after the installation of pumping equipment, if authorized. A blank report is enclosed for your convenience. State statute also requires the driller to file a complete and accurate Well Drillers Report and Well Log (form 55-55) within 30 days after completion of drilling. A blank report form was provided to your driller with the drilling authorization card. You should insist and ensure that all of the required reports are accurately completed and timely filed with the Department.

Please be advised that Arizona statute [A.R.S. § 45-593(C)] requires a registered well owner to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information must be filed on a Request to Change Well Information form (form 55-71A). Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

Sincerely,

Groundwater Permitting and Wells Section

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Engineering and Permits Division
Phoenix, AZ 85007
602-771-8500

NOTICE TO WELL DRILLERS

This is a reminder that a valid drill card must be present for the drilling of each and every well constructed on a site. During the construction of a well, if an unexpected problem occurs; the hole collapses, the hole is dry, or a drill bit is lost and can't be recovered, or any number of other situations where the driller feels they need to move over and start another well. Please be aware drillers do not have the authority to start another well without first obtaining drilling authority for the new well. Please note the following statutes and regulations pertaining to well drilling and construction:

ARIZONA REVISED STATUTE (A.R.S.)

A.R.S. § 45-592.A.

A person may construct, replace or deepen a well in this state only pursuant to this article and section 45-834.01. The drilling of a well may not begin until all requirements of this article and section 45-834.01, as applicable, are met.

****

A.R.S. § 594.A.

The director shall adopt rules establishing construction standards for new wells and replacement wells, the deepening and abandonment of existing wells and the capping of open wells.

****

A.R.S. § 600.A

A well driller shall maintain a complete and accurate log of each well drilled.

ARIZONA ADMINISTRATIVE CODE (A.A.C.)

A.A.C. R12-15-803.A.
A person shall not drill or abandon a well, or cause a well to be drilled or abandoned, in a manner which is not in compliance with A.R.S. Title 45, Chapter 2, Article 10, and the rules adopted thereunder.

****

A.A.C. R12-15-810.A.
A well drilling contractor or single well licensee may commence drilling a well only if the well drilling contractor or licensee has possession of a drilling card at the well site issued by the Director in the name of the well drilling contractor or licensee, authorizing the drilling of the specific well in the specific location.

****

A.A.C. R12-15-816.F.
In the course of drilling a new well, the well may be abandoned without first filing a notice of intent to abandon and without an abandonment card.

*** THIS REQUIREMENT DOES NOT PERTAIN TO THE DRILLING OF MINERAL EXPLORATION, GEOTECHNICAL OR HEAT PUMP BOREHOLES**

Arizona Department of Water Resources
Groundwater Permitting and Wells Section
1802 W Jackson St. Box #79
Phoenix, AZ 85007
(602) 771-8527 ▪ www.azwater.gov

Landowner Authorization to Drill or Abandon a Well on Landowner's Parcel

Landowner Authorization to Drill or Abandon a Well by a Third Party on Landowner's Parcel Pursuant to A.R.S. § 45-596 and A.A.C. R12-15-809

FILE NUMBER **A(18-19) 25 CCC**
WELL REGISTRATION NUMBER 55 - 931406

The Arizona Department of Water Resources requires a well driller or well owner to obtain written permission from the owner of the land on which they intend to drill or abandon a well. Landowners, or their designated representative, must authorize the well to be drilled or abandoned with their signature on the Notice of Intent or on this form, to be attached to the Notice of Intent form.

PARCEL ADDRESS _____

COUNTY PARCEL ID 107 (BOOK) - 23 (MAP) - 003 (PARCEL) COUNTY NAVAJO

In accordance with A.R.S. § 45-496 and A.A.C. R12-15-809, I certify that:

¨ I am the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

¨ I am an authorized representative of the owner of the parcel on which I am giving permission for a well to be ¨ drilled or ¨ abandoned.

SIGNATURE	
TYPE OR PRINT NAME OF LANDOWNER / RESPRESENTATIVE	TITLE
SIGNATURE	DATE SIGNED

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-85C

PROJECT:	APS EJAP POND DRILLING	PROJECT LOCATION:	APS CHOLLA JOSEPH CITY, AZ
LOGGED BY:	J. LOPEZ	PROJECT FEATURE:	EVAPORATION PONDS
DRILLER:	J. NUNGLIA	WSP PROJECT #:	US00233513.3317
DRILLER FIRM:	YELLOW JACKET DRILLING	STATION/OFFSET:	
RIG I.D.:	139	REFERENCE:	
RIG TYPE:	TSI - 150T TRUCK MOUNTED	COORDINATES:	34.925925°N, 110.274394°W
BORING TYPE:	SONIC BORING DIA.: 10"	COORDINATE SYS:	BE-GPS-2300
ORIENTATION:	VERTICAL	SURFACE ELEV. (FT):	~5058
HAMMER TYPE:		VERTICAL DATUM:	
HAMMER CALIBRATION-ENERGY TRANSFER RATIO:		COMPLETION DATE:	08-13-24 COMPLETION TIME: 0930
START DATE:	08-11-24 START TIME: 0955	WELL INSTALL COMPLETION:	08-15-24 0700

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count (N1-60)	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	0								SP	0'	FILL: POORLY GRADED SAND W/ SILT F-M SA SAND
	5								SC		CLAYEY SAND: (15% F) PRED. F SAND, SOME CEMENTATION, $CaCO_3$ FILAMENTS
	11									@ 11.0'	INCREASE CLAY (15-25% F) D. BROWN, W. CEMENTATION SMALL ROOTS PRESENT M-PI
	10										
	15									@ 17.0'	INCREASE CLAY (25-35%) W-M CEMENTATION, LARGE ROOTS PRESENT HI PI
	19								SM-SC	@ 19.0' SILT-SC	SILTY SAND W/ CLAY (10-20% F) PRED F SAND, SOME M. SA SAND
	20									S. MOIST	LIGHT BROWN, LO-NO PI S. MOIST

GROUNDWATER

DEPTH(ft)	HOUR	DATE

METHOD N/A

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

WSP

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-85C

PROJECT: APS CHOLLA EVAP PONDS
PROJECT LOCATION: APS CHOLLA JOSEPH CITY, AZ
WSP PROJECT #: VS00235133.3317
PROJECT FEATURE: EVAP PONDS

10" BIT / BARREL - SONIC

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	20										"
	23								SC		SILTY CLAYEY SAND : (20% f) PRED f. SAND, W-M FIRM SOME PEDS, RARE YELLOW BROWN STAINING, BROWN, S. MOIST
	25								SP-SM	DRILLER ADDED WATER	
	27								SC		SILTY SAND : (15% f) f M SA SAND, BROWN, NO PI
											SILTY CLAYEY SAND: (15-25% f) PRED f SAND, SOME YELLOW TO YELLOW ~~GREEN~~ & ~~GRAY~~ STAINING, M- PI, REDDISH BROWN
	30										
	33								SM-SC		SILTY SAND W/ CLAY (15-25% f) PRED f. SAND, LO PI, BROWN
									SC		
	35									GW @ 35' BELOW GRADE	SILTY CLAYEY SAND (25-30% f) PRED f. SAND, M PI, BROWN MOIST - WET
	39								SP-SM	39'-40' SP-SM	SILTY SAND W/ CLAY: (15-20% f) f-M SA SANDS, SOME CLAY, CONSIDERABLE YELLOW STAINING
	40								SC	MOIST - WET	CLAYEY SAND : (25-30%) f PRED f SAND, M- PI, BROWN
	43								SP-SM	YELLOW BROWN, NO-LO PI	SILTY SAND W/CLAY (15-20% f) f-M SA SANDS, SOME CLAY, LT BROWN TO
	44								CL		CLAY W/ SAND & SILT: (30-50% f) MOTTLED D. BROWN W/ SOME BLACK STAINING, PRED D. BROWN, V. DENSE MOIST THROUGHOUT M- HI PI

GROUNDWATER

	DEPTH (ft)	HOUR	DATE
ST			
▼			
!			
▼			

METHOD _____

SAMPLE TYPE
A - Drill cuttings
S - 2" O.D. 1.38" I.D. tube sample
U - 3" O.D. 2.42" I.D. tube sample
T - Thin Walled Shelby tube sample
NR - No Recovery

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-85C

PROJECT: APS EVAP POND DRILLING
PROJECT #: US00073513.3391
PROJECT LOCATION: APS CHOLLA, JOSEPH CITY, AZ
PROJECT FEATURE: EVAPORATION PONDS

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	45'								CL	MOIST TO S. MOIST	SANDY CLAY W/ GRAVEL: (20-50% f) (~10% to 15%, SR-R COARSE GRAVEL) MOTTLED, V. DENSE, MOIST TO S. MOIST HI PI
	47'										
	48'					MOENKOPI - MOQUI				@47'-48' S. MOIST TO DRY	MOQUI: ALTERNATING SILTSTONES, SILTY SANDSTONES, SANDSTONES W/ SILT, SANDY SILTY MUDSTONES OR SHALES
						@48" HARD DRILLING & RIG CHATTER, DRILLER IS RUNNING WATER TO "CORE" THROUGH					
	50'					@48'-49' ~1ft SANDY SILTSTONE @50' DRILLER STOPPED WATER				@49'-51' S. MOIST TO DRY	@48-49ft: SANDY SILTSTONE, VF GRAINED, W/ f TO M LENTICULAR BEDS OF SANDSTONE f. SANDS THROUGHOUT, MOD. HARD, MOD WEATHERED, BRAWN TO REDDISH BROWN
										MOQUI CONT. 47'-51': DRY (47-51)	@49-51ft: SANDSTONE W/SILT: VERY f GRAINED, POORLY SORTED, VARIAGATED COLOR OF PREDOMINANTLY REDDISH BROWN W/ REDDISH ORANGE MOTTLE, Io MINERALIZATION, SCOURS WITH KNIFE MOD, HARD TO HARD. MOD. WEATHERED
	55					@55' DRY					@51-55ft: SANDY SILTY MUDSTONE OR SHALE: SOFT TO MODERATELY HARD, SANDY, MOSTLY f. SANDS, THIN BLACK LAMINAE, MICACEOUS, FAINT SHEEN OR GLISTENING IN SUNLIGHT, PRED D. BROWN TO REDDISH BROWN, SIMILAR TO DESERT VARNISH, SOME Io MINERALIZATION IN BEDDING, MODERATELY WEATHERED, S. MOIST TO DRY.
						NOTE: DRILLER HAS ADVANCED THE 10" CASING TO 50' INTO DRY MOQUI				TO 50' OR WUPATKI?	
	60'					ALLUVIAL AQUIFER IS SEALED OFF USING CASING					
						NOTE: DRILLER IS UNABLE TO ADVANCE CASING BEYOND 50' WITHOUT GETTING STUCK					
						NOTE: SWITCHING TO TELESCOPING TO				AIR ROTARY 8" BIT @ 55'	
										@ 55-60 ft: 11 MOQUI CONT. NOTE: DRY	

SEE NEXT PAGE

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽			
▼			
▽			
▼			

METHOD _____

SAMPLE TYPE
A - Drill cuttings
S - 2" O.D. 1.38" I.D. tube sample
U - 3" O.D. 2.42" I.D. tube sample
T - Thin Walled Shelby tube sample
NR - No Recovery

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-85C

PROJECT: APS CHOLLA EVAPORATION PONDS
PROJECT LOCATION: APS EVAP PONDS, JOSEPH CITY AZ
WOOD PROJECT #: V500275.3317
PROJECT FEATURE: EVAP PONDS

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	60									WUPATKI	NOTE: FROM 60' TO 80' WATER PRODUCTION RANGES FROM 2.5 TO 23 GAL/MIN BY BUCKET TEST. DRILLER REPORTS LOSS OF BIT WEIGHT CONSISTENT W/ FRACTURES & VOIDS
						GW IS ~ 60'					WUPATKI @ 60' SILTSTONES WITH SAND, OR SANDY SILTSTONES
	65										~65' TO 73': SILTY SANDSTONE MOD. HARD, VF GRAINED SAND, MODERATE BROWN TO PINKISH BROWN W/ SOME YELLOW FRAGMENTS
	70										75.0'-80' - SANDY SILTSTONE TO SANDY MUDSTONE VF GRAINED, f SANDS, SOFT TO MOD. HARD, OCCASIONAL PALE-PINK TO RED SANDSTONE LAYERS
											80'-85': "
	75										
	81									WUPATKI CONT.	85'-88': SILTSTONE: FINE GRAINED, MICACEOUS PALE GRAY TO GREENISH GRAY. SOFT TO MOD. HARD, SILTY & SANDY.
										COCONINO SANDSTONE	88'-95': GRADATIONAL CONTACT B/W WUPATKI AND COCONINO. HARD f-C GRAINED VERY WELL GRADED, YELLOWISH GRAY TO PALE YELLOW. ABUNDANT YELLOW-ORANGE STAINING W/ IRON STAINING

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽			
▼			
▽			
▼			

METHOD _____

SAMPLE TYPE
A – Drill cuttings
S – 2" O.D. 1.38" I.D. tube sample
U – 3" O.D. 2.42" I.D. tube sample
T – Thin Walled Shelby tube sample
NR – No Recovery

wsp

Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: MW-85C

PROJECT: APS EVAP POND DRILLING
PROJECT LOCATION: APS CHOLLA, JOSEPH CITY, AZ
PROJECT #: 60023513.3371
PROJECT FEATURE: EVAPORATION PONDS

Elevation in Feet	Depth in Feet	Drill Rate Min/ft.	Graphical Log	Sample	Sample Type	Blow Count	Dry Density lbs. per Cubic ft.	Moisture Content Percent of Dry Weight	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
	85									88 to 95': CONTACT B/N WUPATKI AND COCONINO APPEARS TO BE GRADATIONAL	
	88										COCONINO SANDSTONE: HARD f-c GRAINED, VERY WELL GRADED, YELLOWISH GRAY TO PALE YELLOW, ABUNDANT YELLOW-ORANGE STAINING W/ Io STAINING
	90					@95' ~10+020 GALLON/MIN					95'-105 ft: "
											105-120 ft: SANDSTONE BECOMES PRED FINE GRAINED, COLOR IS LIGHTENING TO PALE YELLOW TO LIGHT BROWN/TAN,
											NOTE: @120': (CIRCULATED) WATER COLOR CHANGES TO LT BROWN-TAN-WHITE
											120'-130': SANDSTONE IS PRED. LIGHT TAN TO LIGHT BROWN TO WHITE, NO-LO Io STAINING, SOFT TO MOD HARD
											TD = 130'
											EOB @ 0830 ON 08-13-24

GROUNDWATER

	DEPTH(ft)	HOUR	DATE
▽			
▼			
▽			
▼			

METHOD _____

SAMPLE TYPE
A - Drill cuttings
S - 2" O.D. 1.38" I.D. tube sample
U - 3" O.D. 2.42" I.D. tube sample
T - Thin Walled Shelby tube sample
NR - No Recovery

MW-85C

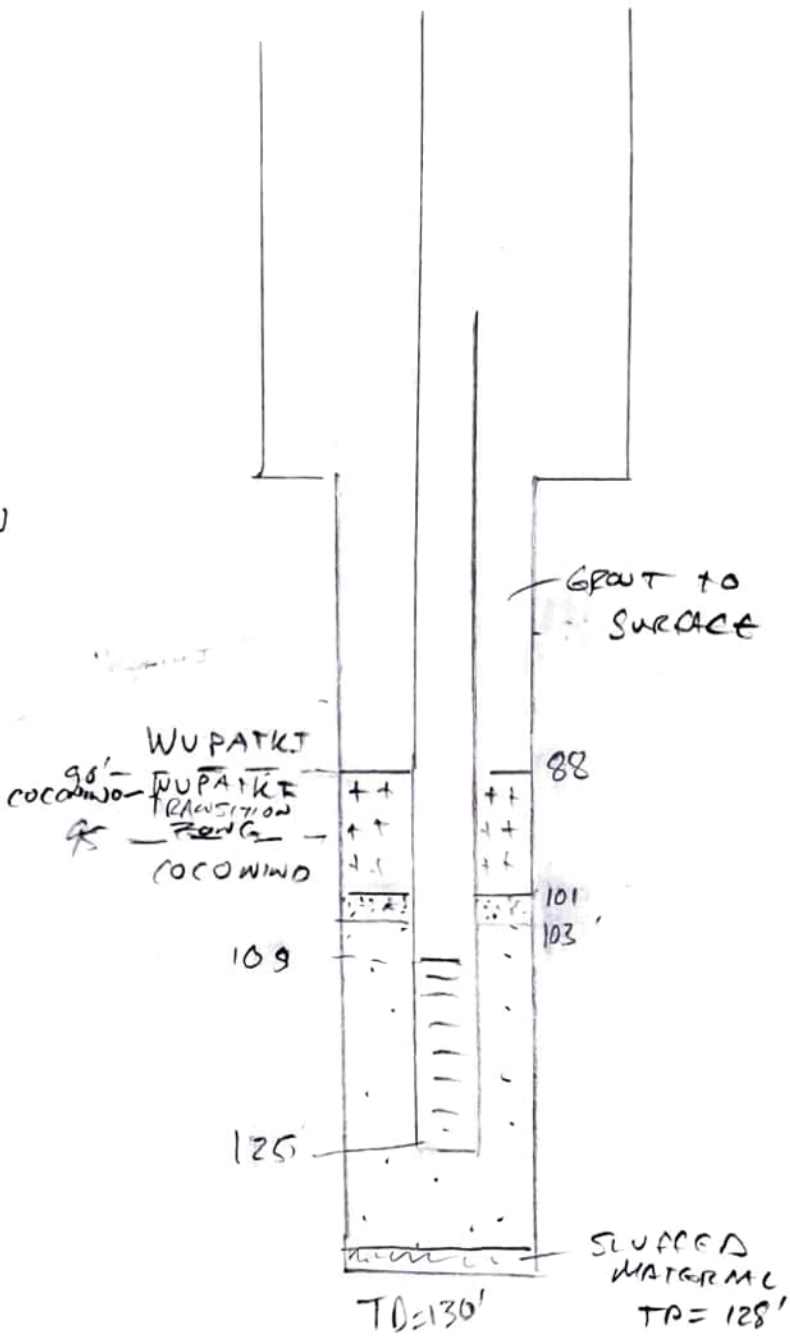
COMPLETED: 08-15-24
@ 0700

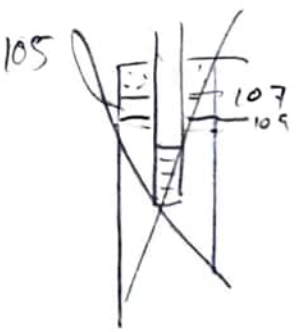
0'-90' GROUT

88'-101' PEL. PLUG

101'-103' f. TRANSITION

103'-129' FILTER





10 x 10' = 100'

2 x 10' SCREEN = 20'

1 x 5' BLANK = 5'

APPENDIX

E

SURVEY RESULTS

Martin H. Martin, LS
1612 N. Transwestern
Pump Rd.
Bellemont, AZ 86015
928-853-2298 Main

Serving Northern Arizona
since 1986.

Date: October 28, 2024

Jimmy White
WSP USA
4600 E. Washingto St. Suite 600
Phoenix, AZ 85034

Dear Jimmy:

Per your request:

I , Martin H. Martin, Registered Land Surveyor, Arizona Number 18548, herby certify that I performed the survey of the attached list of site features at the Cholla Power Generating Plant on October 22, 2024, and the locations and elevations are correct to the best of my knowledge. All horizontal data is in Arizona State Plane Coordinates, East Zone with a scale factor of 1.000000. Elevations are based on North American Vertical Datum of 1988. Primary Control Point utilized was NGS Station Randle 2, with a PID of ES0782.

If you have any questions, please give me a call.

Sincerely,
Martin H. Martin, LS



martinlandsurveys@gmail.com

SURVEY #	SPC N (AZ East)	SPC E (AZ East)	LAT	LON	ELEV (NAVD88)	DESCRIPTION	PVC ELEV FOR MW'S
PN18	N 1437513.4190	E 663416.5106	LA34.570387879200	LN-110.171951445000	5051.32	BAP E1 VALVE	
PN19	N 1437515.2268	E 663418.1420	LA34.570389669400	LN-110.171949487600	5051.38	BAP E2 VALVE	
PN13	N 1437540.4860	E 662803.8389	LA34.570413907200	LN-110.172687548200	5044.79	BAP W1 VALVE	
PN14	N 1437542.5493	E 662802.2600	LA34.570415946200	LN-110.172689448200	5044.81	BAP W2 VALVE	
PN17	N 1437520.3922	E 663126.2555	LA34.570394425000	LN-110.172300167400	5050.25	TEE_EQ_TANK	
PN6	N 1437707.3373	E 662314.9164	LA34.570578348000	LN-110.173275191600	5055.32	G_MID_TRANS	
PN7	N 1437660.2358	E 662490.2115	LA34.570531974000	LN-110.173064520200	5047.65	G_PERF_SOLID_TRANS	
PN5	N 1437758.8629	E 662090.2904	LA34.570629035600	LN-110.173545137000	5071.72	G_TOP	
PN63	N 1428484.6709	E 666507.9698	LA34.553460423600	LN-110.164225254200	5023.33	MW80A_+2.93-0.41_PVC	5025.85
PN64	N 1428009.3072	E 667124.5769	LA34.552990878400	LN-110.163484060200	5024.52	MW81A_+2.82-0.58_PVC	5026.76
PN65	N 1427976.2173	E 668359.3953	LA34.552959460000	LN-110.162000978200	5025.95	MW82A_+2.75-0.91_PVC	5027.79
PN66	N 1428764.1902	E 668832.3860	LA34.553739396400	LN-110.161433891400	5028.19	MW83A_+2.53-0.30_PVC	5030.42
PN67	N 1428807.8359	E 667657.0954	LA34.553781339000	LN-110.162845529600	5025.13	MW84A_+2.89-0.64_PVC	5027.38
PN69	N 1428362.6022	E 667718.9760	LA34.553340989000	LN-110.162770632400	5027.70	MW85C_PVC	5027.70
PN68	N 1428362.4041	E 667718.9220	LA34.553340793000	LN-110.162770697000	5028.19	MW85C_VLT	
PN24	N 1437559.0431	E 664076.7404	LA34.570433799400	LN-110.171158311400	5052.72	PETRO_DIRT	
PN23	N 1437558.1923	E 664076.8817	LA34.570432958000	LN-110.171158140400	5054.35	PETRO_TOP _AT_DOOR	
PN34	N 1437511.4914	E 663391.2878	LA34.570385942000	LN-110.171981744800	5051.56	PVC_01	
PN35	N 1437475.7729	E 663593.2126	LA34.570350853400	LN-110.171739100400	5049.31	PVC_02	
PN36	N 1437415.0448	E 663785.9849	LA34.570291013800	LN-110.171507416200	5050.05	PVC_03	
PN37	N 1437442.7177	E 663969.6139	LA34.570318606000	LN-110.171286845200	5050.47	PVC_04	
PN38	N 1437557.9354	E 664120.0369	LA34.570432755000	LN-110.171106293400	5051.22	PVC_05	
PN39	N 1437706.5769	E 664271.2869	LA34.570579966200	LN-110.170924794400	5052.70	PVC_06	
PN40	N 1437880.3275	E 664372.3273	LA34.570751954800	LN-110.170803652000	5056.32	PVC_07	
PN41	N 1438039.0258	E 664502.8719	LA34.570909088400	LN-110.170647039800	5063.09	PVC_08	
PN42	N 1438278.3504	E 664544.5457	LA34.571145871000	LN-110.170597312200	5058.90	PVC_09	
PN43	N 1438393.2588	E 664540.9330	LA34.571259531200	LN-110.170601816000	5058.49	PVC_10	
PN31	N 1437668.3045	E 664671.6466	LA34.570542577600	LN-110.170443745400	5049.26	PVC_11	
PN32	N 1437598.4299	E 664512.5392	LA34.570473273400	LN-110.170634798400	5048.99	PVC_12	
PN33	N 1437573.6048	E 664312.0463	LA34.570448481600	LN-110.170875635600	5048.82	PVC_13	
PN27	N 1437744.6132	E 664689.4586	LA34.570618081000	LN-110.170422454000	5048.58	TANNER_GRD	
PN26	N 1437742.0646	E 664692.9415	LA34.570615564000	LN-110.170418266000	5049.68	TANNER_TOP	
PN29	N 1437794.5912	E 664666.7273	LA34.570667491400	LN-110.170449834400	5052.30	TANNER_TRENCH_MID	
PN28	N 1437751.2895	E 664625.3364	LA34.570624610200	LN-110.170499500400	5051.90	TANNER_TRENCH1	
PN30	N 1437840.7417	E 664708.1312	LA34.570713190600	LN-110.170400156600	5050.87	TANNER_TRENCH2	
PN9	N 1437586.4068	E 662497.7874	LA34.570458953600	LN-110.173055307400	5044.25	TDX3_CONC	
PN8	N 1437585.5817	E 662498.1307	LA34.570458137800	LN-110.173054893800	5046.02	TDX3_TOP	
PN16	N 1437480.9856	E 663027.8219	LA34.570355325000	LN-110.172418367000	5048.13	TDX4_CONC	
PN15	N 1437480.2785	E 663027.6529	LA34.570354625400	LN-110.172418569000	5049.78	TDX4_TOP	
PN21	N 1437439.6574	E 663617.7638	LA34.570315158400	LN-110.171709552000	5049.56	TDX5_CONC	
PN20	N 1437438.8713	E 663617.6047	LA34.570314380600	LN-110.171709742000	5051.24	TDX5_TOP	
PN22	N 1437536.1146	E 664086.5874	LA34.570411130800	LN-110.171146448200	5051.03	TEE_PETRO	
PN25	N 1437554.9100	E 664113.2981	LA34.570429754400	LN-110.171114385000	5050.97	TEE_PETRO_TANNER	
PN10	N 1437592.1589	E 662591.4785	LA34.570464759200	LN-110.172942755400	5045.32	TEE_TDX3	
PN12	N 1437541.6291	E 662651.5708	LA34.570414850600	LN-110.172870484800	5043.51	TOE_DRAIN_SUMP_GRD	
PN11	N 1437534.5170	E 662651.0365	LA34.570407814800	LN-110.172871116000	5041.38	TOE_DRAIN_SUMP_LID	
PN46	N 1438149.7798	E 664590.6726	LA34.571018746200	LN-110.170541711400	5058.23	TWX_03_CONC	
PN45	N 1438149.7384	E 664590.9995	LA34.571018705600	LN-110.170541318600	5060.08	TWX_03_TOP	
PN48	N 1438193.3820	E 664578.0437	LA34.571061861600	LN-110.170556946000	5058.48	TWX_04_CONC	
PN47	N 1438193.5149	E 664578.4757	LA34.571061993600	LN-110.170556427200	5060.37	TWX_04_TOP	
PN50	N 1438241.5349	E 664563.4388	LA34.571109476200	LN-110.170574561200	5059.39	TWX_05_CONC	
PN49	N 1438241.7281	E 664563.8587	LA34.571109667800	LN-110.170574057000	5061.18	TWX_05_TOP	
PN52	N 1438289.2351	E 664550.4842	LA34.571156644800	LN-110.170590193000	5058.61	TWX_06_CONC	
PN51	N 1438288.5906	E 664550.7072	LA34.571156007600	LN-110.170589924200	5060.38	TWX_06_TOP	
PN54	N 1438337.1236	E 664533.6523	LA34.571203995200	LN-110.170610483400	5058.84	TWX_07_CONC	
PN53	N 1438336.8405	E 664534.1968	LA34.571203715800	LN-110.170609828800	5060.67	TWX_07_TOP	
PN56	N 1438397.4320	E 664548.3845	LA34.571263668000	LN-110.170592869400	5059.07	TWX_08_CONC	
PN55	N 1438396.9795	E 664548.7394	LA34.571263220800	LN-110.170592442400	5060.78	TWX_08_TOP	
PN58	N 1438436.6776	E 664577.8236	LA34.571302523200	LN-110.170557556000	5058.61	TWX_09_CONC	
PN57	N 1438436.1638	E 664577.6943	LA34.571302014800	LN-110.170557710600	5060.48	TWX_09_TOP	
PN60	N 1438414.9818	E 664627.2596	LA34.571281120000	LN-110.170498131000	5056.69	TWX_10_CONC	
PN59	N 1438414.4393	E 664627.4779	LA34.571280583600	LN-110.170497868000	5058.59	TWX_10_TOP	
PN44	N 1438143.4877	E 664580.2399	LA34.571012510000	LN-110.170554236600	5058.34	TWX_FLOWMETER	

APPENDIX

B

TECHNICAL EVALUATION OF LABORATORY ANALYTICAL METHOD SPLIT SAMPLING DATA FOR FLUORIDE COLLECTED FROM FOUR CORNERS AND CHOLLA POWER PLANTS

TECHNICAL MEMORANDUM

To: Arizona Public Service Company

Project No: US0023513.9708-US-2024 Cholla CCR Compliance SVC/ US0023513.6155-US-2024 APS FC CCR Compliance SVC

By: Samantha O'Shea

Reviewed by: Maren Henley, PE

Tel: 480-966-8295

CC: File

Date: January 17, 2025

Re: **CCR GROUNDWATER ASSESSMENT MONITORING**
TECHNICAL EVALUATION OF LABORATORY ANALYTICAL METHOD SPLIT SAMPLING DATA FOR FLUORIDE COLLECTED FROM FOUR CORNERS AND CHOLLA POWER PLANTS

Arizona Public Service Company
Four Corners Power Plant – Fruitland, New Mexico
Cholla Power Plant – Navajo County, Arizona

INTRODUCTION

This Technical Memorandum (Tech Memo) presents the results of a technical evaluation of groundwater monitoring split sampling data collected from monitoring wells located at the Arizona Public Service Company (APS) Four Corners Power Plant in Fruitland, New Mexico (Four Corners) (**Figure 1**) and at the Cholla Power Plant in Navajo County, Arizona (Cholla) (**Figure 2**) (Sites). WSP USA Environment & Infrastructure Solutions, Inc. (WSP) conducts semi-annual groundwater monitoring at the Sites pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020). The current monitoring network for Four Corners and Cholla are displayed on **Figures 3** and **4**, respectively. The well construction details for monitoring locations included in this evaluation are presented in **Table 1**.

For many years, Eurofins Environment Testing America (Eurofins) has been the contracted laboratory for the semi-annual CCR groundwater monitoring program at the Sites. During the time when Eurofins conducted the CCR groundwater analyses, inconsistencies were noted in the sample dilution factors (DFs) and reporting limits (RLs). These issues ultimately led to an evaluation of alternative laboratories in 2023. The results of the evaluation were presented in

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the *Technical Evaluation of Laboratory Split Sampling Data Collected from Four Corners and Cholla Power Plants* (WSP, 2023). Eurofins was found to meet all project requirements and CCR compliance samples continued to be submitted to Eurofins for analysis. However, since that evaluation was performed, additional DF and RL inconsistencies were observed in the analysis of fluoride using United States Environmental Protection Agency (USEPA) Drinking Water Method 300.0 during the first semi-annual groundwater monitoring events of 2023 (WSP, 2024a and b). Several RLs were above the designated background threshold values (BTVs) for the designated CCR unit. The laboratory declined to re-analyze the samples at lower dilutions due to elevated sulfate and total dissolved solids (TDS) concentrations, which can adversely affect laboratory equipment. Based on WSP's review sulfate and TDS concentrations in the 2023 first semi-annual monitoring event were consistent with historical data at these locations – except for TDS at MW-11, which was only slightly elevated.

To achieve the lowest level of detection and somewhat mitigate the effect of the higher DFs, fluoride concentrations were estimated between the method detection limit (MDL) and the RL. The reported MDLs ranged from less than (<) 0.8 to < 400 milligrams per liter (mg/L), which for many CCR compliance wells still exceeded the BTV. The analytical fluoride results for the first semi-annual groundwater monitoring events in 2023 for Four Corners and Cholla are presented in **Table 2** and **3**, respectively. Additionally, **Table 2** and **3** include the associated DFs, MDLs, the CCR unit's specified BTVs for fluoride, and the results for sulfate and TDS.

At the suggestion of Eurofins, USEPA Hazardous Waste Test Method 9056A was evaluated as an alternative to USEPA Method 300.0. Each method employs ion chromatography, but USEPA Method 9056A may allow for less sample dilution. A select subset of samples was submitted to Eurofins for fluoride analysis by USEPA Method 300.0 and 9056A during the second semi-annual groundwater monitoring event in 2023 to evaluate the analytical comparability of the methods. The process of selecting the laboratory methods, the selection of the wells to be used in the analysis, and the evaluation and comparison of the results are presented and summarized in the following sections. The Tech Memo evaluates the precision and accuracy of the sampling data and presents recommendations based on the results of the technical evaluation.

SAMPLE COLLECTION AND ANALYSIS

CCR groundwater monitoring program samples for the second semi-annual event in 2023 were collected in November 2023 for Four Corners and October 2023 for Cholla. The split samples were collected from a subset of monitoring wells selected to represent a range of locations near CCR units where fluoride has been consistently detected in the past. At Four Corners; wells were selected because they were downgradient of the Upper Retention Sump (URS) and Multiunit 1. At Cholla, wells were selected at the boundary of the Bottom Ash Pond (BAP) and Fly Ash Pond (FAP) and within the alluvial and Moenkopi formations. The selected monitoring wells are presented in **Table 4**.

A total of 14 and 5 split samples were each collected for Cholla and Four Corners, respectively. Groundwater samples were collected using a low flow sampling method per the project standard operating procedures outlined in the Sampling and Analysis Plans for the Sites (Wood, 2022a and b). Samples were collected in 500 milliliter (mL) unpreserved plastic containers provided by the laboratory for the USEPA Methods 300.0 and 9056 analyses. The holding time for these samples with the associated analyses is 28 days. All semi-annual CCR samples were submitted under a signed chain of custody (CoC) and relinquished to Eurofins for analysis. The collected samples were submitted to Eurofins and analyzed within the specified holding period.

Tables 5 and **6** present the split sampling results for each site. The laboratory reports of analysis are included in **Attachment A**. The reports include the results of CCR groundwater samples that were not evaluated in the split sample analysis.

TECHNICAL EVALUATION RESULTS

ANALYTICAL VALIDATION

A WSP chemist performed a USEPA Stage 2A validation on samples collected. This data evaluation is defined in the project sampling and analysis plan (SAP). Data assessment checklists are generated for each sample delivery group submitted to the analytical laboratory during the reporting period. The laboratory performing the analyses as well as the methods of analysis are presented in the individual data validation checklists completed by the WSP chemist. A WSP chemist reviewed and evaluated all laboratory data and added specific qualifiers based on laboratory deficiencies which are noted in the data validation checklists (**Attachment B**).

No qualifiers were added to the fluoride results evaluated for the Sites. The primary (USEPA Method 300.0) and secondary (USEPA Method 9056) analytical results were reviewed and findings were included in the data validation checklists (**Attachment B**) and in the following section.

All analytical data was deemed useable with no significant deficiencies or rejected records. This determination is based on analyses meeting the SAP-specified holding time of 28-days, the absence of fluoride in the laboratory blank samples, laboratory control sample (LCS)/LCS duplicate recoveries within the specified limits, and matrix spike/matrix spike duplicate (MS/MSD) sample recoveries within the specified limits.

The laboratory performed a duplicate analysis for fluoride on M-46A and MW-77A and results were within the laboratory specified limits. The fluoride analysis RPD for the laboratory matrix spike (MS)/matrix spike duplicate (MSD) samples for M-46A and M-77A were 2 and 3, respectively. These RPDs were both below the laboratory RPD limit of 20.

Additional QA/QC samples (e.g., duplicates and matrix spike/matrix spike duplicates [MS/MSDs]) were collected and used in validating the CCR compliance groundwater samples

that are not included in the laboratory analytical reports in **Attachment A**. A complete set analytical reports, including all QA/QC samples, are included in the *Annual Groundwater Monitoring and Corrective Action Report 2023* (WSP, 2024a and b). The QA/QC sample evaluation is performed by a qualified chemist and included in the data validation report (WSP, 2024c and d).

METHOD SPLIT PRECISION

Precision, defined as the degree of agreement or reproducibility between analytical results, was evaluated by a WSP chemist and is presented in **Table 7**. Precision is evaluated by comparing the split samples results to the historical ranges for each well and by calculating the relative percent difference (RPD) between the results of the primary and secondary methods. Additionally, the magnitude of sulfate and TDS concentrations relative to historical ranges and BTV benchmarks was assessed as a potential factor contributing to sample dilutions and elevated RLs, particularly in analyses using USEPA Method 300.0.

A WSP chemist evaluated both methods and the relative percent difference (RPD) between the methods during the analytical validation process. The Site specific (Four Corners and Cholla Sites) comparison table includes the relative percent difference (RPD) between analytical methods is presented in **Table 7**. No significant deficiencies or rejected records were present in the data set with the exception of the result for MW-72M (**Table 6**) where the secondary result was two orders of magnitude greater than the BTV for the BAP (less than (<) 80 mg/L versus < 0.8 mg/L) as a result of a separate laboratory dilutions. The findings of the evaluation is presented in the following section per Site.

FOUR CORNERS

Precision between fluoride results from the primary and the secondary results in the Four Corners samples were deemed near equivalent. The dilution factors (DF) for the primary and secondary sample results were two (2) with RLs of 0.8 mg/L. The targeted project specific RL discussed with the laboratory was 0.8 mg/L and both methods were able to achieve the appropriate RL. The RPDs between the primary and secondary fluoride results were 0% excluding the RPD at MW-68 which was 8% (MW-68 fluoride results were 13 and 12 mg/L). The presented RPDs were less than 40%.

Detected concentrations of sulfate and TDS at MW-68 were elevated above the associated BTVs and slightly elevated compared to historically detected concentrations. The detected concentrations of sulfate and TDS at the remaining locations were consistent with historically detected concentrations. The laboratory was able to achieve the appropriate RLs for fluoride with the elevated sulfate and TDS concentrations at MW-68.

The primary and secondary sample results were consistent with historically detected concentrations. The sample results had acceptable RLs and DFs per the project's specifications.

CHOLLA

Precision between fluoride results from the primary and the secondary results were deemed generally acceptable, with RPDs less than 40%, differences between detected concentrations less than the average reporting limit, or differences between a non-detect results and a low detection (MW-77A) with the following exception (**Table 7**):

- The non-detect fluoride result observed at MW-72M. The RPD between the primary and secondary sample results were 196% due to a RL of 80 mg/L and a DF of 200 for the secondary sample result. The 300.0 and 9056 analyses were performed at 2 times and 200 times dilutions and fluoride was not detected in either analysis.

The primary fluoride sample results were consistent with historically detected concentrations excluding the non-detect secondary result at MW-72M which was above the Bottom Ash Pond (BAP) BTV of 0.8 mg/L. Precision values between results from the primary and the secondary analytical results were deemed near equivalent excluding results at MW-72M.

The DFs for the primary and secondary sample results were 2 with RLs of 0.8 mg/L excluding the following:

- MW-72M
  - Primary: DF of 2 and RL of 0.8 mg/L
  - Secondary: DF of 200 and RL of 80 mg/L
- MW-77A
  - Primary: DF of 2 and RL of 0.8 mg/L
  - Secondary: DF of 1 and RL of 0.4 mg/L
- MW-78A
  - Primary: DF of 1 and RL of 0.4 mg/L
  - Secondary: DF of 1 and RL of 0.4 mg/L
- W-306
  - Primary: DF of 2 and RL of 0.8 mg/L
  - Secondary: DF of 1 and RL of 0.4 mg/L

The targeted project specific RL discussed with the laboratory was 0.8 mg/L and both methods were able to achieve the RL excluding the secondary fluoride result at MW-72M. One primary and 3 secondary sample results were able to be analyzed with a single dilution achieving a lower RL of 0.4 mg/L at MW-77A, MW-78A, and W-306. Additionally, a matrix spike (MS) of fluoride was performed by the laboratory on MW-77A and the MS recoveries were within the laboratory specified limits.

The detected concentrations of sulfate and TDS at the locations included in the evaluation were consistent with historically detected concentrations. The laboratory was able to achieve the appropriate RLs for fluoride with the detected sulfate and TDS concentrations. Based on this, the high DFs and elevated RLs in the April 2023 monitoring event can be concluded to have been the result of an analyst over dilution.

The primary and secondary sample results were consistent with historically detected concentrations. The sample results had acceptable RLs and DFs per the project's specifications excluding fluoride results at MW-72M. The primary results were used for all analyses performed for the CCR monitoring evaluations and the secondary sample results were deemed generally useable for comparison purposes excluding fluoride results at MW-72M.

RECOMMENDATIONS

Based on the analytical data evaluation of groundwater samples collected during the second semi-annual CCR groundwater monitoring event in 2023, there were no records that were rejected during data validation, but imprecision between analytical results was observed at MW-72M. An over dilution was performed on the sample MW-72M, which is attributed to an analyst error. The performed dilution is at the discretion of the analyst and subject to performance errors

No significant discrepancies were noted between the results of the primary and secondary analytical analyses. Data was deemed generally comparable from primary to secondary analyses. The lowest RL of 0.4 mg/L was achieved with one and three collected samples using USEPA Method 300.0 and US Method 9056A, respectively. These reporting limits were obtained with a one times dilution factor. However, the US Method 9056A could not consistently achieve the lower reporting limit for the fluoride analysis. Reporting limits were achieved for the analysis of TDS and sulfate at similar and/or higher concentrations than historical ranges, and therefore the April 2023 high DFs are concluded to have been the result of analyst over dilution.

Based on the results of the evaluation; it is recommended for the CCR groundwater monitoring samples to continue to be submitted to Eurofins and request the USEPA Method 300.0 for analysis. The chosen method met all project requirements, and the laboratory is aware of required RLs and project specific BTVs. The selected analytical method will reduce the occurrence of variations as the CCR groundwater monitoring program continues and maintain overall program consistency. Additionally, it is recommended to continue monitoring for performance errors, like dilution errors and, if errors continue, to consider changing the contracted laboratory in order to maintain compliance.

REFERENCES

– Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities;

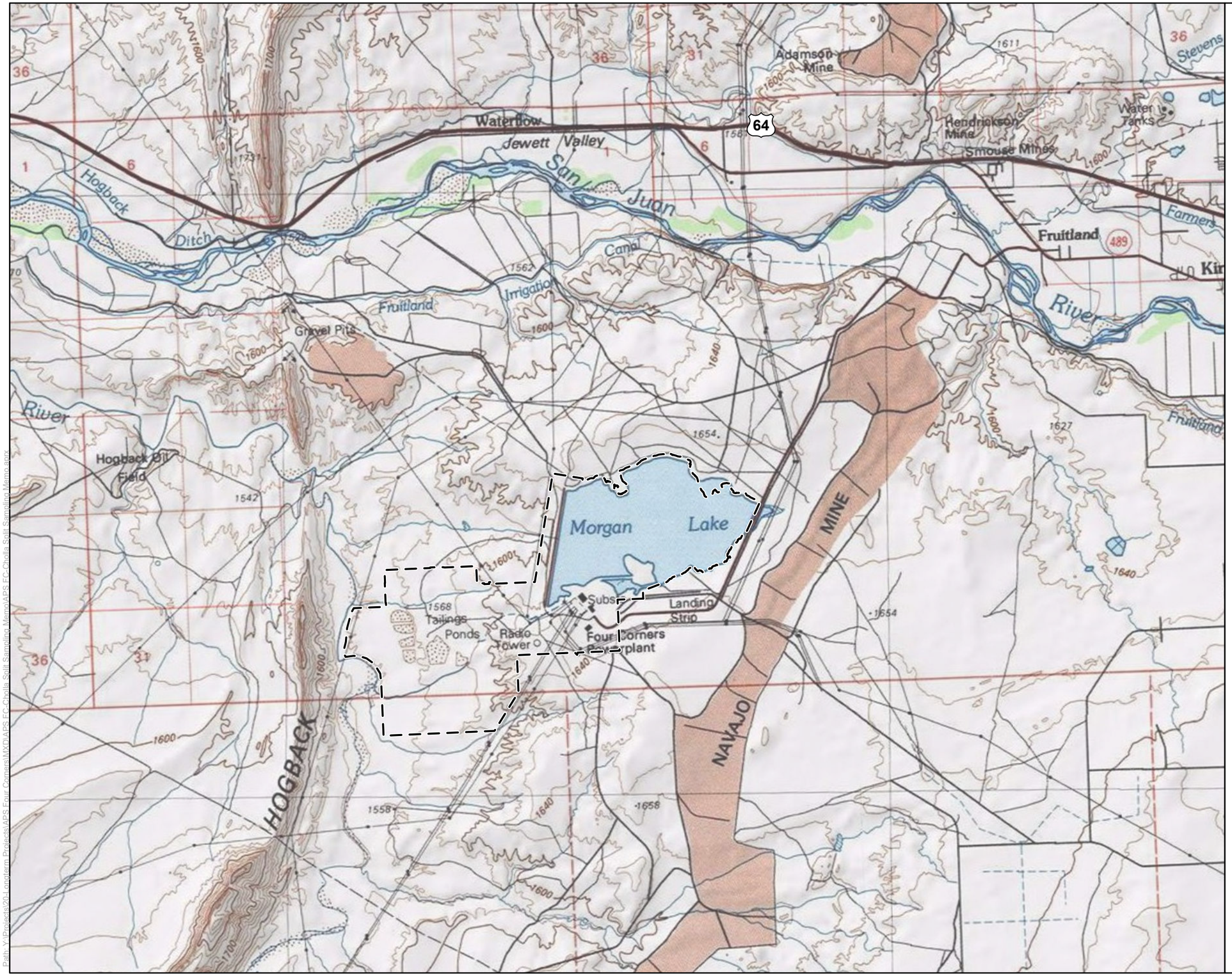
Final Rule promulgated April 17, 2015 with Amendments issued through November 12, 2020.

- Wood, 2022a. *Groundwater Sampling and Analysis Program*. Coal Combustion Residuals Rule Groundwater Monitoring System Compliance. Cholla Power Plant, Joseph City, Arizona. Prepared on behalf of APS. Report dated January 31, 2022.
- Wood, 2022b. *Groundwater Sampling and Analysis Program*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared on behalf of APS. Report dated August 3, 2022.
- WSP, 2023. Technical Evaluation of Laboratory Split Sampling Data Collected from Four Corners and Cholla Power Plants. Cholla Power Plant, Joseph City, Arizona. Four Corners Power Plant, Fruitland, New Mexico. Prepared on behalf of APS. Report dated January 30, 2022.
- WSP, 2024a. *Annual Groundwater Monitoring and Corrective Action Report for 2023*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Cholla Power Plant, Navajo County, Arizona. Prepared on behalf of APS. Report dated January 31, 2024.
- WSP, 2024b. *Annual Groundwater Monitoring and Corrective Action Report for 2023.* Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico, Prepared on behalf of APS. Report dated January 31, 2024.
- WSP, 2024c. *2023 Data Validation Report.* CCR Rule Compliance Groundwater Monitoring Data, Cholla Power Plant, Navajo County, Arizona. Prepared on behalf of APS. Report dated January 31, 2024.
- WSP, 2024d. *2023 Data Validation Report.* CCR Rule Compliance Groundwater Monitoring Data, Four Corners Power Plant, Fruitland, New Mexico. Prepared on behalf of APS. Report dated January 31, 2024.

ABBREVIATIONS AND ACRONYMS

APS	Arizona Public Service
BTV	Background threshold value
CCR	Coal Combustion Residuals
Cholla	Cholla Power Plant
CoC	Chain of Custody
DF	Dilution factor
EPA	Environmental Protection Agency
Eurofins	Eurofins Environment Testing America
Four Corners	Four Corners Power Plant
mg/L	milligrams per Liter
ml	milliliters
MDL	Method detection limits
MS	Matrix spike
MS/MSD	Matrix spike/matrix spike duplicate
QA	Quality assurance
QC	Quality control
RL	Reporting limit
RPD	Relative percent difference
SAP	Sampling and Analysis Plan
Sites	Cholla Power Plant and Four Corners Power Plant
TDS	Total dissolved solids
Tech Memo	Technical Memorandum
USEPA	United States Environmental Protection Agency
WSP	WSP USA Inc.

FIGURES





Area of Detail

Legend

Four Corners Power Plant Lease Boundary

0 0.5 1 Miles

N

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Four Corners Power Plant
Fruitland, New Mexico

FIGURE **1**

Site Location Map

Job No.	14-2023-2011
PM:	MBH
Date:	4/22/2024
Scale:	1"= 1 miles

The map shown here has been created with all due and reasonable care and is strictly for use with WSP USA Project Number 14-2023-2011. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. WSP USA assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

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Area of Detail

Legend

Cholla Power Plant Lease Boundary

0 0.5 1 Miles

N

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Cholla Power Plant
Navajo County, Arizona

FIGURE **2**

Site Location Map

Job No.	14-2023-2012
PM:	MBH
Date:	4/22/2024
Scale:	1"= 1 miles

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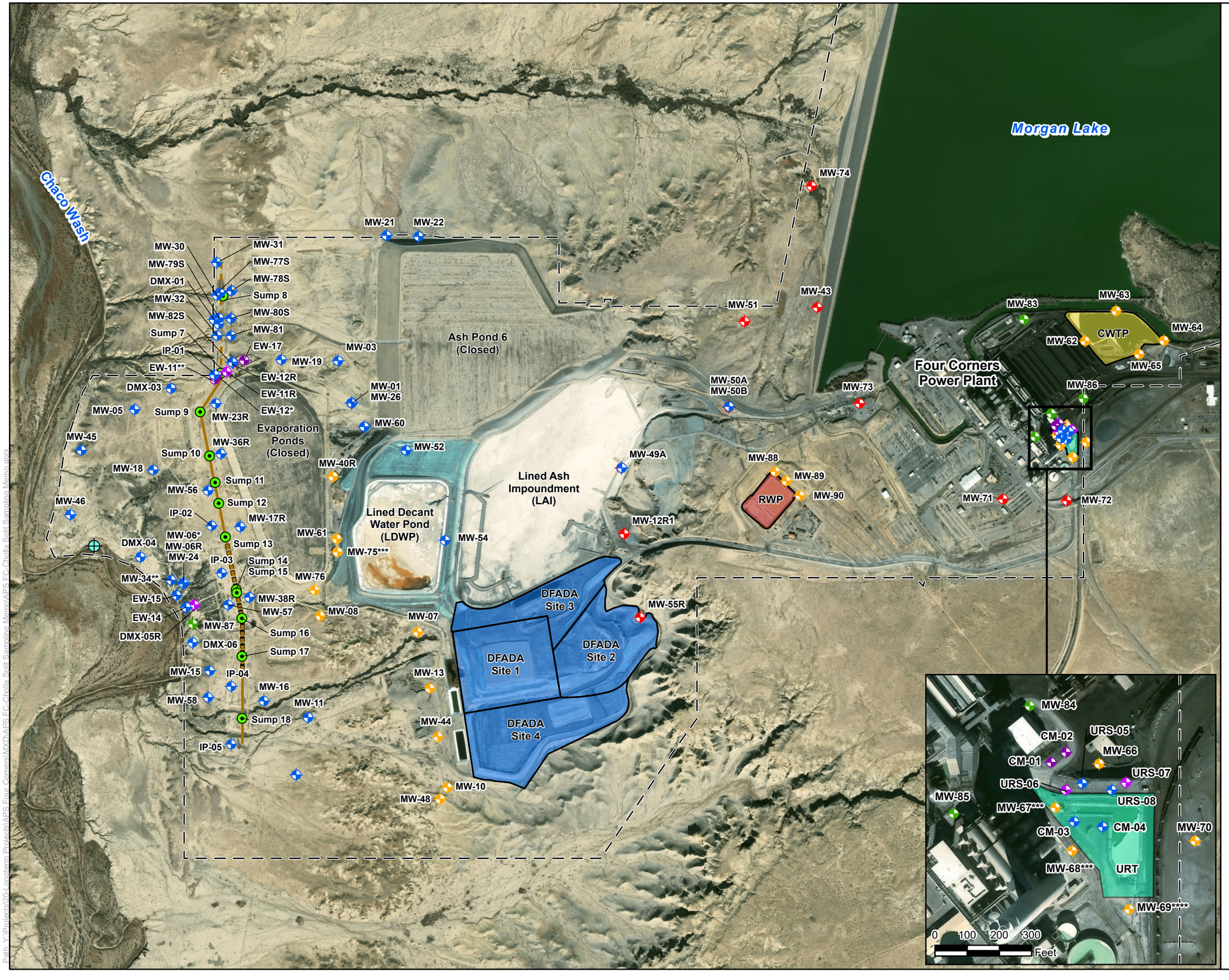

Legend

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

CCR Units

- Dry Fly Ash Disposal Area (DFADA)
- Combined Waste Treatment Pond (CWTP)
- Upper Retention Sump (URS)
- Return Water Pond (RWP)

Notes and Abbreviations:

MW-83	Well Identification
*	Well abandoned in June 2023
**	In previous reports MW-34 is also referred to as EW-34.
***	Sampled as part of the split sampling.
CCR	Coal Combustion Residuals
URT	Upper Retention Tank

0 700 1,400 Feet

N

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Four Corners Power Plant
Fruitland, New Mexico

FIGURE **3**

CCR Units and Monitoring System Summary

Job No.	14-2023-2011
PM:	MBH
Date:	4/22/2024
Scale:	1" = 1,400 feet

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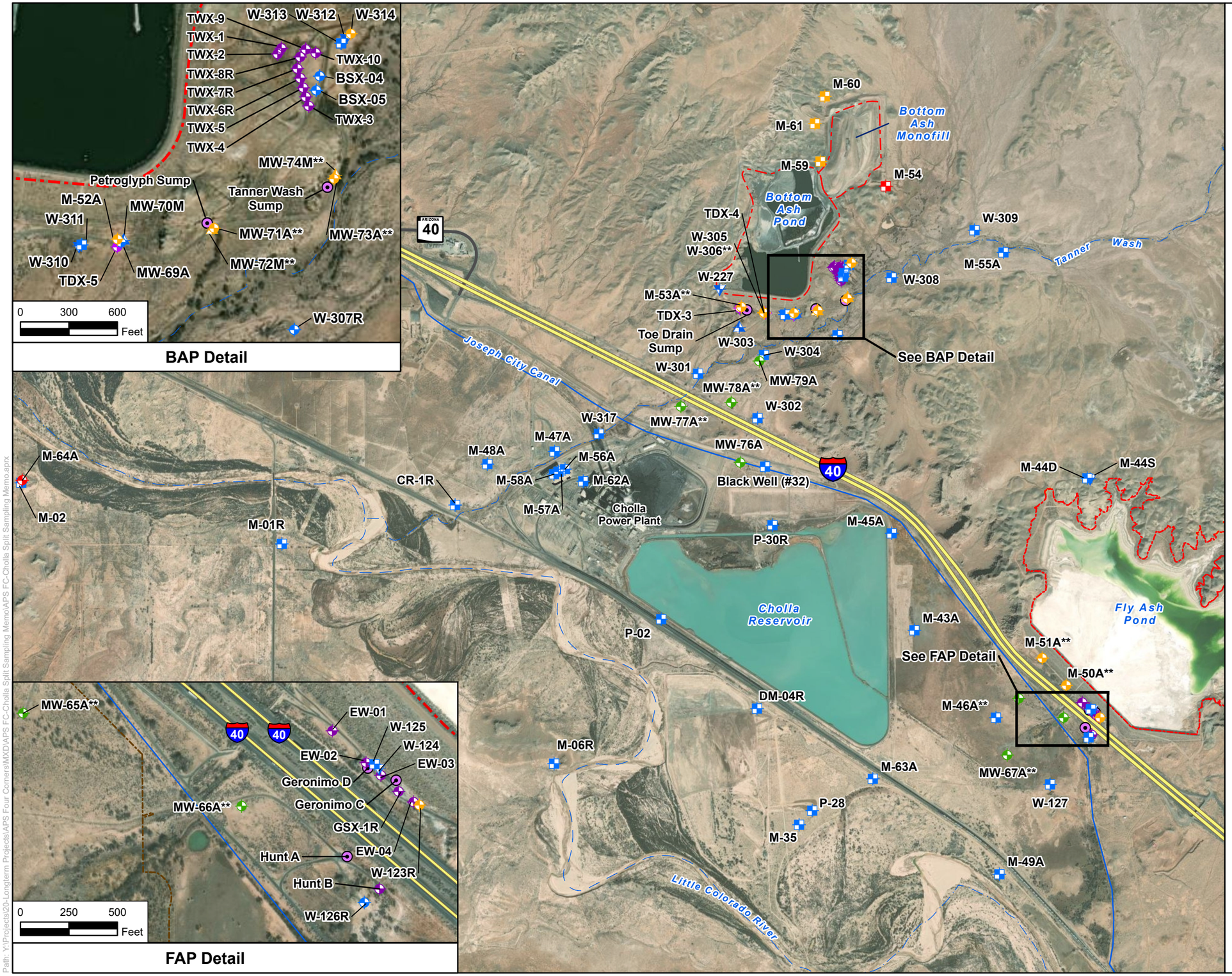

Legend

CCR Monitoring Well Location

- CCR Monitoring Well - Background, Alluvial
- CCR Monitoring Well - Background, C-Aquifer
- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, C-Aquifer
- CCR Monitoring Well - Downgradient Waste Boundary, Moenkopi Formation (Moqui Member)

Supplementary Site Monitoring Well Location

- C-Aquifer Monitoring Well; Alluvial Monitoring Well; Supplementary Monitoring Well,C-Aquifer
- Moenkopi Formation (Moqui Member) Monitoring Well
- Moenkopi Formation (Wupatki Member) Monitoring Well

Other Features

- Extraction Well
- Extraction (Inactive) Well
- Seepage Collection Sump
- Ephemeral Surface Water Feature
- Canal
- Evaporation Pond
- Approximate Extent of CCR Unit
- Approximate Extent of Closed CCR Unit

Notes:

In previous documents TDX-3 is also known as BSX-01, TDX-4 is also known as BSX-02, and TDX-5 is also known as BSX-03

TWX area is also referred to as the P-226 or B-226 area on some historical drawings and figures.

** Sampled as part of the split sampling

0 1,000 2,000 Feet

N

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Cholla Power Plant
Navajo County, Arizona

FIGURE 4 — **CCR Units and Groundwater Monitoring System Summary Map**

Job No.	14-2023-2012
PM:	MBH
Date:	4/22/2024
Scale:	1" = 2,000 feet

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Path: Y:\Projects\20-Longterm Projects\APS Four Corners\MXD\APS FC-Cholla Split Sampling Memo\APS FC-Cholla Split Sampling Memo.aprx

Legend

- CCR Compliance - Downgradient Waste Boundary Well Location
- Four Corners Power Plant Lease Boundary
- Dry Fly Ash Disposal Area (DFADA)
- Combined Waste Treatment Pond (CWTP)
- Upper Retention Sump (URS)
- Return Water Pond (RWP)

Notes and Abbreviations:

MW-67 Well Identification

N

0 700 1,400
Feet

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Four Corners Power Plant
Fruitland, New Mexico

FIGURE **5**

Split Sampling Locations

Job No.	14-2023-2011
PM:	MBH
Date:	4/22/2024
Scale:	1" = 945 feet

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Legend

CCR Monitoring Well Location

- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Moenkopi Formation (Moqui Member)

Supplementary Site Monitoring Well Location

- C-Aquifer Monitoring Well; Alluvial Monitoring Well; Supplementary Monitoring Well,C-Aquifer
- Ephemeral Surface Water Feature
- Canal
- Evaporation Pond
- Approximate Extent of CCR Unit
- Approximate Extent of Closed CCR Unit

Notes and Abbreviations:

MW-67A Well Identification

0 1,000 2,000 Feet

N

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Cholla Power Plant
Navajo County, Arizona

FIGURE **6**

Split Sampling Locations

Job No. 14-2023-2012
PM: MBH
Date: 4/22/2024
Scale: 1" = 1,062.05 feet

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TABLES

Table 1

Well Construction Details

Site	Well	CCR Compliance Well	CCR Unit	Well Designation	Hydrogeologic Unit	Date Installed	Borehole Depth [ft bgs]	Top of Casing Elevation [ft AMSL]	Ground Surface Elevation [ft AMSL]	Top of Screen [ft bgs]	Bottom of Screen [ft bgs]	Screen Length [ft]	Top Screen Elevation [ft AMSL]	Bottom Screen Elevation [ft AMSL]	Bottom Borehole Elevation [ft AMSL]
Cholla Power Plant	M-53A	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	9/22/2015	38	5044.68	5042.09	10	35	25	5,032.09	5,007.09	5,004.09
	MW-71A	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	9/28/2021	30	5050.680	5050.15	15.0	25.0	10	5,035.15	5,025.15	5,020.15
	MW-72M	Yes	BAP	Downgradient Boundary	Moenkopi - Moqui Member	9/19/2021	125	5049.670	5050.54	59.0	69.0	10	4,991.54	4,981.54	4,925.54
	MW-73A	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	9/23/2021	26	5049.190	5049.66	11.0	21.0	10	5,038.66	5,028.66	5,023.66
	MW-74M	Yes	BAP	Downgradient Boundary	Moenkopi - Moqui Member	9/23/2021	125	5049.070	5049.74	45.0	65.0	20	5,004.74	4,984.74	4,924.74
	MW-77A	Yes	BAP	Downgradient	Tanner Wash Alluvium/Moenkopi - Moqui Member	4/30/2021	65	5031.020	5029.78	44.0	64.0	20	4,985.78	4,965.78	4,964.78
	MW-78A	Yes	BAP	Downgradient	Tanner Wash Alluvium	5/4/2021	107	5036.950	5035.05	66.0	96.0	30	4,969.05	4,939.05	4,928.05
	W-306	Yes	BAP	Downgradient Boundary	Tanner Wash Alluvium	10/11/1983	52	5046.74	5044.78	30	50	20	5,014.78	4,994.78	4,992.78
	M-46A	No	FAP	Supplementary	LCR Alluvium	11/14/2011	40	5025.36	5023.36	22	34	12	5,001.36	4,989.36	4,983.36
	M-50A	Yes	FAP	Downgradient Boundary	LCR Alluvium	9/18/2015	32	5038.18	5035.65	9	29	20	5,026.65	5,006.65	5,003.65
	M-51A	Yes	FAP	Downgradient Boundary	LCR Alluvium	9/19/2015	14	5041.77	5039.10	7	12	5	5,032.10	5,027.10	5,025.10
	MW-65A	Yes	FAP	Downgradient	LCR Alluvium	11/15/2018	25	5027.86	5026.21	9	19	10	5,017.31	5,007.31	5,001.21
	MW-66A	Yes	FAP	Downgradient	LCR Alluvium	11/14/2018	60	5033.35	5032.46	24	49	25.1	5,008.86	4,983.76	4,972.46
	MW-67A	Yes	FAP	Downgradient	LCR Alluvium	11/16/2018	50	5025.38	5024.05	15	45	30.1	5,009.45	4,979.35	4,974.05
Four Corners Power Plant	MW-75	Yes	Multiunit 1	Downgradient Boundary	Weathered Lewis Shale	3/15/2017	41	5,126.80	5,124.80	29	39	10	5,095.80	5,085.80	5,083.80
	MW-67	Yes	URS	Downgradient Boundary	Pictured Cliffs Sandstone	9/11/2015	31	5,352.76	5,353.8	20	30	10	5,334.42	5,324.42	5,323.02
	MW-68	Yes	URS	Downgradient Boundary	Pictured Cliffs Sandstone	9/10/2015	30	5,353.58	5,353.95	19	29	10	5,334.95	5,324.95	5,323.95
	MW-69	Yes	URS	Downgradient Boundary	Pictured Cliffs Sandstone	9/9/2015	35	5,357.66	5,355.26	24	34	10	5,330.96	5,320.96	5,320.26

Source:

AECOM, 2017. CCR Monitoring Well Network Report and Certification, Four Corners Power Plant, Fruitland, New Mexico. AECOM Job No. 60531071. Report dated September 18, 2017

AMEC Earth & Infrastructure, Inc., 2012. *Well Completion Report, Installation of Aquifer Protection Permit Monitor Wells, Arizona Public Service Company, Cholla Power Plant, Navajo County, Arizona*AMEC Job No. 17-2011-4054. May 7, 2012.

Montgomery & Associates, 2017. Cholla Power Plant Coal Combustion Residuals Program–Design, Installation, and Evaluation of Completeness of Groundwater Monitoring Networks. Navajo County, Arizona. September 19, 2017.

Sakura Engineering & Surveying, 2017, 2019, and 2020

Wood Environment & Infrastructure Solutions, Inc. Surveying, 2018 and 2019.

Martin Land Surveys, Inc., 2020 and 2021.

Notes and Abbreviations:

AMSL - Above mean sea level (Vertical datum is NAVD 88)
BAP - Bottom Ash Pond
bgs - below ground surface
CCR - Coal combustion residuals
FAP - Fly Ash Pond
ft - feet
LCR - Little Colorado River
URS - Upper Retention Sump

Well Designation Descriptions:

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

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

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

Table 2

Four Corners Power Plant

Semi-Annual Event 1 2023 - Analytical Results

Sample Information						Fluoride Information			Analytical Results		
Field Sample ID	Lab Sample ID	Sample Date	Sample Location	CCR Unit	Well Designation	Associated Fluoride BTV (mg/L)	Laboratory Fluoride MDL (mg/L)	Fluoride Dilution Factor	Fluoride (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
FC-CCR-APV6-0523	550-202029-6	05/09/2023	Ash Pond	--	--	--	2.0	5	<2.0	9,600	16,000
FC-CCR-CM01-0523	550-202031-8	05/09/2023	CM-01	URS	Extraction	>RL	20	50	<20	9,300	16,000
FC-CCR-CM02-0523	550-202031-9	05/09/2023	CM-02	URS	Extraction	>RL	2.0	5	4.1	9,600	16,000
FC-CCR-DMX03-0523	550-201909-21	05/03/2023	DMX-03	Multiunit 1	Supplementary	0.8	80	200	<80	13,000	21,000
FC-CCR-DMX04-0523	550-201909-22	05/04/2023	DMX-04	Multiunit 1	Supplementary	0.8	20	50	<20	6,800	11,000
FC-CCR-DMX06-0523	550-202029-1	05/08/2023	DMX-06	Multiunit 1	Supplementary	0.8	2.0	5	<2.0	7,500	12,000
FC-CCR-MW05-0523	550-201909-25	05/03/2023	MW-05	Multiunit 1	Supplementary	0.8	80	200	<80	14,000	28,000
FC-CCR-MW06-0523	550-201909-26	05/04/2023	MW-06	Multiunit 1	Supplementary	0.8	80	200	<80	20,000	31,000
FC-CCR-MW07-0523	550-202030-1	05/08/2023	MW-07	Multiunit 1	Downgradient Boundary	0.8	2.0	5	<2.0	5,500	9,300
FC-CCR-MW08-0523	550-202030-2	05/08/2023	MW-08	Multiunit 1	Downgradient Boundary	0.8	2.0	5	<2.0	10,000	16,000
FC-CCR-MW11-0523	550-201909-27	05/05/2023	MW-11	DFADA	Supplementary	0.8	80	200	<80	60,000	100,000
FC-CCR-MW15-0523	550-202029-2	05/08/2023	MW-15	Multiunit 1	Supplementary	0.8	2.0	5	<2.0	6,800	11,000
FC-CCR-MW16-0523	550-202029-3	05/08/2023	MW-16	Multiunit 1	Supplementary	0.8	2.0	5	<2.0	13,000	21,000
FC-CCR-MW17R-0523	550-201909-29	05/04/2023	MW-17R	Multiunit 1	Supplementary	0.8	8.0	20	<8.0	4,000	6,200
FC-CCR-MW18-0523	550-201909-30	05/04/2023	MW-18	Multiunit 1	Supplementary	0.8	80	200	<80	16,000	29,000
FC-CCR-MW23R-0523	550-201909-33	05/03/2023	MW-23R	Multiunit 1	Supplementary	0.8	80	200	<80	8,800	14,000
FC-CCR-MW24-0523	550-201909-34	05/04/2023	MW-24	Multiunit 1	Supplementary	0.8	4.0	10	<4.0	11,000	24,000
FC-CCR-MW36R-0523	550-201909-36	05/04/2023	MW-36R	Multiunit 1	Supplementary	0.8	8.0	20	<8.0	3,900	6,800
FC-CCR-MW38R-0523	550-201909-37	05/05/2023	MW-38R	Multiunit 1	Supplementary	0.8	8.0	20	<8.0	5,400	8,900
FC-CCR-MW49A-0523	550-202030-3	05/08/2023	MW-49A	Multiunit 1	Background	0.8	20	50	<20	15,000	19,000
FC-CCR-MW56-0523	550-201909-38	05/04/2023	MW-56	Multiunit 1	Supplementary	0.8	80	200	<80	19,000	30,000
FC-CCR-MW57-0523	550-201909-40	05/05/2023	MW-57	Multiunit 1	Supplementary	0.8	40	100	<40	9,100	14,000
FC-CCR-MW61-0523	550-201909-16	05/04/2023	MW-61	Multiunit 1	Downgradient Boundary	0.8	4.0	10	<4.0	3,400	5,800
FC-CCR-MW62-0523	550-201909-1	05/07/2023	MW-62	CWTP	Downgradient Boundary	1.8	80	200	<80	3,500	6,400
FC-CCR-MW63-0523	550-201909-2	05/07/2023	MW-63	CWTP	Downgradient Boundary	2.3	8.0	20	<8	1,900	3,400
FC-CCR-MW65-0523	550-201909-4	05/07/2023	MW-65	CWTP	Downgradient Boundary	2.1	2.0	5	<2.0	300	900
FC-CCR-MW66-0523	550-201909-9	05/07/2023	MW-66	URS	Downgradient Boundary	>RL	80	200	<80	11,000	18,000
FC-CCR-MW67-0523	550-202031-1	05/09/2023	MW-67	URS	Downgradient Boundary	>RL	20	50	<20	13,000	19,000 J
FC-CCR-MW68-0523	550-202031-2	05/09/2023	MW-68	URS	Downgradient Boundary	>RL	20	50	<20	14,000	22,000
FC-CCR-MW69-0523	550-202031-3	05/09/2023	MW-69	URS	Downgradient Boundary	>RL	2.0	5	4.1	4,800	8,600 J
FC-CCR-MW70-0523	550-201909-10	05/07/2023	MW-70	URS	Downgradient Boundary	>RL	80	200	<80	5,600	11,000
FC-CCR-MW71-0523	550-202031-4	05/08/2023	MW-71	URS/CWTP	Background	>RL	2.0	5	<2.0	10,000	17,000
FC-CCR-MW72-0523	550-202031-5	05/08/2023	MW-72	URS/CWTP	Background	>RL	2.0	5	4.2	9,800	15,000
FC-CCR-MW73-0523	550-201909-11	05/07/2023	MW-73	URS/CWTP	Background	>RL	80	200	<80	8,200	12,000
FC-CCR-MW75-0523	550-201909-17	05/04/2023	MW-75	Multiunit 1	Downgradient Boundary	0.8	4.0	10	<4.0	4,500	6,800
FC-CCR-MW82S-0523	550-201909-46	05/05/2023	MW-82S	--	Supplementary	--	40	100	<40	6,100	9,800

Table 2

Four Corners Power Plant

Semi-Annual Event 1 2023 - Analytical Results

Field Sample ID	Lab Sample ID	Sample Date	Sample Location	CCR Unit	Well Designation	Associated Fluoride BTV (mg/L)	Laboratory Fluoride MDL (mg/L)	Fluoride Dilution Factor	Fluoride (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
FC-CCR-MW83-0523	550-201909-12	05/07/2023	MW-83	URS	Downgradient	>RL	8.0	20	<8.0	3,400	5,300
FC-CCR-MW84-0523	550-202031-6	05/09/2023	MW-84	URS	Downgradient	>RL	2.0	5	<2.0	6,000	9,200
FC-CCR-FD01-0523	550-202031-10	05/09/2023	MW-84	URS	Downgradient	>RL	2.0	5	<2.0	6,000	9,600
FC-CCR-MW85-0523	550-202031-7	05/09/2023	MW-85	URS	Downgradient	>RL	2.0	5	<2.0	6,100	10,000
FC-CCR-MW86-0523	550-201909-13	05/07/2023	MW-86	URS	Downgradient	>RL	80	200	<80	5,600	9,300
FC-CCR-FD02-0523	550-201909-14	05/07/2023	MW-86	URS	Downgradient	>RL	80	200	<80	5,400	9,400
FC-CCR-MW87-0523	550-201909-18	05/05/2023	MW-87	Multiunit 1	Downgradient	0.8	80	200	<80	33,000	54,000 J

Notes and Abbreviations:

BTV - Background Threshold Value
CCR - Coal Combustion Residual
CWTP - Combined Waste Treatment Pond
DFADA - Dry Fly Ash Disposal Area
ID - Identification
mg/L - Milligrams per Liter
MDL - method detection limit
Method Detection Limit exceeded the associated BTV

[1] - Sample analyzed by USEPA Method 300.0
[2] - Sample analyzed by US Method SM 2540C
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 3

Cholla Power Plant

Semi-Annual 1 2023 - Analytical Results

Sample Information					Fluoride Information			Analytical Results		
Field Sample ID	Lab Sample ID	Sample Date	Sample Location	CCR Unit	Associated Fluoride BTV (mg/L)	Laboratory Fluoride MDL (mg/L)	Fluoride Dilution Factor	Fluoride [1] (mg/L)	Sulfate [1] (mg/L)	Total Dissolved Solids [2] (mg/L)
CH-CCR-BAPTD-0423	550-201346-15	04/26/2023	BAPTD	BAP	0.8	4.0	10	<4.0	3,200	8,300
CH-CCR-BudHunt-0423	550-201150-40	04/19/2023	Bud Hunt Well	FAP	0.8	0.80	2	<0.80	260	1,100
CH-CCR-GeronimoC-0423	550-201346-37	04/25/2023	Geronimo C	FAP	0.8	40	100	<40	4,800	16,000
CH-CCR-GeronimoD-0423	550-201346-39	04/25/2023	Geronimo D	FAP	0.8	8.0	20	8.2	4,500	16,000
CH-CCR-HuntB-0423	550-201346-41	04/25/2023	Hunt	FAP	0.8	4.0	10	4.2	3,100	12,000
CH-CCR-M43A-0423	550-200849-1	04/15/2023	M-43A	FAP	0.8	4.0	10	<4.0	2,200	3,500
CH-CCR-M44D-0423	550-200849-3	04/13/2023	M-44D	FAP	0.8	0.80	2	<0.80	320 J	4,600 J
CH-CCR-M45A-0423	550-200849-4	04/15/2023	M-45A	FAP	0.8	4.0	10	<4.0	2,400	2,600
CH-CCR-M46A-0423	550-200849-5	04/15/2023	M-46A	FAP	0.8	4.0	10	<4.0	2,600	11,000
CH-CCR-M50A-0423	550-201150-31	04/17/2023	MW-50A	FAP	0.8	4.0	10	<4.0	3,000	7,400
CH-CCR-M51A-0423	550-201150-33	04/17/2023	M-51A	FAP	0.8	4.0	10	5.8	2,800	12,000
CH-CCR-M52A-0423	550-201150-1	04/19/2023	M-52A	BAP	0.8	4.0	10	<4.0	2,600	11,000
CH-CCR-M53A-0423	550-201150-3	04/19/2023	M-53A	BAP	0.8	2.0	5	2.4	3,100	7,700
CH-CCR-M54-0423	550-200839-1	04/13/2023	M-54	BAM	1.8	0.80	2	1.4	370 J	3,100 J
CH-CCR-M55A-0423	550-201150-5	04/20/2023	M-55A	BAP	0.8	2.0	5	<2.0	3,500	12,000
CH-CCR-M59-0423	550-200839-2	04/12/2023	M-59	BAM	1.8	0.80	2	1.4	360 J	2,800 J
CH-CCR-FD01-0423	550-200839-4	04/12/2023	M-59	BAM	1.8	0.80	2	1.4	350 J	1,100 J
CH-CCR-M60-0523	550-202028-1	05/10/2023	M-60	BAM	1.7	0.40	1	1.4	370	2,800
CH-CCR-M61-0423	550-200839-3	04/12/2023	M-61	BAM	1.6	0.80	2	1.4	350 J	2,900 J
CH-CCR-M63A-0423	550-200849-7	04/15/2023	M-63A	FAP	0.8	4.0	10	<4.0	630	1100 J
CH-CCR-FD05-0423	550-200849-16	04/15/2023	M-63A	FAP	0.8	4.0	10	<4.0	620	1900 J
CH-CCR-M64A-0423	550-201150-35	04/17/2023	M-64A	FAP/BAP	0.8	10	25	<10	3,700	12,000
CH-CCR-M65A-0423	550-200849-10	04/15/2023	MW-65A	FAP	0.8	4.0	10	<4.0	2,900	8,700
CH-CCR-M66A-0423	550-200849-12	04/15/2023	MW-66A	FAP	0.8	4.0	10	<4.0	3,000	10,000
CH-CCR-M67A-0423	550-200849-14	04/15/2023	MW-67A	FAP	0.8	4.0	10	<4.0	1,600	5,400
CH-CCR-MW69A-0423	550-201150-7	04/19/2023	MW-69A	BAP	0.8	2.0	5	<2.0	3,100	8,000
CH-CCR-MW70M-0423	550-201150-9	04/19/2023	MW-70M	BAP	0.8	2.0	5	<2.0	2,900	7,700
CH-CCR-MW71A-0423	550-201150-11	04/19/2023	MW-71A	BAP	0.8	2.0	5	3.1	3,000	7,400
CH-CCR-MW72M-0423	550-201150-13	04/19/2023	MW-72M	BAP	0.8	40	100	<40	1,200	74,000
CH-CCR-MW73A-0423	550-201150-15	04/20/2023	MW-73A	BAP	0.8	2.0	5	3.9	3,300	8,300
CH-CCR-MW74M-0423	550-201150-17	04/20/2023	MW-74M	BAP	0.8	4.0	10	<4.0	2,600	7,400
CH-CCR-MW77A-0423	550-201346-9	04/25/2023	MW-77A	BAP	0.8	4.0	10	<4.0	4,200	11,000
CH-CCR-MW78A-0423	550-201346-11	04/24/2023	MW-78A	BAP	0.8	4.0	10	<4.0	2,400	8,000

Table 3

Cholla Power Plant

Semi-Annual 1 2023 - Analytical Results

Sample Information					Fluoride Information			Analytical Results		
Field Sample ID	Lab Sample ID	Sample Date	Sample Location	CCR Unit	Associated Fluoride BTV (mg/L)	Laboratory Fluoride MDL (mg/L)	Fluoride Dilution Factor	Fluoride [1] (mg/L)	Sulfate [1] (mg/L)	Total Dissolved Solids [2] (mg/L)
CH-CCR-MW79A-0423	550-200842-5	04/14/2023	MW-79A	BAP	0.8	2.0	5	<2.0	2400 J	7400 J
CH-CCR-FD02-0423	550-200842-1	04/14/2023	MW-79A	BAP	0.8	2.0	5	<2.0	2400 J	3000 J
CH-CCR-Petroglyph-0423	550-201346-17	04/26/2023	Petroglyph	BAP	0.8	4.0	10	<4.0	3,100	7,400
CH-CCR-TannerWash-0423	550-201346-19	04/26/2023	Tanner Wash Seep	BAP	0.8	8.0	20	<8.0	3,200	7,900
CH-CCR-TWX10-0423	550-201346-31	04/26/2023	TWX-10	BAP	0.8	8.0	20	<8.0	3,000	9,600
CH-CCR-TWX3-0423	550-201346-21	04/26/2023	TWX-3	BAP	0.8	8.0	20	<8.0	3,100	8,100
CH-CCR-TWX5-0423	550-201346-23	04/26/2023	TWX-5	BAP	0.8	8.0	20	<8.0	3,100	8,000
CH-CCR-TWX6-0423	550-201346-25	04/26/2023	TWX-6	BAP	0.8	8.0	20	<8.0	3,100	7,400
CH-CCR-TWX7-0423	550-201346-27	04/26/2023	TWX-7	BAP	0.8	8.0	20	<8.0	3,100	7,800
CH-CCR-TWX9-0423	550-201346-29	04/26/2023	TWX-9	BAP	0.8	20	50	<20	3,100	8,300
CH-CCR-W123R-0423	550-201150-37	04/17/2023	W-123R	FAP	0.8	4.0	10	5.9	3,300	13,000
CH-CCR-W125-0423_A	550-201150-39	04/17/2023	W-125	FAP	0.8	0.80	2	<0.80	320	1,800
CH-CCR-W126R-0423	550-200849-8	04/15/2023	W-126R	FAP	0.8	4.0	10	5.3	3,700	--
CH-CCR-W301-0423	550-201150-19	04/18/2023	W-301	BAP	0.8	4.0	10	<4.0	3,800	14,000
CH-CCR-W302-0423	550-201346-1	04/24/2023	W-302	BAP	0.8	4.0	10	<4.0	2,100	8,300
CH-CCR-W303-0423	550-201150-21	04/18/2023	W-303	BAP	0.8	4.0	10	<4.0	3,400	9,200
CH-CCR-W304-0423	550-201346-3	04/24/2023	W-304	BAP	0.8	4.0	10	<4.0	2,600	7,700
CH-CCR-W305-0423	550-200842-3	04/14/2023	W-305	BAP	0.8	2.0	5	<2.0	2300 J	7200 J
CH-CCR-W306-0423	550-201150-23	04/19/2023	W-306	BAP	0.8	4.0	10	<4.0	12,000	19,000
CH-CCR-W307R-0423	550-201346-5	04/24/2023	W-307R	BAP	0.8	4.0	10	<4.0	2,800	8,000
CH-CCR-FD03-0423	550-201346-7	04/24/2023	W-307R	BAP	0.8	4.0	10	<4.0	2,900	8,200
CH-CCR-W308-0423	550-201150-25	04/20/2023	W-308	BAP	0.8	4.0	10	<4.0	2,600	8,800
CH-CCR-W309-0423	550-201150-27	04/20/2023	W-309	BAP	0.8	4.0	10	<4.0	3,100	7,200
CH-CCR-W314-0423	550-201150-29	04/20/2023	W-314	BAP	0.8	4.0	10	<4.0	2,500	7,300
CH-CCR-W317-0423	550-200842-7	04/14/2023	W-317	BAP	0.8	2.0	5	<2.0	690 J	7000 J
CH-CCR-FD04-0423	550-200842-8	04/14/2023	W-317	BAP	0.8	2.0	5	<2.0	690 J	7000 J

Notes and Abbreviations:

BAM - Bottom Ash Monofill

BAP - Bottom Ash Pond

BTV - Background Threshold Value

CCR -Coal Combustion Residual

FAP - Fly Ash Pond

ID - Identification

mg/L - Milligrams per Liter

[1] - Sample analyzed by USEPA Method 300.0

[2] - Sample analyzed by US Method SM 2540C

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Method Detection Limit exceeded the associated BTV

Table 4

Sample Locations

Site	Field Sample ID	Lab Sample ID	Well Location	CCR Unit
Four Corners Power Plant	FC-CCR-MW67-1123	550-210593-1	MW-67	URS
	FC-CCR-MW68-1123	550-210593-2	MW-68	URS
	FC-CCR-MW69-1123	550-210593-3	MW-69	URS
	FC-CCR-MW75-1123	550-210429-3	MW-75	Multiunit 1
Cholla Power Plant	CH-CCR-M46A-1023	550-209471-4	M-46A	FAP
	CH-CCR-M50A-1023	550-209471-6	M-50A	FAP
	CH-CCR-M51A-1023	550-209471-8	M-51A	FAP
	CH-CCR-M65A-1023	550-209471-10	MW-65A	FAP
	CH-CCR-M66A-1023	550-209471-12	MW-66A	FAP
	CH-CCR-M67A-1023	550-209471-14	MW-67A	FAP
	CH-CCR-M53A-1023	550-209476-1	M-53A	BAP
	CH-CCR-MW71A-1023	550-209476-7	MW-71A	BAP
	CH-CCR-MW72M-1023	550-209476-9	MW-72M	BAP
	CH-CCR-MW73A-1023	550-209476-11	MW-73A	BAP
	CH-CCR-MW74M-1023	550-209476-13	MW-74M	BAP
	CH-CCR-MW77A-1023	550-209476-15	MW-77A	BAP
	CH-CCR-MW78A-1023	550-209609-1	MW-78A	BAP
	CH-CCR-W306-1023	550-209476-21	W-306	BAP

Notes and Abbreviations:

BAP - Bottom Ash Pond

CCR - Coal combustion residuals

FAP - Fly Ash Pond

ID - Identification

URS - Upper Retention Sump

Table 5

Four Corners Power Plant

Semi-Annual Event 2 2023 - Analytical Results

Field Sample ID	Lab Sample ID	Sample Date	Sample Location	Fluoride BTVs (mg/L)	Fluoride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
				US EPA Laboratory Analysis Method	300.0	9056A	300.0	SM2540C
FC-CCR-MW67-1123	550-210593-1	11/13/2023	MW-67	>RL	13	13	13,000	20,000
FC-CCR-MW68-1123	550-210593-2	11/11/2023	MW-68	>RL	13	12	15,000	24,000
FC-CCR-MW69-1123	550-210593-3	11/11/2023	MW-69	>RL	4.7	4.7	5,000	8,900
FC-CCR-MW75-1123	550-210429-3	11/8/2023	MW-75	0.8	1.2	1.2	4,600	7,100

Notes and Abbreviations:

> - greater than

BTV - Background Threshold Value

ID - Identification

mg/L - Milligrams per Liter

RL - Laboratory Reporting Limit

Table 6

Cholla Power Plant

Semi-Annual Event 2 Analytical Results

Field Sample ID	Lab Sample ID	Sample Date	Sample Location	Fluoride BTVs (mg/L)	Fluoride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
US EPA Laboratory Analysis Method					300.0	9056A	300.0	SM2540C
CH-CCR-M46A-1023	550-209471-4	10/16/2023	M-46A	0.8	1.0	1.1	2,800	12,000
CH-CCR-M50A-1023	550-209471-6	10/17/2023	M-50A	0.8	2.5	2.4	3,000	7,500
CH-CCR-M51A-1023	550-209471-8	10/17/2023	M-51A	0.8	5.6	5.7	2,800	14,000
CH-CCR-M53A-1023	550-209476-1	10/19/2023	M-53A	0.8	2.4	2.7	2,900	7,800
CH-CCR-M65A-1023	550-209471-10	10/16/2023	MW-65A	0.8	3.0	3.0	3,700	12,000
CH-CCR-M66A-1023	550-209471-12	10/16/2023	MW-66A	0.8	1.4	1.4	3,000	9,900
CH-CCR-M67A-1023	550-209471-14	10/16/2023	MW-67A	0.8	0.80	0.83	1,800	5,000
CH-CCR-MW71A-1023	550-209476-7	10/18/2023	MW-71A	0.8	3.4	3.5	1,200	7,800
CH-CCR-MW72M-1023	550-209476-9	10/18/2023	MW-72M	0.8	<0.80	<80	1,800	61,000
CH-CCR-MW73A-1023	550-209476-11	10/18/2023	MW-73A	0.8	4.2	4.3	3,300	8,900
CH-CCR-MW74M-1023	550-209476-13	10/18/2023	MW-74M	0.8	1.4	1.3	2,600	7,400
CH-CCR-MW77A-1023	550-209476-15	10/17/2023	MW-77A	0.8	<0.80	0.50	4,700	11,000
CH-CCR-MW78A-1023	550-209609-1	10/23/2023	MW-78A	0.8	<0.40	<0.40	2,300	7,900
CH-CCR-W306-1023	550-209476-21	10/19/2023	W-306	0.8	1.3	1.0	11,000	18,000

Notes and Abbreviations:

BTV - Background Threshold Value

ID - Identification

mg/L - Milligrams per Liter

Table 7

Comparison of Fluoride Results by Method

Site	Field Sample ID	Lab Sample ID	Sample Date	Fluoride by USEPA Method 300.0				Fluoride by US Method SW9056				RPD	ABS Value Difference
				Lab Result	RL	Dilution Factor	Lab Units	Lab Result	RL	Dilution Factor	Lab Units		
Four Corners	FC-CCR-MW67-1123	550-210593-1	11/13/2023	13	0.8	2	mg/L	13	0.8	2	mg/L	0.0%	0.0
Four Corners	FC-CCR-MW68-1123	550-210593-2	11/11/2023	13	0.8	2	mg/L	12	0.8	2	mg/L	8.0%	1.0
Four Corners	FC-CCR-MW69-1123	550-210593-3	11/11/2023	4.7	0.8	2	mg/L	4.7	0.8	2	mg/L	0.0%	0.0
Four Corners	FC-CCR-MW75-1123	550-210429-3	11/8/2023	1.2	0.8	2	mg/L	1.2	0.8	2	mg/L	0.0%	0.0
Cholla	CH-CCR-M46A-1023	550-209471-4	10/16/2023	1.0	0.8	2	mg/L	1.1	0.8	2	mg/L	9.5%	0.10
Cholla	CH-CCR-M50A-1023	550-209471-6	10/17/2023	2.5	0.8	2	mg/L	2.4	0.8	2	mg/L	4.1%	0.10
Cholla	CH-CCR-M51A-1023	550-209471-8	10/17/2023	5.6	0.8	2	mg/L	5.7	0.8	2	mg/L	1.8%	0.10
Cholla	CH-CCR-M53A-1023	550-209476-1	10/19/2023	2.4	0.8	2	mg/L	2.7	0.8	2	mg/L	12%	0.30
Cholla	CH-CCR-M65A-1023	550-209471-10	10/16/2023	3.0	0.8	2	mg/L	3.0	0.8	2	mg/L	0.0%	0.00
Cholla	CH-CCR-M66A-1023	550-209471-12	10/16/2023	1.4	0.8	2	mg/L	1.4	0.8	2	mg/L	0.0%	0.00
Cholla	CH-CCR-M67A-1023	550-209471-14	10/16/2023	0.8	0.8	2	mg/L	0.83	0.8	2	mg/L	3.7%	0.03
Cholla	CH-CCR-MW71A-1023	550-209476-7	10/18/2023	3.4	0.8	2	mg/L	3.5	0.8	2	mg/L	2.9%	0.10
Cholla	CH-CCR-MW72M-1023	550-209476-9	10/18/2023	<0.8	0.8	2	mg/L	<80	80	200	mg/L	196% [A]	79
Cholla	CH-CCR-MW73A-1023	550-209476-11	10/18/2023	4.2	0.8	2	mg/L	4.3	0.8	2	mg/L	2.4%	0.10
Cholla	CH-CCR-MW74M-1023	550-209476-13	10/18/2023	1.4	0.8	2	mg/L	1.3	0.8	2	mg/L	7.4%	0.10
Cholla	CH-CCR-MW77A-1023	550-209476-15	10/17/2023	<0.8	0.8	2	mg/L	0.5	0.4	1	mg/L	46%	0.30
Cholla	CH-CCR-MW78A-1023	550-209609-1	10/23/2023	<0.4	0.4	1	mg/L	<0.4	0.4	1	mg/L	0% [A]	0.0
Cholla	CH-CCR-W306-1023	550-209476-21	10/19/2023	1.3	0.8	2	mg/L	1.0	0.4	1	mg/L	0.0%	0.30

Notes and Abbreviations:

[A] - The RPD is comparing non-detect values

< - less than

ABS - Absolute

CCR - Coal combustion residuals

ID - Identification

mg/L - Milligrams per Liter

RL - Laboratory Reporting Limit

RPD - Relative Percent Difference

ATTACHMENT

A

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

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JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plant (FAP)

JOB NUMBER

550-209471-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

my EOL

Job Notes

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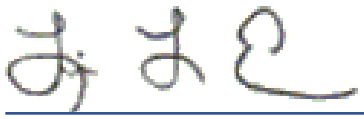
The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Revision 1

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Definitions/Glossary

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
D5	Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Metals

Qualifier	Qualifier Description
L3	The associated blank spike recovery was above method acceptance limits.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter

General Chemistry

Qualifier	Qualifier Description
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-209471-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-209471-1

REVISION

The report being provided is a revision of the original report sent on 11/10/2023. The report (revision 1) is being revised due to Final report was sent out with duplicate 200.8 metals.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/20/2023 3:01 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.9°C, 2.1°C, 2.3°C, 3.1°C, 3.2°C and 4.6°C

HPLC/IC
Method 300_ORGFMS: The following samples were diluted due to the nature of the sample matrix: CH-CCR-M43A-1023 (550-209471-1), CH-CCR-M45A-1023 (550-209471-3), CH-CCR-W125-1023 (550-209471-16) and CH-CCR-BudHunt-1023 (550-209471-19). Elevated reporting limits (RLs) are provided. The following samples contain an analyte not part of the method profile which interferes with fluoride providing an indiscernible chromatogram. A 2x dilution is required.

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

Metals
Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-309754 and analytical batch 550-309936 was outside acceptance criteria for Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. CH-CCR-M43A-1023 (550-209471-1), CH-CCR-M45A-1023 (550-209471-3), CH-CCR-M46A-1023 (550-209471-4), CH-CCR-M50A-1023 (550-209471-6), CH-CCR-M51A-1023 (550-209471-8), CH-CCR-M65A-1023 (550-209471-10), CH-CCR-M66A-1023 (550-209471-12), CH-CCR-M67A-1023 (550-209471-14), CH-CCR-W125-1023 (550-209471-16), CH-CCR-W-126R-1023 (550-209471-17) and CH-CCR-BudHunt-1023 (550-209471-19)

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

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

Sample Summary

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-209471-1	CH-CCR-M43A-1023	Water	10/16/23 16:23	10/20/23 15:01
550-209471-2	CH-CCR-M43A-1023	Water	10/16/23 16:23	10/20/23 15:01
550-209471-3	CH-CCR-M45A-1023	Water	10/17/23 13:38	10/20/23 15:01
550-209471-4	CH-CCR-M46A-1023	Water	10/16/23 13:22	10/20/23 15:01
550-209471-5	CH-CCR-M46A-1023	Water	10/16/23 13:22	10/20/23 15:01
550-209471-6	CH-CCR-M50A-1023	Water	10/17/23 10:21	10/20/23 15:01
550-209471-7	CH-CCR-M50A-1023	Water	10/17/23 10:21	10/20/23 15:01
550-209471-8	CH-CCR-M51A-1023	Water	10/17/23 09:37	10/20/23 15:01
550-209471-9	CH-CCR-M51A-1023	Water	10/17/23 09:37	10/20/23 15:01
550-209471-10	CH-CCR-M65A-1023	Water	10/16/23 11:19	10/20/23 15:01
550-209471-11	CH-CCR-M65A-1023	Water	10/16/23 11:19	10/20/23 15:01
550-209471-12	CH-CCR-M66A-1023	Water	10/16/23 10:15	10/20/23 15:01
550-209471-13	CH-CCR-M66A-1023	Water	10/16/23 10:15	10/20/23 15:01
550-209471-14	CH-CCR-M67A-1023	Water	10/16/23 15:15	10/20/23 15:01
550-209471-15	CH-CCR-M67A-1023	Water	10/16/23 15:15	10/20/23 15:01
550-209471-16	CH-CCR-W125-1023	Water	10/17/23 11:16	10/20/23 15:01
550-209471-17	CH-CCR-W-126R-1023	Water	10/16/23 09:29	10/20/23 15:01
550-209471-18	CH-CCR-W-126R-1023	Water	10/16/23 09:29	10/20/23 15:01
550-209471-19	CH-CCR-BudHunt-1023	Water	10/17/23 08:40	10/20/23 15:01
550-209471-20	CH-CCR-BudHunt-1023	Water	10/17/23 08:40	10/20/23 15:01

Detection Summary

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M43A-1023 — Lab Sample ID: 550-209471-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	210	D2	40		mg/L	20		300.0	Total/NA
Sulfate	1900	D2	40		mg/L	20		300.0	Total/NA
Boron	0.49		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.9		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.6		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.15		0.050		mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0035		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.018	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.0030	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.37		0.050		mg/L	1		350.1	Total/NA
Total Dissolved Solids	6500		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	1.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.8		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M43A-1023 — Lab Sample ID: 550-209471-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	1.8		0.10		mg/L	1		200.7	Dissolved
Manganese	1.6		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.3		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-M45A-1023 — Lab Sample ID: 550-209471-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	700	D2	40		mg/L	20		300.0	Total/NA
Sulfate	2100	D2	200		mg/L	100		300.0	Total/NA
Boron	1.0		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	600		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.27		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0045		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.013	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.0029	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Total Dissolved Solids	4700		100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M46A-1023 — Lab Sample ID: 550-209471-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2	40		mg/L	20		300.0	Total/NA
Fluoride	1.0	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	2800	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.1		0.80		mg/L	2		9056A	Total/NA
Boron	0.64		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	950		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	5.3		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M46A-1023 (Continued) — Lab Sample ID: 550-209471-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Potassium	13		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3200		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Magnesium	200		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.35		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0063		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.020	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.0085		0.0050		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.0091	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	1.1		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	230		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000		100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	8.3	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	3.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	3.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	3.8		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M46A-1023 — Lab Sample ID: 550-209471-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	1.9		0.10		mg/L	1		200.7	Dissolved
Manganese	3.9		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.6		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-M50A-1023 — Lab Sample ID: 550-209471-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1900	D2	100		mg/L	50		300.0	Total/NA
Fluoride	2.5	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	3000	D2	100		mg/L	50		300.0	Total/NA
Fluoride	2.4	D1	0.80		mg/L	2		9056A	Total/NA
Boron	3.0		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	570		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.31		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.7		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1600		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Magnesium	180		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.50		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0052		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0084	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.0083	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7500		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	8.1	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	2.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.8		0.50		mg/L	1		SM 5310B	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M50A-1023 — Lab Sample ID: 550-209471-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.30		0.010		mg/L	1		200.7	Dissolved
Arsenic	5.2		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-M51A-1023 — Lab Sample ID: 550-209471-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	6300	D2	200		mg/L	100		300.0	Total/NA
Fluoride	5.6	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	2800	D2	100		mg/L	50		300.0	Total/NA
Fluoride	5.7	D1	0.80		mg/L	2		9056A	Total/NA
Boron	27		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	860		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	27		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3200		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Magnesium	250		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.54		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.032		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.0077	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.16	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.12		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	77		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	77		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	14000		200		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	8.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	2.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M51A-1023 — Lab Sample ID: 550-209471-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	1.1		0.010		mg/L	1		200.7	Dissolved
Arsenic	31		5.0		ug/L	10		200.8 LL	Dissolved

Client Sample ID: CH-CCR-M65A-1023 — Lab Sample ID: 550-209471-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	4300	D2	100		mg/L	50		300.0	Total/NA
Fluoride	3.0	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	3700	D2	100		mg/L	50		300.0	Total/NA
Fluoride	3.0	D1	0.80		mg/L	2		9056A	Total/NA
Boron	14		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	830		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.43		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.22		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	33		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2900		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Magnesium	360		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.73		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M65A-1023 (Continued) — Lab Sample ID: 550-209471-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0040		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.021	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.18	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	230		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000		100		mg/L	1		SM 2540C	Total/NA
pH	6.9	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.1	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	4.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	4.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	4.0		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M65A-1023 — Lab Sample ID: 550-209471-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.29		0.10		mg/L	1		200.7	Dissolved
Manganese	0.23		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.8		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-M66A-1023 — Lab Sample ID: 550-209471-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3800	D2	100		mg/L	50		300.0	Total/NA
Fluoride	1.4	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	3000	D2	100		mg/L	50		300.0	Total/NA
Fluoride	1.4	D1	0.80		mg/L	2		9056A	Total/NA
Boron	2.0		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	740		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.8		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.9		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.5		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2600		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Magnesium	250		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.50		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0048		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.019	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.020		0.0050		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.015	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Selenium	0.0046		0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.067		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	150		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	150		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	9900		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	2.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.7		0.50		mg/L	1		SM 5310B	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M66A-1023 — Lab Sample ID: 550-209471-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	2.7		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.7		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-M67A-1023 — Lab Sample ID: 550-209471-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	40		mg/L	20		300.0	Total/NA
Fluoride	0.80	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	1800	D2	40		mg/L	20		300.0	Total/NA
Fluoride	0.83	D1	0.80		mg/L	2		9056A	Total/NA
Boron	0.35		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	520		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	4.0		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.5		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	12		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	770		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	220		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.20		0.050		mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0053		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.034	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Cobalt	0.0057		0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.33		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	240		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	240		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	5000		100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.8	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	1.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.2		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M67A-1023 — Lab Sample ID: 550-209471-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	2.3		0.10		mg/L	1		200.7	Dissolved
Manganese	1.4		0.010		mg/L	1		200.7	Dissolved
Arsenic	4.2		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	4.8		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-W125-1023 — Lab Sample ID: 550-209471-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	720	D2	20		mg/L	10		300.0	Total/NA
Sulfate	320	D2	20		mg/L	10		300.0	Total/NA
Boron	0.15		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	110		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.069		0.050		mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0058		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.020	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Total Dissolved Solids	1800		20		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-W125-1023 (Continued) — Lab Sample ID: 550-209471-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Temperature	9.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W-126R-1023 — Lab Sample ID: 550-209471-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	6300	D2	200		mg/L	100		300.0	Total/NA
Fluoride	5.0	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	3700	D2	100		mg/L	50		300.0	Total/NA
Boron	43		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	740		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.55		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	39		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3600		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Magnesium	340		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.71		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0030		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0099	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Cobalt	0.0038		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.27	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.59		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	72		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	72		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	14000		200		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	2.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W-126R-1023 — Lab Sample ID: 550-209471-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.56		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.9		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	3.8		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-BudHunt-1023 — Lab Sample ID: 550-209471-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	120	D2	4.0		mg/L	2		300.0	Total/NA
Sulfate	290	D2	20		mg/L	10		300.0	Total/NA
Boron	0.14		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	80		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.13		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.8		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	170		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	36		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.058		0.050		mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0026		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.012	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	170		6.0		mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-BudHunt-1023 (Continued) — Lab Sample ID: 550-209471-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	170		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1100		20		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-BudHunt-1023 — Lab Sample ID: 550-209471-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		2.5		ug/L	5		200.8 LL	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M43A-1023

Date Collected: 10/16/23 16:23
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**210**	**D2**	40		mg/L			10/31/23 12:43	20
Fluoride	ND	D1 D5	0.80		mg/L			10/21/23 17:43	2
Sulfate	**1900**	**D2**	40		mg/L			10/21/23 18:01	20

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 19:33	1
Boron	**0.49**		0.050		mg/L		10/23/23 06:23	10/25/23 19:33	1
Calcium	**530**	**M3**	2.0		mg/L		10/23/23 06:23	10/25/23 19:33	1
Iron	**1.9**		0.10		mg/L		10/23/23 06:23	10/25/23 19:33	1
Manganese	**1.6**		0.010		mg/L		10/23/23 06:23	10/25/23 19:33	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.15**		0.050		mg/L		10/25/23 08:04	10/27/23 16:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 18:53	5
Arsenic	**0.0035**		0.0025		mg/L		10/23/23 09:42	10/24/23 18:53	5
Barium	**0.018**	**L3**	0.0025		mg/L		10/23/23 09:42	10/24/23 18:53	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:53	5
Chromium	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 18:53	5
Cobalt	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:53	5
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:53	5
Molybdenum	**0.0030**	**T5**	0.0025		mg/L		10/23/23 09:42	10/24/23 18:53	5
Selenium	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:53	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:53	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:36	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.37**		0.050		mg/L			10/30/23 14:38	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 12:54	1
Total Dissolved Solids (SM 2540C)	**6500**		100		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			10/26/23 09:14	1
Temperature (SM 4500 H+ B)	**9.2**	**H5 T5**	0.1		Degrees C			10/26/23 09:14	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.8**		0.50		mg/L			10/30/23 23:09	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.8**		0.50		mg/L			10/30/23 23:09	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.8**		0.50		mg/L			10/30/23 23:09	1

Client Sample ID: CH-CCR-M43A-1023

Lab Sample ID: 550-209471-2

Date Collected: 10/16/23 16:23
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.8**		0.10		mg/L		10/23/23 06:23	10/25/23 19:36	1
Manganese	**1.6**		0.010		mg/L		10/23/23 06:23	10/25/23 19:36	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.3**		2.5		ug/L		10/23/23 09:42	10/24/23 18:55	5
Cobalt	ND		2.5		ug/L		10/23/23 09:42	10/24/23 18:55	5

Client Sample ID: CH-CCR-M45A-1023

Lab Sample ID: 550-209471-3

Date Collected: 10/17/23 13:38
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**700**	**D2**	40		mg/L			10/21/23 18:38	20
Fluoride	ND	D1 D5	0.80		mg/L			10/21/23 18:19	2
Sulfate	**2100**	**D2**	200		mg/L			10/31/23 02:29	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 19:39	1
Boron	**1.0**		0.050		mg/L		10/23/23 06:23	10/25/23 19:39	1
Calcium	**600**		2.0		mg/L		10/23/23 06:23	10/25/23 19:39	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.27**		0.10		mg/L		10/25/23 08:04	10/27/23 16:41	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 18:49	5
Arsenic	**0.0045**		0.0025		mg/L		10/23/23 09:42	10/24/23 18:49	5
Barium	**0.013**	**L3**	0.0025		mg/L		10/23/23 09:42	10/24/23 18:49	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:49	5
Chromium	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 18:49	5
Cobalt	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:49	5
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:49	5
Molybdenum	**0.0029**	**T5**	0.0025		mg/L		10/23/23 09:42	10/24/23 18:49	5
Selenium	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:49	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:49	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:38	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**4700**		100		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			10/26/23 09:16	1
Temperature (SM 4500 H+ B)	**9.5**	**H5 T5**	0.1		Degrees C			10/26/23 09:16	1

Client Sample ID: CH-CCR-M46A-1023

Date Collected: 10/16/23 13:22
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-4

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1700**	**D2**	40		mg/L			10/21/23 20:10	20
Fluoride	**1.0**	**D2**	0.80		mg/L			10/21/23 19:51	2
Sulfate	**2800**	**D2**	200		mg/L			10/31/23 02:57	100

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.1**		0.80		mg/L			11/02/23 16:40	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 19:42	1
Boron	**0.64**		0.050		mg/L		10/23/23 06:23	10/25/23 19:42	1
Calcium	**950**		2.0		mg/L		10/23/23 06:23	10/25/23 19:42	1
Iron	**5.3**		0.10		mg/L		10/23/23 06:23	10/25/23 19:42	1
Manganese	**4.1**		0.010		mg/L		10/23/23 06:23	10/25/23 19:42	1
Potassium	**13**		0.50		mg/L		10/23/23 06:23	10/25/23 19:42	1
Sodium	**3200**		5.0		mg/L		10/23/23 06:23	10/26/23 20:40	10
Magnesium	**200**		2.0		mg/L		10/23/23 06:23	10/25/23 19:42	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.35**		0.10		mg/L		10/25/23 08:04	10/27/23 17:04	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 18:51	5
Arsenic	**0.0063**		0.0025		mg/L		10/23/23 09:42	10/24/23 18:51	5
Barium	**0.020**	**L3**	0.0025		mg/L		10/23/23 09:42	10/24/23 18:51	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:51	5
Chromium	**0.0085**		0.0050		mg/L		10/23/23 09:42	10/24/23 18:51	5
Cobalt	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:51	5
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:51	5
Molybdenum	**0.0091**	**T5**	0.0025		mg/L		10/23/23 09:42	10/24/23 18:51	5
Selenium	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:51	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:51	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**1.1**		0.050		mg/L			10/30/23 14:42	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:00	1
Alkalinity as CaCO3 (SM 2320B)	**230**		6.0		mg/L			10/25/23 18:49	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/25/23 18:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**230**		6.0		mg/L			10/25/23 18:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 18:49	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 18:49	1

Client Sample ID: CH-CCR-M46A-1023

Lab Sample ID: 550-209471-4
Date Collected: 10/16/23 13:22
Matrix: Water
Date Received: 10/20/23 15:01

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	12000		100		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	7.3	H5	1.7		SU			10/26/23 09:18	1
Temperature (SM 4500 H+ B)	8.3	H5 T5	0.1		Degrees C			10/26/23 09:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	3.8		0.50		mg/L			10/30/23 23:32	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	3.8		0.50		mg/L			10/30/23 23:32	1
Dissolved Organic Carbon - Quad (SM 5310B)	3.8		0.50		mg/L			10/30/23 23:32	1

Client Sample ID: CH-CCR-M46A-1023

Lab Sample ID: 550-209471-5
Date Collected: 10/16/23 13:22
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.9		0.10		mg/L		10/23/23 06:23	10/25/23 19:45	1
Manganese	3.9		0.010		mg/L		10/23/23 06:23	10/25/23 19:45	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.6		2.5		ug/L		10/23/23 09:42	10/24/23 18:57	5
Cobalt	ND		2.5		ug/L		10/23/23 09:42	10/24/23 18:57	5

Client Sample ID: CH-CCR-M50A-1023

Lab Sample ID: 550-209471-6
Date Collected: 10/17/23 10:21
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1900	D2	100		mg/L			10/21/23 20:47	50
Fluoride	2.5	D2	0.80		mg/L			10/21/23 20:28	2
Sulfate	3000	D2	100		mg/L			10/21/23 20:47	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	2.4	D1	0.80		mg/L			11/02/23 18:48	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 19:48	1
Boron	3.0		0.050		mg/L		10/23/23 06:23	10/25/23 19:48	1
Calcium	570		2.0		mg/L		10/23/23 06:23	10/25/23 19:48	1
Iron	ND		0.10		mg/L		10/23/23 06:23	10/25/23 19:48	1
Manganese	0.31		0.010		mg/L		10/23/23 06:23	10/25/23 19:48	1
Potassium	5.7		0.50		mg/L		10/23/23 06:23	10/25/23 19:48	1
Sodium	1600		5.0		mg/L		10/23/23 06:23	10/26/23 20:43	10
Magnesium	180		2.0		mg/L		10/23/23 06:23	10/25/23 19:48	1

Client Sample ID: CH-CCR-M50A-1023

Date Collected: 10/17/23 10:21
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-6

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.50**		0.10		mg/L		10/25/23 08:04	10/27/23 17:07	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 18:59	5
Arsenic	**0.0052**		0.0025		mg/L		10/23/23 09:42	10/24/23 18:59	5
Barium	**0.0084**	**L3**	0.0025		mg/L		10/23/23 09:42	10/24/23 18:59	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:59	5
Chromium	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 18:59	5
Cobalt	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:59	5
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:59	5
Molybdenum	**0.0083**	**T5**	0.0025		mg/L		10/23/23 09:42	10/24/23 18:59	5
Selenium	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 18:59	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:59	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:42	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			10/30/23 14:44	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:02	1
Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			10/25/23 18:57	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/25/23 18:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			10/25/23 18:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 18:57	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 18:57	1
Total Dissolved Solids (SM 2540C)	**7500**		100		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			10/26/23 09:19	1
Temperature (SM 4500 H+ B)	**8.1**	**H5 T5**	0.1		Degrees C			10/26/23 09:19	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.8**		0.50		mg/L			10/30/23 23:49	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.8**		0.50		mg/L			10/30/23 23:49	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.8**		0.50		mg/L			10/30/23 23:49	1

Client Sample ID: CH-CCR-M50A-1023

Date Collected: 10/17/23 10:21
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-7

Matrix: Water

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:23	10/25/23 19:50	1
Manganese	**0.30**		0.010		mg/L		10/23/23 06:23	10/25/23 19:50	1

Client Sample ID: CH-CCR-M50A-1023

Lab Sample ID: 550-209471-7

Date Collected: 10/17/23 10:21
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.2**		2.5		ug/L		10/23/23 09:42	10/24/23 19:01	5
Cobalt	ND		2.5		ug/L		10/23/23 09:42	10/24/23 19:01	5

Client Sample ID: CH-CCR-M51A-1023

Lab Sample ID: 550-209471-8

Date Collected: 10/17/23 09:37
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6300**	**D2**	200		mg/L			10/31/23 03:25	100
Fluoride	**5.6**	**D2**	0.80		mg/L			10/21/23 21:05	2
Sulfate	**2800**	**D2**	100		mg/L			10/21/23 21:23	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**5.7**	**D1**	0.80		mg/L			11/02/23 19:07	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 19:53	1
Boron	**27**		0.050		mg/L		10/23/23 06:23	10/25/23 19:53	1
Calcium	**860**		2.0		mg/L		10/23/23 06:23	10/25/23 19:53	1
Iron	ND		0.10		mg/L		10/23/23 06:23	10/25/23 19:53	1
Manganese	**1.1**		0.010		mg/L		10/23/23 06:23	10/25/23 19:53	1
Potassium	**27**		0.50		mg/L		10/23/23 06:23	10/25/23 19:53	1
Sodium	**3200**		5.0		mg/L		10/23/23 06:23	10/26/23 20:46	10
Magnesium	**250**		2.0		mg/L		10/23/23 06:23	10/25/23 19:53	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.54**		0.10		mg/L		10/25/23 08:04	10/27/23 17:09	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:03	5
Arsenic	**0.032**		0.0050		mg/L		10/23/23 09:42	10/27/23 18:43	10
Barium	**0.0077**	**L3**	0.0025		mg/L		10/23/23 09:42	10/24/23 19:03	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 19:03	5
Chromium	ND		0.010		mg/L		10/23/23 09:42	10/27/23 18:43	10
Cobalt	ND		0.0050		mg/L		10/23/23 09:42	10/27/23 18:43	10
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:03	5
Molybdenum	**0.16**	**T5**	0.0025		mg/L		10/23/23 09:42	10/24/23 19:03	5
Selenium	ND		0.0050		mg/L		10/23/23 09:42	10/27/23 18:43	10
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 19:03	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:44	1

Client Sample ID: CH-CCR-M51A-1023
Date Collected: 10/17/23 09:37
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-8
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.12**		0.050		mg/L			10/30/23 14:45	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:04	1
Alkalinity as CaCO3 (SM 2320B)	**77**		6.0		mg/L			10/25/23 19:04	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/25/23 19:04	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**77**		6.0		mg/L			10/25/23 19:04	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:04	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:04	1
Total Dissolved Solids (SM 2540C)	**14000**		200		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			10/26/23 09:20	1
Temperature (SM 4500 H+ B)	**8.2**	**H5 T5**	0.1		Degrees C			10/26/23 09:20	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.1**		0.50		mg/L			10/31/23 00:06	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.1**		0.50		mg/L			10/31/23 00:06	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.1**		0.50		mg/L			10/31/23 00:06	1

Client Sample ID: CH-CCR-M51A-1023
Date Collected: 10/17/23 09:37
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-9
Matrix: Water

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:23	10/25/23 19:56	1
Manganese	**1.1**		0.010		mg/L		10/23/23 06:23	10/25/23 19:56	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**31**		5.0		ug/L		10/23/23 09:42	10/27/23 18:45	10
Cobalt	ND		5.0		ug/L		10/23/23 09:42	10/27/23 18:45	10

Client Sample ID: CH-CCR-M65A-1023
Date Collected: 10/16/23 11:19
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-10
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4300**	**D2**	100		mg/L			10/21/23 22:00	50
Fluoride	**3.0**	**D2**	0.80		mg/L			10/21/23 21:42	2
Sulfate	**3700**	**D2**	100		mg/L			10/21/23 22:00	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**3.0**	**D1**	0.80		mg/L			11/02/23 19:25	2

Client Sample ID: CH-CCR-M65A-1023

Date Collected: 10/16/23 11:19
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-10

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 19:59	1
Boron	**14**		0.050		mg/L		10/23/23 06:23	10/25/23 19:59	1
Calcium	**830**		2.0		mg/L		10/23/23 06:23	10/25/23 19:59	1
Iron	**0.43**		0.10		mg/L		10/23/23 06:23	10/25/23 19:59	1
Manganese	**0.22**		0.010		mg/L		10/23/23 06:23	10/25/23 19:59	1
Potassium	**33**		0.50		mg/L		10/23/23 06:23	10/25/23 19:59	1
Sodium	**2900**		5.0		mg/L		10/23/23 06:23	10/26/23 20:49	10
Magnesium	**360**		2.0		mg/L		10/23/23 06:23	10/25/23 19:59	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.73**		0.10		mg/L		10/25/23 08:04	11/01/23 10:52	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:07	5
Arsenic	**0.0040**		0.0025		mg/L		10/23/23 09:42	10/24/23 19:07	5
Barium	**0.021**	**L3**	0.0025		mg/L		10/23/23 09:42	10/24/23 19:07	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 19:07	5
Chromium	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:07	5
Cobalt	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:07	5
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:07	5
Molybdenum	**0.18**	**T5**	0.0025		mg/L		10/23/23 09:42	10/24/23 19:07	5
Selenium	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:07	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 19:07	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:50	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			10/30/23 14:47	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:06	1
Alkalinity as CaCO3 (SM 2320B)	**230**		6.0		mg/L			10/25/23 19:10	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/25/23 19:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**230**		6.0		mg/L			10/25/23 19:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:10	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:10	1
Total Dissolved Solids (SM 2540C)	**12000**		100		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	**6.9**	**H5**	1.7		SU			10/26/23 09:21	1
Temperature (SM 4500 H+ B)	**9.1**	**H5 T5**	0.1		Degrees C			10/26/23 09:21	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**4.0**		0.50		mg/L			10/31/23 00:29	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**4.0**		0.50		mg/L			10/31/23 00:29	1

Client Sample ID: CH-CCR-M65A-1023

Lab Sample ID: 550-209471-10
Matrix: Water
Date Collected: 10/16/23 11:19
Date Received: 10/20/23 15:01

General Chemistry - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad (SM 5310B)	4.0		0.50		mg/L			10/31/23 00:29	1

Client Sample ID: CH-CCR-M65A-1023

Lab Sample ID: 550-209471-11
Matrix: Water
Date Collected: 10/16/23 11:19
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.29		0.10		mg/L		10/23/23 06:23	10/25/23 20:07	1
Manganese	0.23		0.010		mg/L		10/23/23 06:23	10/25/23 20:07	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.8		2.5		ug/L		10/23/23 09:42	10/24/23 19:15	5
Cobalt	ND		2.5		ug/L		10/23/23 09:42	10/24/23 19:15	5

Client Sample ID: CH-CCR-M66A-1023

Lab Sample ID: 550-209471-12
Matrix: Water
Date Collected: 10/16/23 10:15
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3800	D2	100		mg/L			10/21/23 23:32	50
Fluoride	1.4	D2	0.80		mg/L			10/21/23 22:19	2
Sulfate	3000	D2	100		mg/L			10/21/23 23:32	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.4	D1	0.80		mg/L			11/02/23 19:44	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 20:10	1
Boron	2.0		0.050		mg/L		10/23/23 06:23	10/25/23 20:10	1
Calcium	740		2.0		mg/L		10/23/23 06:23	10/25/23 20:10	1
Iron	1.8		0.10		mg/L		10/23/23 06:23	10/25/23 20:10	1
Manganese	2.9		0.010		mg/L		10/23/23 06:23	10/25/23 20:10	1
Potassium	6.5		0.50		mg/L		10/23/23 06:23	10/25/23 20:10	1
Sodium	2600		5.0		mg/L		10/23/23 06:23	10/26/23 20:52	10
Magnesium	250		2.0		mg/L		10/23/23 06:23	10/25/23 20:10	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.50		0.10		mg/L		10/25/23 08:04	11/01/23 10:55	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:17	5
Arsenic	0.0048		0.0025		mg/L		10/23/23 09:42	10/24/23 19:17	5
Barium	0.019	L3	0.0025		mg/L		10/23/23 09:42	10/24/23 19:17	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 19:17	5

Client Sample ID: CH-CCR-M66A-1023

Date Collected: 10/16/23 10:15
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-12

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.020**		0.0050		mg/L		10/23/23 09:42	10/24/23 19:17	5
Cobalt	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:17	5
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/27/23 18:47	5
Molybdenum	**0.015**	**T5**	0.0025		mg/L		10/23/23 09:42	10/24/23 19:17	5
Selenium	**0.0046**		0.0025		mg/L		10/23/23 09:42	10/24/23 19:17	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:47	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:52	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.067**		0.050		mg/L			10/30/23 14:48	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:08	1
Alkalinity as CaCO3 (SM 2320B)	**150**		6.0		mg/L			10/25/23 19:18	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/25/23 19:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**150**		6.0		mg/L			10/25/23 19:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:18	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:18	1
Total Dissolved Solids (SM 2540C)	**9900**		100		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			10/26/23 09:22	1
Temperature (SM 4500 H+ B)	**9.7**	**H5 T5**	0.1		Degrees C			10/26/23 09:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.7**		0.50		mg/L			11/07/23 23:43	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.7**		0.50		mg/L			11/07/23 23:43	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.7**		0.50		mg/L			11/07/23 23:43	1

Client Sample ID: CH-CCR-M66A-1023

Date Collected: 10/16/23 10:15
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-13

Matrix: Water

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:23	10/25/23 20:13	1
Manganese	**2.7**		0.010		mg/L		10/23/23 06:23	10/25/23 20:13	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.7**		2.5		ug/L		10/23/23 09:42	10/24/23 19:19	5
Cobalt	ND		2.5		ug/L		10/23/23 09:42	10/24/23 19:19	5

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M67A-1023

Date Collected: 10/16/23 15:15
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-14

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**	**D2**	40		mg/L			10/22/23 00:09	20
Fluoride	**0.80**	**D2**	0.80		mg/L			10/21/23 23:51	2
Sulfate	**1800**	**D2**	40		mg/L			10/22/23 00:09	20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.83**	**D1**	0.80		mg/L			11/02/23 20:02	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 20:16	1
Boron	**0.35**		0.050		mg/L		10/23/23 06:23	10/25/23 20:16	1
Calcium	**520**		2.0		mg/L		10/23/23 06:23	10/25/23 20:16	1
Iron	**4.0**		0.10		mg/L		10/23/23 06:23	10/25/23 20:16	1
Manganese	**1.5**		0.010		mg/L		10/23/23 06:23	10/25/23 20:16	1
Potassium	**12**		0.50		mg/L		10/23/23 06:23	10/25/23 20:16	1
Sodium	**770**		0.50		mg/L		10/23/23 06:23	10/25/23 20:16	1
Magnesium	**220**		2.0		mg/L		10/23/23 06:23	10/25/23 20:16	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.20**		0.050		mg/L		10/25/23 08:04	10/27/23 16:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:21	5
Arsenic	**0.0053**		0.0025		mg/L		10/23/23 09:42	10/24/23 19:21	5
Barium	**0.034**	**L3**	0.0025		mg/L		10/23/23 09:42	10/24/23 19:21	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 19:21	5
Chromium	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:21	5
Cobalt	**0.0057**		0.0025		mg/L		10/23/23 09:42	10/24/23 19:21	5
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/27/23 18:49	5
Molybdenum	ND	T5	0.0025		mg/L		10/23/23 09:42	10/24/23 19:21	5
Selenium	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:21	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:49	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:54	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.33**		0.050		mg/L			10/30/23 14:50	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:10	1
Alkalinity as CaCO3 (SM 2320B)	**240**		6.0		mg/L			10/25/23 19:25	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/25/23 19:25	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**240**		6.0		mg/L			10/25/23 19:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:25	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:25	1

Client Sample ID: CH-CCR-M67A-1023

Lab Sample ID: 550-209471-14
Matrix: Water
Date Collected: 10/16/23 15:15
Date Received: 10/20/23 15:01

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5000		100		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	7.3	H5	1.7		SU			10/26/23 09:23	1
Temperature (SM 4500 H+ B)	9.8	H5 T5	0.1		Degrees C			10/26/23 09:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.2		0.50		mg/L			11/08/23 00:38	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.2		0.50		mg/L			11/08/23 00:38	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.2		0.50		mg/L			11/08/23 00:38	1

Client Sample ID: CH-CCR-M67A-1023

Lab Sample ID: 550-209471-15
Matrix: Water
Date Collected: 10/16/23 15:15
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	2.3		0.10		mg/L		10/23/23 06:23	10/25/23 20:19	1
Manganese	1.4		0.010		mg/L		10/23/23 06:23	10/25/23 20:19	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.2		2.5		ug/L		10/23/23 09:42	10/24/23 19:23	5
Cobalt	4.8		2.5		ug/L		10/23/23 09:42	10/24/23 19:23	5

Client Sample ID: CH-CCR-W125-1023

Lab Sample ID: 550-209471-16
Matrix: Water
Date Collected: 10/17/23 11:16
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	720	D2	20		mg/L			10/22/23 00:46	10
Fluoride	ND	D1 D5	0.80		mg/L			10/22/23 00:27	2
Sulfate	320	D2	20		mg/L			10/22/23 00:46	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 20:22	1
Boron	0.15		0.050		mg/L		10/23/23 06:23	10/25/23 20:22	1
Calcium	110		2.0		mg/L		10/23/23 06:23	10/25/23 20:22	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.069		0.050		mg/L		10/25/23 08:04	10/27/23 16:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:25	5
Arsenic	0.0058		0.0025		mg/L		10/23/23 09:42	10/24/23 19:25	5
Barium	0.020	L3	0.0025		mg/L		10/23/23 09:42	10/24/23 19:25	5

Client Sample ID: CH-CCR-W125-1023

Lab Sample ID: 550-209471-16

Date Collected: 10/17/23 11:16
Matrix: Water
Date Received: 10/20/23 15:01

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 19:25	5
Chromium	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:25	5
Cobalt	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:25	5
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/27/23 18:51	5
Molybdenum	ND	T5	0.0025		mg/L		10/23/23 09:42	10/24/23 19:25	5
Selenium	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:25	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:51	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:56	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1800		20		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	7.6	H5	1.7		SU			10/26/23 09:25	1
Temperature (SM 4500 H+ B)	9.6	H5 T5	0.1		Degrees C			10/26/23 09:25	1

Client Sample ID: CH-CCR-W-126R-1023

Lab Sample ID: 550-209471-17

Date Collected: 10/16/23 09:29
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6300	D2	200		mg/L			10/31/23 05:17	100
Fluoride	5.0	D2	0.80		mg/L			10/22/23 01:04	2
Sulfate	3700	D2	100		mg/L			10/22/23 01:23	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 20:24	1
Boron	43		0.050		mg/L		10/23/23 06:23	10/25/23 20:24	1
Calcium	740		2.0		mg/L		10/23/23 06:23	10/25/23 20:24	1
Iron	ND		0.10		mg/L		10/23/23 06:23	10/25/23 20:24	1
Manganese	0.55		0.010		mg/L		10/23/23 06:23	10/25/23 20:24	1
Potassium	39		0.50		mg/L		10/23/23 06:23	10/25/23 20:24	1
Sodium	3600		5.0		mg/L		10/23/23 06:23	10/26/23 20:55	10
Magnesium	340		2.0		mg/L		10/23/23 06:23	10/25/23 20:24	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.71		0.10		mg/L		10/25/23 08:04	10/27/23 17:22	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:27	5
Arsenic	0.0030		0.0025		mg/L		10/23/23 09:42	10/24/23 19:27	5
Barium	0.0099	L3	0.0025		mg/L		10/23/23 09:42	10/24/23 19:27	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 19:27	5
Chromium	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:27	5
Cobalt	0.0038		0.0025		mg/L		10/23/23 09:42	10/24/23 19:27	5

Client Sample ID: CH-CCR-W-126R-1023

Lab Sample ID: 550-209471-17
Matrix: Water
Date Collected: 10/16/23 09:29
Date Received: 10/20/23 15:01

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/27/23 18:53	5
Molybdenum	**0.27**	**T5**	0.0025		mg/L		10/23/23 09:42	10/24/23 19:27	5
Selenium	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:27	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:53	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 15:28	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.59**		0.050		mg/L			10/30/23 14:51	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:12	1
Alkalinity as CaCO3 (SM 2320B)	**72**		6.0		mg/L			10/25/23 19:34	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/25/23 19:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**72**		6.0		mg/L			10/25/23 19:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:34	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:34	1
Total Dissolved Solids (SM 2540C)	**14000**		200		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			10/26/23 09:26	1
Temperature (SM 4500 H+ B)	**9.0**	**H5 T5**	0.1		Degrees C			10/26/23 09:26	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.1**		0.50		mg/L			11/08/23 01:00	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.1**		0.50		mg/L			11/08/23 01:00	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.1**		0.50		mg/L			11/08/23 01:00	1

Client Sample ID: CH-CCR-W-126R-1023

Lab Sample ID: 550-209471-18
Matrix: Water
Date Collected: 10/16/23 09:29
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:23	10/25/23 20:27	1
Manganese	**0.56**		0.010		mg/L		10/23/23 06:23	10/25/23 20:27	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.9**		2.5		ug/L		10/23/23 09:42	10/24/23 19:29	5
Cobalt	**3.8**		2.5		ug/L		10/23/23 09:42	10/24/23 19:29	5

Client Sample ID: CH-CCR-BudHunt-1023

Date Collected: 10/17/23 08:40
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-19

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**	**D2**	4.0		mg/L			10/22/23 01:41	2
Fluoride	ND	D1 D5	0.80		mg/L			10/22/23 01:41	2
Sulfate	**290**	**D2**	20		mg/L			10/22/23 01:59	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 20:30	1
Boron	**0.14**		0.050		mg/L		10/23/23 06:23	10/25/23 20:30	1
Calcium	**80**		2.0		mg/L		10/23/23 06:23	10/25/23 20:30	1
Iron	**0.13**		0.10		mg/L		10/23/23 06:23	10/25/23 20:30	1
Manganese	ND		0.010		mg/L		10/23/23 06:23	10/25/23 20:30	1
Potassium	**2.8**		0.50		mg/L		10/23/23 06:23	10/25/23 20:30	1
Sodium	**170**		0.50		mg/L		10/23/23 06:23	10/25/23 20:30	1
Magnesium	**36**		2.0		mg/L		10/23/23 06:23	10/25/23 20:30	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.058**		0.050		mg/L		10/25/23 08:04	10/27/23 16:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:31	5
Arsenic	**0.0026**		0.0025		mg/L		10/23/23 09:42	10/24/23 19:31	5
Barium	**0.012**	**L3**	0.0025		mg/L		10/23/23 09:42	10/24/23 19:31	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 19:31	5
Chromium	ND		0.0050		mg/L		10/23/23 09:42	10/24/23 19:31	5
Cobalt	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:31	5
Lead	ND		0.0025		mg/L		10/23/23 09:42	10/27/23 18:55	5
Molybdenum	ND	T5	0.0025		mg/L		10/23/23 09:42	10/24/23 19:31	5
Selenium	ND		0.0025		mg/L		10/23/23 09:42	10/24/23 19:31	5
Thallium	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:55	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 16:01	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			10/30/23 14:53	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:26	1
Alkalinity as CaCO3 (SM 2320B)	**170**		6.0		mg/L			10/25/23 19:39	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/25/23 19:39	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**170**		6.0		mg/L			10/25/23 19:39	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:39	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/25/23 19:39	1
Total Dissolved Solids (SM 2540C)	**1100**		20		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			10/26/23 09:27	1
Temperature (SM 4500 H+ B)	**9.7**	**H5 T5**	0.1		Degrees C			10/26/23 09:27	1

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-BudHunt-1023

Lab Sample ID: 550-209471-19
Date Collected: 10/17/23 08:40
Matrix: Water
Date Received: 10/20/23 15:01

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	ND		0.50		mg/L			11/08/23 01:16	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	ND		0.50		mg/L			11/08/23 01:16	1
Dissolved Organic Carbon - Quad (SM 5310B)	ND		0.50		mg/L			11/08/23 01:16	1

Client Sample ID: CH-CCR-BudHunt-1023

Lab Sample ID: 550-209471-20
Date Collected: 10/17/23 08:40
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:23	10/25/23 20:33	1
Manganese	ND		0.010		mg/L		10/23/23 06:23	10/25/23 20:33	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.7**		2.5		ug/L		10/23/23 09:42	10/24/23 19:33	5
Cobalt	ND		2.5		ug/L		10/23/23 09:42	10/24/23 19:33	5

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-309850/2
Matrix: Water
Analysis Batch: 309850

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			10/21/23 14:27	1
Fluoride	ND		0.40		mg/L			10/21/23 14:27	1
Sulfate	ND		2.0		mg/L			10/21/23 14:27	1

Lab Sample ID: LCS 550-309850/5
Matrix: Water
Analysis Batch: 309850

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	21.0		mg/L		105	90 - 110		
Fluoride			4.00	4.31		mg/L		108	90 - 110		
Sulfate			20.0	21.1		mg/L		105	90 - 110		

Lab Sample ID: LCSD 550-309850/6
Matrix: Water
Analysis Batch: 309850

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	21.0		mg/L		105	90 - 110	0	20
Fluoride			4.00	4.35		mg/L		109	90 - 110	1	20
Sulfate			20.0	21.1		mg/L		105	90 - 110	0	20

Lab Sample ID: 550-209102-A-1 MS ^10
Matrix: Water
Analysis Batch: 309850

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	290	D2	200	500	D2	mg/L		103	80 - 120		
Fluoride	ND		40.0	43.1	D2	mg/L		105	80 - 120		
Sulfate	480	D2	200	670	D2	mg/L		96	80 - 120		

Lab Sample ID: 550-209102-A-1 MSD ^10
Matrix: Water
Analysis Batch: 309850

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	290	D2	200	499	D2	mg/L		103	80 - 120	0	20
Fluoride	ND		40.0	43.0	D2	mg/L		105	80 - 120	0	20
Sulfate	480	D2	200	670	D2	mg/L		95	80 - 120	0	20

Lab Sample ID: MB 550-310211/2
Matrix: Water
Analysis Batch: 310211

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			10/30/23 10:10	1
Fluoride	ND		0.40		mg/L			10/30/23 10:10	1
Sulfate	ND		2.0		mg/L			10/30/23 10:10	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-310211/5
Matrix: Water
Analysis Batch: 310211

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	18.9		mg/L		94	90 - 110		
Fluoride			4.00	4.01		mg/L		100	90 - 110		
Sulfate			20.0	19.0		mg/L		95	90 - 110		

Lab Sample ID: LCSD 550-310211/6
Matrix: Water
Analysis Batch: 310211

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	18.9		mg/L		95	90 - 110	0	20
Fluoride			4.00	4.01		mg/L		100	90 - 110	0	20
Sulfate			20.0	19.0		mg/L		95	90 - 110	0	20

Lab Sample ID: 550-209568-B-5 MS ^10
Matrix: Water
Analysis Batch: 310211

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	29		200	221		mg/L		96	80 - 120		
Fluoride	ND		40.0	41.0		mg/L		101	80 - 120		
Sulfate	340		200	514		mg/L		86	80 - 120		

Lab Sample ID: 550-209568-B-5 MSD ^10
Matrix: Water
Analysis Batch: 310211

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	29		200	222		mg/L		97	80 - 120	0	20
Fluoride	ND		40.0	41.3		mg/L		101	80 - 120	1	20
Sulfate	340		200	511		mg/L		85	80 - 120	1	20

Lab Sample ID: MB 550-310213/2
Matrix: Water
Analysis Batch: 310213

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			10/30/23 10:46	1
Fluoride	ND		0.40		mg/L			10/30/23 10:46	1
Sulfate	ND		2.0		mg/L			10/30/23 10:46	1

Lab Sample ID: LCS 550-310213/5
Matrix: Water
Analysis Batch: 310213

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	20.4		mg/L		102	90 - 110		
Fluoride			4.00	4.23		mg/L		106	90 - 110		
Sulfate			20.0	20.5		mg/L		103	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-310213/6
Matrix: Water
Analysis Batch: 310213

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	20.4		mg/L		102	90 - 110	0	20
Fluoride			4.00	4.23		mg/L		106	90 - 110	0	20
Sulfate			20.0	20.5		mg/L		102	90 - 110	0	20

Lab Sample ID: 550-209476-A-15 MS
Matrix: Water
Analysis Batch: 310213

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	790	E2 M3	20.0	786	E2 M3	mg/L		-11	80 - 120		
Fluoride	0.50		4.00	4.12		mg/L		90	80 - 120		
Sulfate	1300	E2 M3	20.0	1290	E2 M3	mg/L		-125	80 - 120		

Lab Sample ID: 550-209476-A-15 MSD
Matrix: Water
Analysis Batch: 310213

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	790	E2 M3	20.0	786	E2 M3	mg/L		-11	80 - 120	0	20
Fluoride	0.50		4.00	4.23		mg/L		93	80 - 120	3	20
Sulfate	1300	E2 M3	20.0	1290	E2 M3	mg/L		-130	80 - 120	0	20

Lab Sample ID: MB 550-310443/2
Matrix: Water
Analysis Batch: 310443

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			11/02/23 09:54	1
Fluoride	ND		0.40		mg/L			11/02/23 09:54	1
Sulfate	ND		2.0		mg/L			11/02/23 09:54	1

Lab Sample ID: LCS 550-310443/5
Matrix: Water
Analysis Batch: 310443

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	20.8		mg/L		104	90 - 110		
Fluoride			4.00	4.11		mg/L		103	90 - 110		
Sulfate			20.0	20.9		mg/L		104	90 - 110		

Lab Sample ID: LCSD 550-310443/6
Matrix: Water
Analysis Batch: 310443

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	20.8		mg/L		104	90 - 110	0	20
Fluoride			4.00	4.07		mg/L		102	90 - 110	1	20
Sulfate			20.0	20.9		mg/L		104	90 - 110	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-209471-4 MS
Matrix: Water
Analysis Batch: 310443

Client Sample ID: CH-CCR-M46A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1800	E2	40.0	1770	E2 M3	mg/L		9	80 - 120		
Fluoride	1.1		8.00	8.87		mg/L		98	80 - 120		
Sulfate	1300	E2	40.0	1340	E2 M3	mg/L		29	80 - 120		

Lab Sample ID: 550-209471-4 MSD
Matrix: Water
Analysis Batch: 310443

Client Sample ID: CH-CCR-M46A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1800	E2	40.0	1760	E2 M3	mg/L		-5	80 - 120	0	20
Fluoride	1.1		8.00	8.72		mg/L		96	80 - 120	2	20
Sulfate	1300	E2	40.0	1340	E2 M3	mg/L		11	80 - 120	1	20

Lab Sample ID: 550-209876-D-1 MS
Matrix: Water
Analysis Batch: 310443

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	360	E2 M3	20.0	357	E2 M3	mg/L		-7	80 - 120		
Fluoride	ND		4.00	4.27		mg/L		100	80 - 120		
Sulfate	320	E2 M3	20.0	322	E2 M3	mg/L		12	80 - 120		

Lab Sample ID: 550-209876-D-1 MSD
Matrix: Water
Analysis Batch: 310443

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	360	E2 M3	20.0	357	E2 M3	mg/L		-6	80 - 120	0	20
Fluoride	ND		4.00	4.33		mg/L		101	80 - 120	1	20
Sulfate	320	E2 M3	20.0	322	E2 M3	mg/L		12	80 - 120	0	20

Lab Sample ID: 550-209471-4 DU
Matrix: Water
Analysis Batch: 310443

Client Sample ID: CH-CCR-M46A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	1800	E2		1750	E2	mg/L				0.9	20
Fluoride	1.1			1.04		mg/L				1	20
Sulfate	1300	E2		1320	E2	mg/L				1	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 550-209471-4 MS
Matrix: Water
Analysis Batch: 310443

Client Sample ID: CH-CCR-M46A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	1.1		8.00	8.87		mg/L		98	80 - 120		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-209471-4 MSD
Matrix: Water
Analysis Batch: 310443

Client Sample ID: CH-CCR-M46A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	1.1		8.00	8.72		mg/L		96	80 - 120	2	20

Lab Sample ID: 550-209471-4 DU
Matrix: Water
Analysis Batch: 310443

Client Sample ID: CH-CCR-M46A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	1.1			1.04		mg/L				1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-309745/1-A
Matrix: Water
Analysis Batch: 309989

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309745

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:23	10/25/23 19:19	1
Boron	ND		0.050		mg/L		10/23/23 06:23	10/25/23 19:19	1
Calcium	ND		2.0		mg/L		10/23/23 06:23	10/25/23 19:19	1
Iron	ND		0.10		mg/L		10/23/23 06:23	10/25/23 19:19	1
Manganese	ND		0.010		mg/L		10/23/23 06:23	10/25/23 19:19	1
Potassium	ND		0.50		mg/L		10/23/23 06:23	10/25/23 19:19	1
Sodium	ND		0.50		mg/L		10/23/23 06:23	10/25/23 19:19	1
Magnesium	ND		2.0		mg/L		10/23/23 06:23	10/25/23 19:19	1

Lab Sample ID: LCS 550-309745/2-A
Matrix: Water
Analysis Batch: 309989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309745

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	0.963		mg/L		96	85 - 115		
Boron			1.00	1.02		mg/L		102	85 - 115		
Calcium			21.0	20.6		mg/L		98	85 - 115		
Iron			1.00	0.830		mg/L		83	85 - 115		
Manganese			1.00	0.935		mg/L		94	85 - 115		
Potassium			20.0	18.9		mg/L		95	85 - 115		
Sodium			20.0	19.0		mg/L		95	85 - 115		
Magnesium			21.0	20.0		mg/L		95	85 - 115		

Lab Sample ID: LCSD 550-309745/3-A
Matrix: Water
Analysis Batch: 309989

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309745

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium			1.00	0.966		mg/L		97	85 - 115	0	20
Boron			1.00	1.02		mg/L		102	85 - 115	0	20
Calcium			21.0	20.7		mg/L		99	85 - 115	1	20
Iron			1.00	0.829		mg/L		83	85 - 115	0	20
Manganese			1.00	0.930		mg/L		93	85 - 115	1	20
Potassium			20.0	19.0		mg/L		95	85 - 115	0	20

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

Lab Sample ID: LCSD 550-309745/3-A
Matrix: Water
Analysis Batch: 309989

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309745

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium			20.0	19.1		mg/L		96	85 - 115	1	20
Magnesium			21.0	20.1		mg/L		96	85 - 115	0	20

Lab Sample ID: 550-209471-1 MS
Matrix: Water
Analysis Batch: 309989

Client Sample ID: CH-CCR-M43A-1023
Prep Type: Total/NA
Prep Batch: 309745

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	ND		1.00	0.995		mg/L		100	70 - 130
Boron	0.49		1.00	1.55		mg/L		106	70 - 130
Calcium	530	M3	21.0	529	M3	mg/L		-7	70 - 130
Iron	1.9		1.00	2.75		mg/L		86	70 - 130
Manganese	1.6		1.00	2.48		mg/L		83	70 - 130
Potassium	8.2		20.0	29.3		mg/L		106	70 - 130
Magnesium	180	M3	21.0	192	M3	mg/L		61	70 - 130

Lab Sample ID: 550-209471-1 MSD
Matrix: Water
Analysis Batch: 309989

Client Sample ID: CH-CCR-M43A-1023
Prep Type: Total/NA
Prep Batch: 309745

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	ND		1.00	1.01		mg/L		101	70 - 130	2	20
Boron	0.49		1.00	1.56		mg/L		107	70 - 130	1	20
Calcium	530	M3	21.0	545	M3	mg/L		65	70 - 130	3	20
Iron	1.9		1.00	2.80		mg/L		91	70 - 130	2	20
Manganese	1.6		1.00	2.51		mg/L		86	70 - 130	1	20
Potassium	8.2		20.0	30.0		mg/L		109	70 - 130	2	20
Magnesium	180	M3	21.0	197	M3	mg/L		84	70 - 130	2	20

Lab Sample ID: MB 570-376967/1-A
Matrix: Water
Analysis Batch: 378051

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 376967

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		0.050		mg/L		10/25/23 08:04	10/27/23 16:50	1

Lab Sample ID: LCS 570-376967/2-A
Matrix: Water
Analysis Batch: 378051

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 376967

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium			0.500	0.536		mg/L		107	85 - 115

Lab Sample ID: LCSD 570-376967/3-A
Matrix: Water
Analysis Batch: 378051

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 376967

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium			0.500	0.531		mg/L		106	85 - 115	1	20

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

Lab Sample ID: 550-209471-8 MS
Matrix: Water
Analysis Batch: 378051

Client Sample ID: CH-CCR-M51A-1023
Prep Type: Total Recoverable
Prep Batch: 376967

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.54		0.500	1.13		mg/L		117	80 - 120

Lab Sample ID: 550-209471-8 MSD
Matrix: Water
Analysis Batch: 378051

Client Sample ID: CH-CCR-M51A-1023
Prep Type: Total Recoverable
Prep Batch: 376967

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	0.54		0.500	1.12		mg/L		115	80 - 120	1	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-309754/1-A
Matrix: Water
Analysis Batch: 309936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309754

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/23/23 09:42	10/24/23 18:34	1
Arsenic	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:34	1
Barium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:34	1
Cadmium	ND		0.00010		mg/L		10/23/23 09:42	10/24/23 18:34	1
Chromium	ND		0.0010		mg/L		10/23/23 09:42	10/24/23 18:34	1
Cobalt	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:34	1
Lead	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:34	1
Molybdenum	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:34	1
Selenium	ND		0.00050		mg/L		10/23/23 09:42	10/24/23 18:34	1
Thallium	ND		0.00010		mg/L		10/23/23 09:42	10/24/23 18:34	1

Lab Sample ID: MB 550-309754/1-A
Matrix: Water
Analysis Batch: 310201

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309754

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/23/23 09:42	10/27/23 18:33	1
Arsenic	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:33	1
Barium	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:33	1
Cadmium	ND		0.00010		mg/L		10/23/23 09:42	10/27/23 18:33	1
Chromium	ND		0.0010		mg/L		10/23/23 09:42	10/27/23 18:33	1
Cobalt	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:33	1
Lead	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:33	1
Molybdenum	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:33	1
Selenium	ND		0.00050		mg/L		10/23/23 09:42	10/27/23 18:33	1
Thallium	ND		0.00010		mg/L		10/23/23 09:42	10/27/23 18:33	1

Lab Sample ID: LCS 550-309754/2-A
Matrix: Water
Analysis Batch: 309936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309754

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony			0.100	0.104		mg/L		104	85 - 115
Arsenic			0.100	0.102		mg/L		102	85 - 115

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

Lab Sample ID: LCS 550-309754/2-A
Matrix: Water
Analysis Batch: 309936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309754

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.125	L3	mg/L		125	85 - 115
Cadmium	0.100	0.102		mg/L		102	85 - 115
Chromium	0.100	0.106		mg/L		106	85 - 115
Cobalt	0.100	0.110		mg/L		110	85 - 115
Lead	0.100	0.108		mg/L		108	85 - 115
Molybdenum	0.100	0.102		mg/L		102	85 - 115
Selenium	0.100	0.100		mg/L		100	85 - 115
Thallium	0.100	0.108		mg/L		108	85 - 115

Lab Sample ID: LCS 550-309754/2-A
Matrix: Water
Analysis Batch: 310201

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309754

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.0878		mg/L		88	85 - 115
Arsenic	0.100	0.0926		mg/L		93	85 - 115
Barium	0.100	0.0973		mg/L		97	85 - 115
Cadmium	0.100	0.0945		mg/L		94	85 - 115
Chromium	0.100	0.0946		mg/L		95	85 - 115
Cobalt	0.100	0.0941		mg/L		94	85 - 115
Lead	0.100	0.0963		mg/L		96	85 - 115
Molybdenum	0.100	0.0958		mg/L		96	85 - 115
Selenium	0.100	0.0906		mg/L		91	85 - 115
Thallium	0.100	0.0937		mg/L		94	85 - 115

Lab Sample ID: LCSD 550-309754/3-A
Matrix: Water
Analysis Batch: 309936

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309754

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.0995		mg/L		100	85 - 115	5	20
Arsenic	0.100	0.0989		mg/L		99	85 - 115	3	20
Barium	0.100	0.119	L3	mg/L		119	85 - 115	4	20
Cadmium	0.100	0.0978		mg/L		98	85 - 115	4	20
Chromium	0.100	0.103		mg/L		103	85 - 115	2	20
Cobalt	0.100	0.107		mg/L		107	85 - 115	3	20
Lead	0.100	0.104		mg/L		104	85 - 115	4	20
Molybdenum	0.100	0.0968		mg/L		97	85 - 115	5	20
Selenium	0.100	0.0983		mg/L		98	85 - 115	2	20
Thallium	0.100	0.108		mg/L		108	85 - 115	1	20

Lab Sample ID: LCSD 550-309754/3-A
Matrix: Water
Analysis Batch: 310201

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309754

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.0905		mg/L		90	85 - 115	3	20
Arsenic	0.100	0.0924		mg/L		92	85 - 115	0	20
Barium	0.100	0.100		mg/L		100	85 - 115	3	20

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

Lab Sample ID: LCSD 550-309754/3-A
Matrix: Water
Analysis Batch: 310201

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309754

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium			0.100	0.0953		mg/L		95	85 - 115	1	20
Chromium			0.100	0.0944		mg/L		94	85 - 115	0	20
Cobalt			0.100	0.0946		mg/L		95	85 - 115	0	20
Lead			0.100	0.0955		mg/L		96	85 - 115	1	20
Molybdenum			0.100	0.0971		mg/L		97	85 - 115	1	20
Selenium			0.100	0.0898		mg/L		90	85 - 115	1	20
Thallium			0.100	0.0944		mg/L		94	85 - 115	1	20

Lab Sample ID: 550-209471-3 MS
Matrix: Water
Analysis Batch: 309936

Client Sample ID: CH-CCR-M45A-1023
Prep Type: Total/NA
Prep Batch: 309754

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		0.100	0.103		mg/L		103	70 - 130
Antimony	ND		0.100	0.103		mg/L		103	70 - 130
Arsenic	0.0045		0.100	0.103		mg/L		98	70 - 130
Arsenic	0.0045		0.100	0.103		mg/L		98	70 - 130
Barium	0.013	L3	0.100	0.131		mg/L		118	70 - 130
Barium	0.013	L3	0.100	0.131		mg/L		118	70 - 130
Cadmium	ND		0.100	0.0969		mg/L		97	70 - 130
Cadmium	ND		0.100	0.0969		mg/L		97	70 - 130
Chromium	ND		0.100	0.0972		mg/L		97	70 - 130
Chromium	ND		0.100	0.0972		mg/L		97	70 - 130
Cobalt	ND		0.100	0.102		mg/L		101	70 - 130
Cobalt	ND		0.100	0.102		mg/L		101	70 - 130
Lead	ND		0.100	0.0957		mg/L		96	70 - 130
Lead	ND		0.100	0.0957		mg/L		96	70 - 130
Molybdenum	0.0029	T5	0.100	0.103		mg/L		100	70 - 130
Molybdenum	0.0029	T5	0.100	0.103		mg/L		100	70 - 130
Selenium	ND		0.100	0.0961		mg/L		96	70 - 130
Selenium	ND		0.100	0.0961		mg/L		96	70 - 130
Thallium	ND		0.100	0.0937		mg/L		94	70 - 130
Thallium	ND		0.100	0.0937		mg/L		94	70 - 130

Lab Sample ID: 550-209471-3 MSD
Matrix: Water
Analysis Batch: 309936

Client Sample ID: CH-CCR-M45A-1023
Prep Type: Total/NA
Prep Batch: 309754

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.104		mg/L		104	70 - 130	1	20
Antimony	ND		0.100	0.104		mg/L		104	70 - 130	1	20
Arsenic	0.0045		0.100	0.103		mg/L		99	70 - 130	1	20
Arsenic	0.0045		0.100	0.103		mg/L		99	70 - 130	1	20
Barium	0.013	L3	0.100	0.134		mg/L		121	70 - 130	2	20
Barium	0.013	L3	0.100	0.134		mg/L		121	70 - 130	2	20
Cadmium	ND		0.100	0.0973		mg/L		97	70 - 130	0	20
Cadmium	ND		0.100	0.0973		mg/L		97	70 - 130	0	20
Chromium	ND		0.100	0.0977		mg/L		98	70 - 130	0	20
Chromium	ND		0.100	0.0977		mg/L		98	70 - 130	0	20

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

Lab Sample ID: 550-209471-3 MSD — **Client Sample ID: CH-CCR-M45A-1023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309936 — **Prep Batch: 309754**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	ND		0.100	0.102		mg/L		101	70 - 130	0	20
Cobalt	ND		0.100	0.102		mg/L		101	70 - 130	0	20
Lead	ND		0.100	0.0954		mg/L		95	70 - 130	0	20
Lead	ND		0.100	0.0954		mg/L		95	70 - 130	0	20
Molybdenum	0.0029	T5	0.100	0.103		mg/L		100	70 - 130	1	20
Molybdenum	0.0029	T5	0.100	0.103		mg/L		100	70 - 130	1	20
Selenium	ND		0.100	0.0935		mg/L		93	70 - 130	3	20
Selenium	ND		0.100	0.0935		mg/L		93	70 - 130	3	20
Thallium	ND		0.100	0.0939		mg/L		94	70 - 130	0	20
Thallium	ND		0.100	0.0939		mg/L		94	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-310014/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310057 — **Prep Batch: 310014**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/26/23 12:18	10/26/23 14:55	1

Lab Sample ID: LCS 550-310014/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310057 — **Prep Batch: 310014**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00480		mg/L		96	85 - 115		

Lab Sample ID: LCSD 550-310014/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310057 — **Prep Batch: 310014**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00444		mg/L		89	85 - 115	8	20

Lab Sample ID: 550-209471-17 MS — **Client Sample ID: CH-CCR-W-126R-1023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310057 — **Prep Batch: 310014**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00546		mg/L		109	70 - 130		

Lab Sample ID: 550-209570-B-2-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310057 — **Prep Batch: 310014**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00448		mg/L		90	70 - 130	2	20

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-310263/159
Matrix: Water
Analysis Batch: 310263

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			10/30/23 14:33	1

Lab Sample ID: LCS 550-310263/160
Matrix: Water
Analysis Batch: 310263

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.916		mg/L		92	90 - 110		

Lab Sample ID: LCSD 550-310263/161
Matrix: Water
Analysis Batch: 310263

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.936		mg/L		94	90 - 110	2	20

Lab Sample ID: 550-209471-1 MS
Matrix: Water
Analysis Batch: 310263

Client Sample ID: CH-CCR-M43A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.37		1.00	1.40		mg/L		103	90 - 110		

Lab Sample ID: 550-209471-1 MSD
Matrix: Water
Analysis Batch: 310263

Client Sample ID: CH-CCR-M43A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.37		1.00	1.36		mg/L		99	90 - 110	3	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-631180/22
Matrix: Water
Analysis Batch: 631180

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			10/25/23 12:52	1

Lab Sample ID: LCS 280-631180/21
Matrix: Water
Analysis Batch: 631180

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			5.00	5.01		mg/L		100	90 - 110		

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 550-209471-1 MS
Matrix: Water
Analysis Batch: 631180

Client Sample ID: CH-CCR-M43A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	ND		4.00	3.88		mg/L		97	90 - 110

Lab Sample ID: 550-209471-1 MSD
Matrix: Water
Analysis Batch: 631180

Client Sample ID: CH-CCR-M43A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		4.00	3.83		mg/L		96	90 - 110	1	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-309971/4
Matrix: Water
Analysis Batch: 309971

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			10/25/23 15:28	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			10/25/23 15:28	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			10/25/23 15:28	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			10/25/23 15:28	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			10/25/23 15:28	1

Lab Sample ID: LCS 550-309971/3
Matrix: Water
Analysis Batch: 309971

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity as CaCO3			250	242		mg/L		97	90 - 110

Lab Sample ID: LCSD 550-309971/13
Matrix: Water
Analysis Batch: 309971

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	243		mg/L		97	90 - 110	1	20

Lab Sample ID: 550-209588-D-1 DU
Matrix: Water
Analysis Batch: 309971

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	210			208		mg/L				0	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	210			208		mg/L				0	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

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

Lab Sample ID: MB 550-309802/1
Matrix: Water
Analysis Batch: 309802

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			10/23/23 15:06	1

Lab Sample ID: LCS 550-309802/2
Matrix: Water
Analysis Batch: 309802

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	998		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-309802/3
Matrix: Water
Analysis Batch: 309802

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	992		mg/L		99	90 - 110	1	10

Lab Sample ID: 550-209293-A-2 DU
Matrix: Water
Analysis Batch: 309802

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1100			1170		mg/L				4	10

Lab Sample ID: 550-209471-4 DU
Matrix: Water
Analysis Batch: 309802

Client Sample ID: CH-CCR-M46A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	12000			11900		mg/L				1	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-310003/1
Matrix: Water
Analysis Batch: 310003

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.7	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-310003/13
Matrix: Water
Analysis Batch: 310003

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: LCSSRM 550-310003/25
Matrix: Water
Analysis Batch: 310003

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-310003/37
Matrix: Water
Analysis Batch: 310003

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Lab Sample ID: 550-209471-3 DU
Matrix: Water
Analysis Batch: 310003

Client Sample ID: CH-CCR-M45A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.3	H5		7.3		SU				0	5
Temperature	9.5	H5 T5		9.4		Degrees C				1	

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 550-310248/5
Matrix: Water
Analysis Batch: 310248

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			10/30/23 15:16	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			10/30/23 15:16	1
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			10/30/23 15:16	1

Lab Sample ID: LCS 550-310248/8
Matrix: Water
Analysis Batch: 310248

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	18.3		mg/L		92	90 - 110		
Dissolved Organic Carbon - Duplicate			20.0	18.3		mg/L		92	90 - 110		
Dissolved Organic Carbon - Quad			20.0	18.3		mg/L		92	90 - 110		

Lab Sample ID: LCSD 550-310248/9
Matrix: Water
Analysis Batch: 310248

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	18.6		mg/L		93	90 - 110	1	20
Dissolved Organic Carbon - Duplicate			20.0	18.6		mg/L		93	90 - 110	1	20
Dissolved Organic Carbon - Quad			20.0	18.6		mg/L		93	90 - 110	1	20

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 550-209145-A-3 MSD
Matrix: Water
Analysis Batch: 310248

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	5.2	M1	20.0	27.8	M1	mg/L		113	90 - 110	2	20
Dissolved Organic Carbon - Duplicate	5.2	M1	20.0	27.8	M1	mg/L		113	90 - 110	2	20
Dissolved Organic Carbon - Quad	5.2	M1	20.0	27.8	M1	mg/L		113	90 - 110	2	20

Lab Sample ID: 550-209145-C-3 MS
Matrix: Water
Analysis Batch: 310248

Client Sample ID: Matrix Spike
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	5.2	M1	20.0	27.2		mg/L		110	90 - 110
Dissolved Organic Carbon - Duplicate	5.2	M1	20.0	27.2		mg/L		110	90 - 110
Dissolved Organic Carbon - Quad	5.2	M1	20.0	27.2		mg/L		110	90 - 110

Lab Sample ID: MB 550-310716/3
Matrix: Water
Analysis Batch: 310716

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			11/07/23 22:41	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			11/07/23 22:41	1
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			11/07/23 22:41	1

Lab Sample ID: LCS 550-310716/5
Matrix: Water
Analysis Batch: 310716

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon			20.0	19.6		mg/L		98	90 - 110
Dissolved Organic Carbon - Duplicate			20.0	19.3		mg/L		97	90 - 110
Dissolved Organic Carbon - Quad			20.0	19.6		mg/L		98	90 - 110

Lab Sample ID: LCSD 550-310716/30
Matrix: Water
Analysis Batch: 310716

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.3		mg/L		96	90 - 110	1	20
Dissolved Organic Carbon - Duplicate			20.0	19.0		mg/L		95	90 - 110	2	20
Dissolved Organic Carbon - Quad			20.0	19.3		mg/L		96	90 - 110	1	20

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 550-209471-12 MS
Matrix: Water
Analysis Batch: 310716

Client Sample ID: CH-CCR-M66A-1023
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	2.7		20.0	22.8		mg/L		100	90 - 110		
Dissolved Organic Carbon - Duplicate	2.7		20.0	22.8		mg/L		100	90 - 110		
Dissolved Organic Carbon - Quad	2.7		20.0	22.8		mg/L		100	90 - 110		

Lab Sample ID: 550-209471-12 MSD
Matrix: Water
Analysis Batch: 310716

Client Sample ID: CH-CCR-M66A-1023
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	2.7		20.0	21.4		mg/L		93	90 - 110	6	20
Dissolved Organic Carbon - Duplicate	2.7		20.0	21.4		mg/L		93	90 - 110	6	20
Dissolved Organic Carbon - Quad	2.7		20.0	21.4		mg/L		93	90 - 110	6	20

HPLC/IC

Analysis Batch: 309850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	300.0	
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	300.0	
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	300.0	
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	300.0	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	300.0	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	300.0	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	300.0	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	300.0	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	300.0	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	300.0	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	300.0	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	300.0	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	300.0	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	300.0	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	300.0	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	300.0	
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	300.0	
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	300.0	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	300.0	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	300.0	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	300.0	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	300.0	
MB 550-309850/2	Method Blank	Total/NA	Water	300.0	
LCS 550-309850/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-309850/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209102-A-1 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-209102-A-1 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 310211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	300.0	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	300.0	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	300.0	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	300.0	
MB 550-310211/2	Method Blank	Total/NA	Water	300.0	
LCS 550-310211/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-310211/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209568-B-5 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-209568-B-5 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 310213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	300.0	
MB 550-310213/2	Method Blank	Total/NA	Water	300.0	
LCS 550-310213/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-310213/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209476-A-15 MS	Matrix Spike	Total/NA	Water	300.0	
550-209476-A-15 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

HPLC/IC

Analysis Batch: 310443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	9056A	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	9056A	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	9056A	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	9056A	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	9056A	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	9056A	
MB 550-310443/2	Method Blank	Total/NA	Water	300.0	
LCS 550-310443/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-310443/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209471-4 MS	CH-CCR-M46A-1023	Total/NA	Water	300.0	
550-209471-4 MS	CH-CCR-M46A-1023	Total/NA	Water	9056A	
550-209471-4 MSD	CH-CCR-M46A-1023	Total/NA	Water	300.0	
550-209471-4 MSD	CH-CCR-M46A-1023	Total/NA	Water	9056A	
550-209876-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-209876-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-209471-4 DU	CH-CCR-M46A-1023	Total/NA	Water	300.0	
550-209471-4 DU	CH-CCR-M46A-1023	Total/NA	Water	9056A	

Metals

Prep Batch: 309745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	200.7	
550-209471-2	CH-CCR-M43A-1023	Dissolved	Water	200.7	
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	200.7	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	200.7	
550-209471-5	CH-CCR-M46A-1023	Dissolved	Water	200.7	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	200.7	
550-209471-7	CH-CCR-M50A-1023	Dissolved	Water	200.7	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	200.7	
550-209471-9	CH-CCR-M51A-1023	Dissolved	Water	200.7	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	200.7	
550-209471-11	CH-CCR-M65A-1023	Dissolved	Water	200.7	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	200.7	
550-209471-13	CH-CCR-M66A-1023	Dissolved	Water	200.7	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	200.7	
550-209471-15	CH-CCR-M67A-1023	Dissolved	Water	200.7	
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	200.7	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	200.7	
550-209471-18	CH-CCR-W-126R-1023	Dissolved	Water	200.7	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	200.7	
550-209471-20	CH-CCR-BudHunt-1023	Dissolved	Water	200.7	
MB 550-309745/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-309745/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-309745/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-209471-1 MS	CH-CCR-M43A-1023	Total/NA	Water	200.7	
550-209471-1 MSD	CH-CCR-M43A-1023	Total/NA	Water	200.7	

Prep Batch: 309754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 309754 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-2	CH-CCR-M43A-1023	Dissolved	Water	200.8	
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	200.8	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	200.8	
550-209471-5	CH-CCR-M46A-1023	Dissolved	Water	200.8	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	200.8	
550-209471-7	CH-CCR-M50A-1023	Dissolved	Water	200.8	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	200.8	
550-209471-9	CH-CCR-M51A-1023	Dissolved	Water	200.8	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	200.8	
550-209471-11	CH-CCR-M65A-1023	Dissolved	Water	200.8	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	200.8	
550-209471-13	CH-CCR-M66A-1023	Dissolved	Water	200.8	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	200.8	
550-209471-15	CH-CCR-M67A-1023	Dissolved	Water	200.8	
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	200.8	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	200.8	
550-209471-18	CH-CCR-W-126R-1023	Dissolved	Water	200.8	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	200.8	
550-209471-20	CH-CCR-BudHunt-1023	Dissolved	Water	200.8	
MB 550-309754/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-309754/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-309754/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-209471-3 MS	CH-CCR-M45A-1023	Total/NA	Water	200.8	
550-209471-3 MSD	CH-CCR-M45A-1023	Total/NA	Water	200.8	

Analysis Batch: 309936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	200.8 LL	309754
550-209471-2	CH-CCR-M43A-1023	Dissolved	Water	200.8 LL	309754
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	200.8 LL	309754
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	200.8 LL	309754
550-209471-5	CH-CCR-M46A-1023	Dissolved	Water	200.8 LL	309754
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	200.8 LL	309754
550-209471-7	CH-CCR-M50A-1023	Dissolved	Water	200.8 LL	309754
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	200.8 LL	309754
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	200.8 LL	309754
550-209471-11	CH-CCR-M65A-1023	Dissolved	Water	200.8 LL	309754
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	200.8 LL	309754
550-209471-13	CH-CCR-M66A-1023	Dissolved	Water	200.8 LL	309754
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	200.8 LL	309754
550-209471-15	CH-CCR-M67A-1023	Dissolved	Water	200.8 LL	309754
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	200.8 LL	309754
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	200.8 LL	309754
550-209471-18	CH-CCR-W-126R-1023	Dissolved	Water	200.8 LL	309754
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	200.8 LL	309754
550-209471-20	CH-CCR-BudHunt-1023	Dissolved	Water	200.8 LL	309754
MB 550-309754/1-A	Method Blank	Total/NA	Water	200.8 LL	309754
LCS 550-309754/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	309754
LCSD 550-309754/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	309754
550-209471-3 MS	CH-CCR-M45A-1023	Total/NA	Water	200.8 LL	309754
550-209471-3 MSD	CH-CCR-M45A-1023	Total/NA	Water	200.8 LL	309754

Metals

Analysis Batch: 309989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-2	CH-CCR-M43A-1023	Dissolved	Water	200.7	309745
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-5	CH-CCR-M46A-1023	Dissolved	Water	200.7	309745
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-7	CH-CCR-M50A-1023	Dissolved	Water	200.7	309745
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-9	CH-CCR-M51A-1023	Dissolved	Water	200.7	309745
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-11	CH-CCR-M65A-1023	Dissolved	Water	200.7	309745
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-13	CH-CCR-M66A-1023	Dissolved	Water	200.7	309745
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-15	CH-CCR-M67A-1023	Dissolved	Water	200.7	309745
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-18	CH-CCR-W-126R-1023	Dissolved	Water	200.7	309745
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-20	CH-CCR-BudHunt-1023	Dissolved	Water	200.7	309745
MB 550-309745/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	309745
LCS 550-309745/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	309745
LCSD 550-309745/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-1 MS	CH-CCR-M43A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-1 MSD	CH-CCR-M43A-1023	Total/NA	Water	200.7 Rev 4.4	309745

Prep Batch: 310014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	245.1	
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	245.1	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	245.1	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	245.1	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	245.1	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	245.1	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	245.1	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	245.1	
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	245.1	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	245.1	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	245.1	
MB 550-310014/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-310014/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-310014/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-209471-17 MS	CH-CCR-W-126R-1023	Total/NA	Water	245.1	
550-209570-B-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 310057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	245.1	310014
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	245.1	310014
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	245.1	310014
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	245.1	310014

Metals (Continued)

Analysis Batch: 310057 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	245.1	310014
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	245.1	310014
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	245.1	310014
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	245.1	310014
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	245.1	310014
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	245.1	310014
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	245.1	310014
MB 550-310014/1-A	Method Blank	Total/NA	Water	245.1	310014
LCS 550-310014/2-A	Lab Control Sample	Total/NA	Water	245.1	310014
LCSD 550-310014/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	310014
550-209471-17 MS	CH-CCR-W-126R-1023	Total/NA	Water	245.1	310014
550-209570-B-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	310014

Analysis Batch: 310151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	200.7 Rev 4.4	309745
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	200.7 Rev 4.4	309745

Analysis Batch: 310201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	200.8 LL	309754
550-209471-9	CH-CCR-M51A-1023	Dissolved	Water	200.8 LL	309754
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	200.8 LL	309754
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	200.8 LL	309754
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	200.8 LL	309754
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	200.8 LL	309754
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	200.8 LL	309754
MB 550-309754/1-A	Method Blank	Total/NA	Water	200.8 LL	309754
LCS 550-309754/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	309754
LCSD 550-309754/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	309754

Prep Batch: 376967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total Recoverable	Water	200.7	
550-209471-3	CH-CCR-M45A-1023	Total Recoverable	Water	200.7	
550-209471-4	CH-CCR-M46A-1023	Total Recoverable	Water	200.7	
550-209471-6	CH-CCR-M50A-1023	Total Recoverable	Water	200.7	
550-209471-8	CH-CCR-M51A-1023	Total Recoverable	Water	200.7	
550-209471-10	CH-CCR-M65A-1023	Total Recoverable	Water	200.7	
550-209471-12	CH-CCR-M66A-1023	Total Recoverable	Water	200.7	
550-209471-14	CH-CCR-M67A-1023	Total Recoverable	Water	200.7	
550-209471-16	CH-CCR-W125-1023	Total Recoverable	Water	200.7	
550-209471-17	CH-CCR-W-126R-1023	Total Recoverable	Water	200.7	
550-209471-19	CH-CCR-BudHunt-1023	Total Recoverable	Water	200.7	
MB 570-376967/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 570-376967/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 570-376967/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

Metals (Continued)

Prep Batch: 376967 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-8 MS	CH-CCR-M51A-1023	Total Recoverable	Water	200.7	
550-209471-8 MSD	CH-CCR-M51A-1023	Total Recoverable	Water	200.7	

Analysis Batch: 378051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-3	CH-CCR-M45A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-4	CH-CCR-M46A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-6	CH-CCR-M50A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-8	CH-CCR-M51A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-14	CH-CCR-M67A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-16	CH-CCR-W125-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-17	CH-CCR-W-126R-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-19	CH-CCR-BudHunt-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
MB 570-376967/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	376967
LCS 570-376967/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	376967
LCSD 570-376967/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-8 MS	CH-CCR-M51A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-8 MSD	CH-CCR-M51A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967

Analysis Batch: 379296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-10	CH-CCR-M65A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967
550-209471-12	CH-CCR-M66A-1023	Total Recoverable	Water	200.7 Rev 4.4	376967

General Chemistry

Analysis Batch: 309802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	SM 2540C	
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	SM 2540C	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	SM 2540C	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	SM 2540C	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	SM 2540C	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	SM 2540C	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	SM 2540C	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	SM 2540C	
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	SM 2540C	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	SM 2540C	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	SM 2540C	
MB 550-309802/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-309802/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-309802/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-209293-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	
550-209471-4 DU	CH-CCR-M46A-1023	Total/NA	Water	SM 2540C	

Analysis Batch: 309971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	SM 2320B	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	SM 2320B	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 309971 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	SM 2320B	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	SM 2320B	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	SM 2320B	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	SM 2320B	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	SM 2320B	
MB 550-309971/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-309971/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-309971/13	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-209588-D-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 310003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-3	CH-CCR-M45A-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-16	CH-CCR-W125-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	SM 4500 H+ B	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-310003/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-310003/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-310003/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-310003/37	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-209471-3 DU	CH-CCR-M45A-1023	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 310248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Dissolved	Water	SM 5310B	
550-209471-4	CH-CCR-M46A-1023	Dissolved	Water	SM 5310B	
550-209471-6	CH-CCR-M50A-1023	Dissolved	Water	SM 5310B	
550-209471-8	CH-CCR-M51A-1023	Dissolved	Water	SM 5310B	
550-209471-10	CH-CCR-M65A-1023	Dissolved	Water	SM 5310B	
MB 550-310248/5	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-310248/8	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-310248/9	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-209145-A-3 MSD	Matrix Spike Duplicate	Dissolved	Water	SM 5310B	
550-209145-C-3 MS	Matrix Spike	Dissolved	Water	SM 5310B	

Analysis Batch: 310263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	350.1	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	350.1	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	350.1	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	350.1	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	350.1	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	350.1	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 310263 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	350.1	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	350.1	
MB 550-310263/159	Method Blank	Total/NA	Water	350.1	
LCS 550-310263/160	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-310263/161	Lab Control Sample Dup	Total/NA	Water	350.1	
550-209471-1 MS	CH-CCR-M43A-1023	Total/NA	Water	350.1	
550-209471-1 MSD	CH-CCR-M43A-1023	Total/NA	Water	350.1	

Analysis Batch: 310716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-12	CH-CCR-M66A-1023	Dissolved	Water	SM 5310B	
550-209471-14	CH-CCR-M67A-1023	Dissolved	Water	SM 5310B	
550-209471-17	CH-CCR-W-126R-1023	Dissolved	Water	SM 5310B	
550-209471-19	CH-CCR-BudHunt-1023	Dissolved	Water	SM 5310B	
MB 550-310716/3	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-310716/5	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-310716/30	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-209471-12 MS	CH-CCR-M66A-1023	Dissolved	Water	SM 5310B	
550-209471-12 MSD	CH-CCR-M66A-1023	Dissolved	Water	SM 5310B	

Analysis Batch: 631180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-1	CH-CCR-M43A-1023	Total/NA	Water	353.2	
550-209471-4	CH-CCR-M46A-1023	Total/NA	Water	353.2	
550-209471-6	CH-CCR-M50A-1023	Total/NA	Water	353.2	
550-209471-8	CH-CCR-M51A-1023	Total/NA	Water	353.2	
550-209471-10	CH-CCR-M65A-1023	Total/NA	Water	353.2	
550-209471-12	CH-CCR-M66A-1023	Total/NA	Water	353.2	
550-209471-14	CH-CCR-M67A-1023	Total/NA	Water	353.2	
550-209471-17	CH-CCR-W-126R-1023	Total/NA	Water	353.2	
550-209471-19	CH-CCR-BudHunt-1023	Total/NA	Water	353.2	
MB 280-631180/22	Method Blank	Total/NA	Water	353.2	
LCS 280-631180/21	Lab Control Sample	Total/NA	Water	353.2	
550-209471-1 MS	CH-CCR-M43A-1023	Total/NA	Water	353.2	
550-209471-1 MSD	CH-CCR-M43A-1023	Total/NA	Water	353.2	

Lab Chronicle

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M43A-1023
Date Collected: 10/16/23 16:23
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/21/23 17:43
Total/NA	Analysis	300.0		20	309850	MMH	EET PHX	10/21/23 18:01
Total/NA	Analysis	300.0		20	310213	MMH	EET PHX	10/31/23 12:43
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		1	378051	P1R	EET CAL 4	10/27/23 16:00
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 19:33
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 18:53
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:36
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:38
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 12:54
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:14
Dissolved	Analysis	SM 5310B		1	310248	RDC	EET PHX	10/30/23 23:09

Client Sample ID: CH-CCR-M43A-1023
Date Collected: 10/16/23 16:23
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Dissolved	Analysis	200.7		1	309989	GLW	EET PHX	10/25/23 19:36
Dissolved	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Dissolved	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 18:55

Client Sample ID: CH-CCR-M45A-1023
Date Collected: 10/17/23 13:38
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/21/23 18:19
Total/NA	Analysis	300.0		20	309850	MMH	EET PHX	10/21/23 18:38
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/31/23 02:29
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		2	378051	P1R	EET CAL 4	10/27/23 16:41
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 19:39
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 18:49
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:38
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]

Lab Chronicle

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M45A-1023
Date Collected: 10/17/23 13:38
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:16

Client Sample ID: CH-CCR-M46A-1023
Date Collected: 10/16/23 13:22
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/21/23 19:51
Total/NA	Analysis	300.0		20	309850	MMH	EET PHX	10/21/23 20:10
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/31/23 02:57
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 16:40
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		2	378051	P1R	EET CAL 4	10/27/23 17:04
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 19:42
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		10	310151	GLW	EET PHX	10/26/23 20:40
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 18:51
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:40
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:42
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:00
Total/NA	Analysis	SM 2320B		1	309971	MAN	EET PHX	10/25/23 18:49
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:18
Dissolved	Analysis	SM 5310B		1	310248	RDC	EET PHX	10/30/23 23:32

Client Sample ID: CH-CCR-M46A-1023
Date Collected: 10/16/23 13:22
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Dissolved	Analysis	200.7		1	309989	GLW	EET PHX	10/25/23 19:45
Dissolved	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Dissolved	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 18:57

Client Sample ID: CH-CCR-M50A-1023
Date Collected: 10/17/23 10:21
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/21/23 20:28

Lab Chronicle

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M50A-1023
Date Collected: 10/17/23 10:21
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/21/23 20:47
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 18:48
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		2	378051	P1R	EET CAL 4	10/27/23 17:07
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 19:48
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		10	310151	GLW	EET PHX	10/26/23 20:43
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 18:59
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:42
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:44
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:02
Total/NA	Analysis	SM 2320B		1	309971	MAN	EET PHX	10/25/23 18:57
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:19
Dissolved	Analysis	SM 5310B		1	310248	RDC	EET PHX	10/30/23 23:49

Client Sample ID: CH-CCR-M50A-1023
Date Collected: 10/17/23 10:21
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Dissolved	Analysis	200.7		1	309989	GLW	EET PHX	10/25/23 19:50
Dissolved	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Dissolved	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:01

Client Sample ID: CH-CCR-M51A-1023
Date Collected: 10/17/23 09:37
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/21/23 21:05
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/21/23 21:23
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/31/23 03:25
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 19:07
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		2	378051	P1R	EET CAL 4	10/27/23 17:09
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 19:53
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		10	310151	GLW	EET PHX	10/26/23 20:46

Client Sample ID: CH-CCR-M51A-1023
Date Collected: 10/17/23 09:37
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:03
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		10	310201	DSJ	EET PHX	10/27/23 18:43
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:44
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:45
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:04
Total/NA	Analysis	SM 2320B		1	309971	MAN	EET PHX	10/25/23 19:04
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:20
Dissolved	Analysis	SM 5310B		1	310248	RDC	EET PHX	10/31/23 00:06

Client Sample ID: CH-CCR-M51A-1023
Date Collected: 10/17/23 09:37
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Dissolved	Analysis	200.7		1	309989	GLW	EET PHX	10/25/23 19:56
Dissolved	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Dissolved	Analysis	200.8 LL		10	310201	DSJ	EET PHX	10/27/23 18:45

Client Sample ID: CH-CCR-M65A-1023
Date Collected: 10/16/23 11:19
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/21/23 21:42
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/21/23 22:00
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 19:25
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		2	379296	K1UV	EET CAL 4	11/01/23 10:52
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 19:59
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		10	310151	GLW	EET PHX	10/26/23 20:49
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:07
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:50
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:47
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:06
Total/NA	Analysis	SM 2320B		1	309971	MAN	EET PHX	10/25/23 19:10

Lab Chronicle

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M65A-1023
Date Collected: 10/16/23 11:19
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:21
Dissolved	Analysis	SM 5310B		1	310248	RDC	EET PHX	10/31/23 00:29

Client Sample ID: CH-CCR-M65A-1023
Date Collected: 10/16/23 11:19
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Dissolved	Analysis	200.7		1	309989	GLW	EET PHX	10/25/23 20:07
Dissolved	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Dissolved	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:15

Client Sample ID: CH-CCR-M66A-1023
Date Collected: 10/16/23 10:15
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/21/23 22:19
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/21/23 23:32
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 19:44
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		2	379296	K1UV	EET CAL 4	11/01/23 10:55
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 20:10
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		10	310151	GLW	EET PHX	10/26/23 20:52
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:17
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	310201	DSJ	EET PHX	10/27/23 18:47
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:52
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:48
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:08
Total/NA	Analysis	SM 2320B		1	309971	MAN	EET PHX	10/25/23 19:18
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:22
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/07/23 23:43

Lab Chronicle

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M66A-1023
Date Collected: 10/16/23 10:15
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Dissolved	Analysis	200.7		1	309989	GLW	EET PHX	10/25/23 20:13
Dissolved	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Dissolved	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:19

Client Sample ID: CH-CCR-M67A-1023
Date Collected: 10/16/23 15:15
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/21/23 23:51
Total/NA	Analysis	300.0		20	309850	MMH	EET PHX	10/22/23 00:09
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 20:02
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		1	378051	P1R	EET CAL 4	10/27/23 16:32
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 20:16
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:21
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	310201	DSJ	EET PHX	10/27/23 18:49
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:54
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:50
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:10
Total/NA	Analysis	SM 2320B		1	309971	MAN	EET PHX	10/25/23 19:25
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:23
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 00:38

Client Sample ID: CH-CCR-M67A-1023
Date Collected: 10/16/23 15:15
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Dissolved	Analysis	200.7		1	309989	GLW	EET PHX	10/25/23 20:19
Dissolved	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Dissolved	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:23

Lab Chronicle

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-W125-1023

Date Collected: 10/17/23 11:16
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 00:27
Total/NA	Analysis	300.0		10	309850	MMH	EET PHX	10/22/23 00:46
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		1	378051	P1R	EET CAL 4	10/27/23 16:34
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 20:22
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:25
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	310201	DSJ	EET PHX	10/27/23 18:51
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:56
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:25

Client Sample ID: CH-CCR-W-126R-1023

Date Collected: 10/16/23 09:29
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 01:04
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/22/23 01:23
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/31/23 05:17
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		2	378051	P1R	EET CAL 4	10/27/23 17:22
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 20:24
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		10	310151	GLW	EET PHX	10/26/23 20:55
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:27
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	310201	DSJ	EET PHX	10/27/23 18:53
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 15:28
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:51
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:12
Total/NA	Analysis	SM 2320B		1	309971	MAN	EET PHX	10/25/23 19:34
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:26
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 01:00

Lab Chronicle

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-W-126R-1023
Date Collected: 10/16/23 09:29
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Dissolved	Analysis	200.7		1	309989	GLW	EET PHX	10/25/23 20:27
Dissolved	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Dissolved	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:29

Client Sample ID: CH-CCR-BudHunt-1023
Date Collected: 10/17/23 08:40
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 01:41
Total/NA	Analysis	300.0		10	309850	MMH	EET PHX	10/22/23 01:59
Total Recoverable	Prep	200.7			376967	JP8N	EET CAL 4	10/25/23 08:04
Total Recoverable	Analysis	200.7 Rev 4.4		1	378051	P1R	EET CAL 4	10/27/23 16:39
Total/NA	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Total/NA	Analysis	200.7 Rev 4.4		1	309989	GLW	EET PHX	10/25/23 20:30
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:31
Total/NA	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Total/NA	Analysis	200.8 LL		5	310201	DSJ	EET PHX	10/27/23 18:55
Total/NA	Prep	245.1			310014	HHL	EET PHX	10/26/23 12:18
Total/NA	Analysis	245.1		1	310057	HHL	EET PHX	10/26/23 16:01
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:53
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:26
Total/NA	Analysis	SM 2320B		1	309971	MAN	EET PHX	10/25/23 19:39
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:27
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 01:16

Client Sample ID: CH-CCR-BudHunt-1023
Date Collected: 10/17/23 08:40
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209471-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309745	SGO	EET PHX	10/23/23 06:23
Dissolved	Analysis	200.7		1	309989	GLW	EET PHX	10/25/23 20:33
Dissolved	Prep	200.8			309754	SGO	EET PHX	10/23/23 09:42
Dissolved	Analysis	200.8 LL		5	309936	DSJ	EET PHX	10/24/23 19:33

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8 LL	200.8	Water	Molybdenum
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-23
California	SCAQMD LAP	17LA0919	11-30-23
California	State	3082	07-31-24
Nevada	State	CA00111	07-31-24
Oregon	NELAP	4175	02-02-24
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-23 *

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-23

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

Method Summary

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

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
9056A	Anions, Ion Chromatography	SW846	EET PHX
200.7	Dissolved Metals by ICP	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET CAL 4
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET CAL 4
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209471

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	1 of 2 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 - Alk. as	9056A - Fluoride	Sample Specific Notes:
CH-CCR-M43A-1023 1+2	10/16/23	1623	G	W	10	*		X	X			X	X	X	X	X	X	X	X	X	X		
CH-CCR-M45A-1023 3	10/17/23	1338	G	W	3	N		X			X	X		X		X	X	X					
CH-CCR-M46A-1023 4+5	10/16/23	1322	G	W	11	*		X		X		X	X	X	X	X	X	X	X	X	X	X	X
CH-CCR-M50A-1023 6+7	10/17/23	1021	G	W	11	*		X		X		X	X	X	X	X	X	X	X	X	X	X	X
CH-CCR-M51A-1023 8+9	10/17/23	937	G	W	11	*		X		X		X	X	X	X	X	X	X	X	X	X	X	X
CH-CCR-M65A-1023 10+11	10/16/23	1119	G	W	11	*		X		X		X	X	X	X	X	X	X	X	X	X	X	X
CH-CCR-M66A-1023 12+13	10/16/23	1015	G	W	11	*		X		X		X	X	X	X	X	X	X	X	X	X	X	X
CH-CCR-M67A-1023 14+15	10/16/23	1515	G	W	11	*		X		X		X	X	X	X	X	X	X	X	X	X	X	X
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1		

Low flow
"
"
"
"
"
"

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client

550-209471 Chain of Custody

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	10-20-23 1501			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: EETA PHX	Date/Time: 10/20/23 15:01 +5.0

COO 1.9 | 2.3 | 3.1 | 3.2 | 4.6 | 21:

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

AG

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209471

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	2 of 2 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-W125-1023 16	10/17/23	1116	G	W	3	N		X		X	X		X		X	X	X							Low flow
CH-CCR-W126R-1023 17 18	10/16/23	929	G	W	10	*		X	X		X	X	X	X	X	X	X		X	X	X		X	"
CH-CCR-BudHunt-1023 19 + 20	10/17/23	840	G	W	10	*		X	X		X	X	X	X	X	X	X		X	X	X		X	Port Sample
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								1	4	4	4	4	4	4	4	1	1	2	2	3	3	1	1	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____			
Relinquished by: BSLC	Company: WSP	Date/Time: 10-20-23 1500	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: FEETA PHX	Date/Time: 10/20/23 15:01

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

Coo 1.9 | 2.3 | 3.1 | 3.2 | 4.6 | 2.1c

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38074.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209471-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 11/2/2023			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CH-CCR-M43A-1023 (550-209471-1)	10/16/23	16:23 Arizona		Water			X	1	
CH-CCR-M46A-1023 (550-209471-4)	10/16/23	13:22 Arizona		Water			X	1	
CH-CCR-M50A-1023 (550-209471-6)	10/17/23	10:21 Arizona		Water			X	1	
CH-CCR-M51A-1023 (550-209471-8)	10/17/23	09:37 Arizona		Water			X	1	
CH-CCR-M65A-1023 (550-209471-10)	10/16/23	11:19 Arizona		Water			X	1	
CH-CCR-M66A-1023 (550-209471-12)	10/16/23	10:15 Arizona		Water			X	1	
CH-CCR-M67A-1023 (550-209471-14)	10/16/23	15:15 Arizona		Water			X	1	
CH-CCR-W-126R-1023 (550-209471-17)	10/16/23	09:29 Arizona		Water			X	1	
CH-CCR-BudHunt-1023 (550-209471-19)	10/17/23	08:40 Arizona		Water			X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature] 10-23-23	Date/Time: 15:30	Company: EETSW	Received by: [signature]	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by: [signature]	Date/Time: 10/24/23 0920	Company: EETDEN
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.6 IMMEDIATE CFO.3

Ver: 06/08/2021

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38072.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209471-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 11/2/2023			Preservation C
City: Tustin	TAT Requested (days):			A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			Other:
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Custom 200.7 Metals List	Total Number of containers	Special
			Preservation Code:						
CH-CCR-M43A-1023 (550-209471-1)	10/16/23	16:23 Arizona		Water			X	1	
CH-CCR-M452-1023 (550-209471-3)	10/17/23	13:38 Arizona		Water			X	1	
CH-CCR-M46A-1023 (550-209471-4)	10/16/23	13:22 Arizona		Water			X	1	
CH-CCR-M50A-1023 (550-209471-6)	10/17/23	10:21 Arizona		Water			X	1	
CH-CCR-M51A-1023 (550-209471-8)	10/17/23	09:37 Arizona		Water			X	1	
CH-CCR-M65A-1023 (550-209471-10)	10/16/23	11:19 Arizona		Water			X	1	
CH-CCR-M66A-1023 (550-209471-12)	10/16/23	10:15 Arizona		Water			X	1	
CH-CCR-M67A-1023 (550-209471-14)	10/16/23	15:15 Arizona		Water			X	1	
CH-CCR-W125-1023 (550-209471-16)	10/17/23	11:16 Arizona		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under c laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pr accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Test

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer tha
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Gust O-25-23	Date/Time: 15:30	Company: EESW	Received by: Fedex	Date/Time:	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10/24/23 0935	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.6/1

550-209471 Chain of Custody

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofir

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38073.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209471-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 11/2/2023			Preservation Codes:
City: Tustin	TAT Requested (days):			A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Aci I - Ice J - DI Water K - EDTA L - EDA
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			Other:
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Custom 200.7 Metals List	Total Number of containers	Special
			Preservation Code:						
CH-CCR-W125-1023 (550-209471-16)	10/17/23	11:16 Arizona		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under c laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pr accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testi

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer tha
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofi

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38072.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209471-
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 11/2/2023			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Ac
I - Ice
J - DI Water
K - EDTA
L - EDA
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Custom 200.7 Metals List	Total Number of containers	Special
			Preservation Code:						
CH-CCR-W-126R-1023 (550-209471-17)	10/16/23	09:29 Arizona		Water			X	1	
CH-CCR-BudHunt-1023 (550-209471-19)	10/17/23	08:40 Arizona		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under c laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pr accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Test

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer tha
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:
1	[illegible] 10-23-23	15:30	CES	Fedex	
2					
3					

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:


TestAmerica
THE LEADER IN ENVIRONMENTAL TESTI
eurofins | Environment Testing TestAmerica
2219793
ORIGIN ID:INWA (602) 437-3340
TESTAMERICA-PHOENIX
TESTAMERICA
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US
SHIP DATE: 23OCT23
ACTWGT: 52.60 LB
CAD: 0875926/CAFE3
DIMS: 25x13x14 IN
BILL RECIPIENT
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUT
2841 DOW AVENUE, SUITE 100
TUSTIN CA 92780
(714) 895-5494
REF: S550-86672
PO: YES
DEPT: SAMPLE RECEIVING
TUE - 24 OCT 1
TRK# 0201 6388 9413 2200
PRIORITY OVERI
QZ DTHA
CA-U
Custody Seal
DATE
10-23-23
SIGNATURE
eurofins | Environment Testing TestAmerica
2219793


550-209471 Waybill

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209471-1
SDG Number: APS Cholla Power Plant (FAP)

Login Number: 209471
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209471-1
SDG Number: APS Cholla Power Plant (FAP)

Login Number: 209471
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 10/24/23 01:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	2219793
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209471-1
SDG Number: APS Cholla Power Plant (FAP)

Login Number: 209471
List Number: 3
Creator: Rystrom, Joshua R

List Source: Eurofins Denver
List Creation: 10/24/23 05:29 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 11/14/2023 9:19:18 AM

JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plant (BAP)

JOB NUMBER

550-209476-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

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Job Notes

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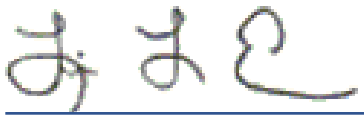

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11/14/2023 9:19:18 AM

Authorized for release by
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
D5	Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Metals

Qualifier	Qualifier Description
L3	The associated blank spike recovery was above method acceptance limits.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-209476-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-209476-1

Receipt
The samples were received on 10/20/2023 3:01 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.9º C, 2.1º C, 2.3º C, 3.1º C, 3.2º C and 4.6º C.

HPLC/IC
Method 300.0: The following sample was diluted due to the nature of the sample matrix: CH-CCR-MW72M-1023 (550-209476-9). Elevated reporting limits (RLs) are provided. The following samples contain an analyte not part of the method profile which interferes with fluoride providing an indiscernible chromatogram. A 2x dilution is required.

Method 300.0: Due to the high concentration of chloride and sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-309930 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 300.0: Due to the high concentration of chloride and sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-309960 could not be evaluated for accuracy and precision of those analytes. The associated laboratory control sample (LCS) met acceptance criteria.

Methods 300.0, 9056A: The following samples were analyzed outside of analytical holding time due to analyst scheduling errors: (550-209060-O-1) and (550-209060-O-1 ^10)

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

Metals
Method 200.8 LL: The laboratory control sample (LCS) associated with preparation batch 550-309752 and analytical batch 550-309934 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. CH-CCR-W306-1023 (550-209476-21) and CH-CCR-W314-1023 (550-209476-23)

Method 200.8 LL: The laboratory control sample (LCS) associated with preparation batch 550-309755 and analytical batch 550-309935 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. CH-CCR-M53A-1023 (550-209476-1), CH-CCR-MW69A-1023 (550-209476-3), CH-CCR-MW70M-1023 (550-209476-5), CH-CCR-MW71A-1023 (550-209476-7), CH-CCR-MW72M-1023 (550-209476-9), CH-CCR-MW73A-1023 (550-209476-11), CH-CCR-MW74M-1023 (550-209476-13), CH-CCR-MW77A-1023 (550-209476-15), CH-CCR-W301-1023 (550-209476-17) and CH-CCR-W303-1023 (550-209476-19)

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

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method SM 2540C: Constant weight was not achieved after 3 drying cycles for the following sample: CH-CCR-MW72M-1023 (550-209476-9).

Method SM 5310B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 550-310867 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Sample Summary

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-209476-1	CH-CCR-M53A-1023	Water	10/19/23 11:48	10/20/23 15:01
550-209476-2	CH-CCR-M53A-1023	Water	10/19/23 11:48	10/20/23 15:01
550-209476-3	CH-CCR-MW69A-1023	Water	10/19/23 09:11	10/20/23 15:01
550-209476-4	CH-CCR-MW69A-1023	Water	10/19/23 09:11	10/20/23 15:01
550-209476-5	CH-CCR-MW70M-1023	Water	10/18/23 15:43	10/20/23 15:01
550-209476-6	CH-CCR-MW70M-1023	Water	10/18/23 15:43	10/20/23 15:01
550-209476-7	CH-CCR-MW71A-1023	Water	10/18/23 13:12	10/20/23 15:01
550-209476-8	CH-CCR-MW71A-1023	Water	10/18/23 13:12	10/20/23 15:01
550-209476-9	CH-CCR-MW72M-1023	Water	10/18/23 14:02	10/20/23 15:01
550-209476-10	CH-CCR-MW72M-1023	Water	10/18/23 14:02	10/20/23 15:01
550-209476-11	CH-CCR-MW73A-1023	Water	10/18/23 11:00	10/20/23 15:01
550-209476-12	CH-CCR-MW73A-1023	Water	10/18/23 11:00	10/20/23 15:01
550-209476-13	CH-CCR-MW74M-1023	Water	10/18/23 10:00	10/20/23 15:01
550-209476-14	CH-CCR-MW74M-1023	Water	10/18/23 10:00	10/20/23 15:01
550-209476-15	CH-CCR-MW77A-1023	Water	10/17/23 14:54	10/20/23 15:01
550-209476-16	CH-CCR-MW77A-1023	Water	10/17/23 14:54	10/20/23 15:01
550-209476-17	CH-CCR-W301-1023	Water	10/19/23 15:52	10/20/23 15:01
550-209476-18	CH-CCR-W301-1023	Water	10/19/23 15:52	10/20/23 15:01
550-209476-19	CH-CCR-W303-1023	Water	10/19/23 13:35	10/20/23 15:01
550-209476-20	CH-CCR-W303-1023	Water	10/19/23 13:35	10/20/23 15:01
550-209476-21	CH-CCR-W306-1023	Water	10/19/23 10:30	10/20/23 15:01
550-209476-22	CH-CCR-W306-1023	Water	10/19/23 10:30	10/20/23 15:01
550-209476-23	CH-CCR-W314-1023	Water	10/19/23 08:45	10/20/23 15:01
550-209476-24	CH-CCR-W314-1023	Water	10/19/23 08:45	10/20/23 15:01

Detection Summary

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-M53A-1023 — Lab Sample ID: 550-209476-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2100	D2	100		mg/L	50		300.0	Total/NA
Fluoride	2.4	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	2900	D2	100		mg/L	50		300.0	Total/NA
Fluoride	2.7	D1	0.80		mg/L	2		9056A	Total/NA
Boron	3.8		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	580	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	5.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.28		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0031		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.012	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Cadmium	0.00069		0.00050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.0085		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.035	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.25		0.050		mg/L	1		350.1	Total/NA
Total Dissolved Solids	7800		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	6.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M53A-1023 — Lab Sample ID: 550-209476-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	4.9		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.7		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	7.4		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-MW69A-1023 — Lab Sample ID: 550-209476-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2500	D2	100		mg/L	50		300.0	Total/NA
Fluoride	1.4	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	2900	D2	100		mg/L	50		300.0	Total/NA
Boron	3.1		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	630		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.50		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	160		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.9		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.1		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1800		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.26		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0025		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.019	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Cobalt	0.015		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.029	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.055		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8400		100		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW69A-1023 (Continued) — Lab Sample ID: 550-209476-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	5.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.3		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW69A-1023 — Lab Sample ID: 550-209476-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	2.8		0.010		mg/L	1		200.7	Dissolved
Cobalt	15		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-MW70M-1023 — Lab Sample ID: 550-209476-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2200	D2	100		mg/L	50		300.0	Total/NA
Fluoride	1.3	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	2700	D2	100		mg/L	50		300.0	Total/NA
Boron	2.3		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	620		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	150		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.7		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	7.9		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1600		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.25		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Barium	0.011	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.0079		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.016		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.030	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	88		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	88		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7500		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	6.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	2.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.2		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW70M-1023 — Lab Sample ID: 550-209476-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	1.7		0.010		mg/L	1		200.7	Dissolved
Cobalt	16		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-MW71A-1023 — Lab Sample ID: 550-209476-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	870	D2	40		mg/L	20		300.0	Total/NA
Fluoride	3.4	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	1200	D2	40		mg/L	20		300.0	Total/NA
Fluoride	3.5	D1	0.80		mg/L	2		9056A	Total/NA
Boron	3.5		0.050		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW71A-1023 (Continued) — Lab Sample ID: 550-209476-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Calcium	630		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	220		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	5.3		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	15		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1600		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.25		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0025		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.013	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Cobalt	0.014		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.034	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.40		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	84		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	84		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7800		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	6.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW71A-1023 — Lab Sample ID: 550-209476-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	5.3		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.6		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	14		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-MW72M-1023 — Lab Sample ID: 550-209476-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	35000	D2	400		mg/L	200		300.0	Total/NA
Sulfate	1800		40		mg/L	20		300.0	Total/NA
Calcium	8200		20		mg/L	10		200.7 Rev 4.4	Total/NA
Magnesium	1000		20		mg/L	10		200.7 Rev 4.4	Total/NA
Manganese	3.2		0.10		mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	130		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Sodium	12000		10		mg/L	20		200.7 Rev 4.4	Total/NA
Lithium	3.8		1.0		mg/L	20		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0076		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.13	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.056		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.0027		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.019	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Selenium	0.0027		0.0025		mg/L	5		200.8 LL	Total/NA
Thallium	0.0015		0.00050		mg/L	5		200.8 LL	Total/NA
Ammonia	0.75		0.050		mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.33		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	21		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	21		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	61000		1000		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW72M-1023 (Continued) — Lab Sample ID: 550-209476-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	6.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	0.55	M2	0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.56	M2	0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.55	M2	0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW72M-1023 — Lab Sample ID: 550-209476-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.2		0.10		mg/L	10		200.7	Dissolved
Arsenic	7.9		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	2.5		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-MW73A-1023 — Lab Sample ID: 550-209476-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2600	D2	100		mg/L	50		300.0	Total/NA
Fluoride	4.2	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	3300	D2	100		mg/L	50		300.0	Total/NA
Fluoride	4.3	D1	0.80		mg/L	2		9056A	Total/NA
Boron	5.2		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	690		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.44		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	300		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.14		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	19		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1800		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.29		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0026		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.012	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.097		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.0087		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.044	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Nitrate Nitrite as N	0.33		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	130		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8900		100		mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	7.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	1.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.2		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW73A-1023 — Lab Sample ID: 550-209476-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.025		0.010		mg/L	1		200.7	Dissolved
Cobalt	8.0		2.5		ug/L	5		200.8 LL	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-MW74M-1023 — Lab Sample ID: 550-209476-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2200	D2	100		mg/L	50		300.0	Total/NA
Fluoride	1.4	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	2600	D2	100		mg/L	50		300.0	Total/NA
Fluoride	1.3	D1	0.80		mg/L	2		9056A	Total/NA
Boron	2.1		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	690		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	140		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.15		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	13		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1500		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.29		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Barium	0.0088	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Cobalt	0.015		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.039	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	86		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	86		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7400		100		mg/L	1		SM 2540C	Total/NA
pH	7.9	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	7.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	0.98		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.99		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.98		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW74M-1023 — Lab Sample ID: 550-209476-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.14		0.010		mg/L	1		200.7	Dissolved
Cobalt	15		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-MW77A-1023 — Lab Sample ID: 550-209476-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3600		100		mg/L	50		300.0	Total/NA
Sulfate	4700		100		mg/L	50		300.0	Total/NA
Fluoride	0.50		0.40		mg/L	1		9056A	Total/NA
Boron	0.72		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	550		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	100		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.66		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.8		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3300		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.58		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0029		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0079	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.0092		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.0046		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.0061	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	220		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000		100		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW77A-1023 (Continued) — Lab Sample ID: 550-209476-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	7.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.3		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW77A-1023 — Lab Sample ID: 550-209476-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.65		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.0		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	5.1		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-W301-1023 — Lab Sample ID: 550-209476-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	5700	D2	100		mg/L	50		300.0	Total/NA
Sulfate	3700	D2	100		mg/L	50		300.0	Total/NA
Boron	0.63		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	750		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	180		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.5		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.2		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	4400		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.67		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0037		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0072	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Cobalt	0.023		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.0059	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Selenium	0.0034		0.0025		mg/L	5		200.8 LL	Total/NA
Nitrate Nitrite as N	13		0.20		mg/L	2		353.2	Total/NA
Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	14000		200		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	7.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	2.9		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.9		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.9		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W301-1023 — Lab Sample ID: 550-209476-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	1.4		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.5		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	22		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-W303-1023 — Lab Sample ID: 550-209476-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3300	D2	100		mg/L	50		300.0	Total/NA
Sulfate	3500	D2	100		mg/L	50		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-W303-1023 (Continued) — Lab Sample ID: 550-209476-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	3.8		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	670		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	220		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.66		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	4.4		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2600		5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.48		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0027		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0037	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.014		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.020		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.031	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	190		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	190		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	8.1	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	1.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.6		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W303-1023 — Lab Sample ID: 550-209476-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.66		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.8		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	20		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-W306-1023 — Lab Sample ID: 550-209476-21

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2100	D2	100		mg/L	50		300.0	Total/NA
Fluoride	1.3	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	11000	D2	400		mg/L	200		300.0	Total/NA
Fluoride	1.0		0.40		mg/L	1		9056A	Total/NA
Beryllium	0.010		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.0		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	420		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	230		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.013		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.4		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	5800		10		mg/L	20		200.7 Rev 4.4	Total/NA
Lithium	0.93		0.050		mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0065		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.012	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.047	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	120		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	120		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	18000		200		mg/L	1		SM 2540C	Total/NA
pH	7.9	H5	1.7		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-W306-1023 (Continued) — Lab Sample ID: 550-209476-21

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Temperature	8.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	2.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.4		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W306-1023 — Lab Sample ID: 550-209476-22

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.010		0.010		mg/L	1		200.7	Dissolved
Arsenic	6.5		2.5		ug/L	5		200.8 LL	Dissolved

Client Sample ID: CH-CCR-W314-1023 — Lab Sample ID: 550-209476-23

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2300	D2	100		mg/L	50		300.0	Total/NA
Fluoride	0.97	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	2600	D2	100		mg/L	50		300.0	Total/NA
Boron	1.5		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	670		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.24		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.36		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0025		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0090	L3	0.0025		mg/L	5		200.8 LL	Total/NA
Cadmium	0.00059		0.00050		mg/L	5		200.8 LL	Total/NA
Chromium	0.039		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.045		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.019	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Total Dissolved Solids	7600		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	7.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Dissolved Organic Carbon	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.3		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W314-1023 — Lab Sample ID: 550-209476-24

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.26		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.5		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	47		2.5		ug/L	5		200.8 LL	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M53A-1023

Date Collected: 10/19/23 11:48
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2100**	**D2**	100		mg/L			10/22/23 03:31	50
Fluoride	**2.4**	**D2**	0.80		mg/L			10/22/23 03:13	2
Sulfate	**2900**	**D2**	100		mg/L			10/22/23 03:31	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.7**	**D1**	0.80		mg/L			11/02/23 20:20	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 18:11	1
Boron	**3.8**		0.050		mg/L		10/23/23 06:31	10/25/23 18:11	1
Calcium	**580**	**M3**	2.0		mg/L		10/23/23 06:31	10/25/23 18:11	1
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:11	1
Manganese	**5.1**		0.010		mg/L		10/23/23 06:31	10/25/23 18:11	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.28**		0.10		mg/L		10/25/23 08:52	10/28/23 09:56	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 17:43	5
Arsenic	**0.0031**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:43	5
Barium	**0.012**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:43	5
Cadmium	**0.00069**		0.00050		mg/L		10/23/23 09:48	10/24/23 17:43	5
Chromium	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 17:43	5
Cobalt	**0.0085**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:43	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:43	5
Molybdenum	**0.035**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:43	5
Selenium	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:43	5
Thallium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:43	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:15	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.25**		0.050		mg/L			10/30/23 14:54	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:30	1
Total Dissolved Solids (SM 2540C)	**7800**		100		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			10/26/23 08:46	1
Temperature (SM 4500 H+ B)	**6.9**	**H5 T5**	0.1		Degrees C			10/26/23 08:46	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.1**		0.50		mg/L			11/08/23 01:37	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.1**		0.50		mg/L			11/08/23 01:37	1

Client Sample ID: CH-CCR-M53A-1023

Lab Sample ID: 550-209476-1
Matrix: Water
Date Collected: 10/19/23 11:48
Date Received: 10/20/23 15:01

General Chemistry - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad (SM 5310B)	**1.1**		0.50		mg/L			11/08/23 01:37	1

Client Sample ID: CH-CCR-M53A-1023

Lab Sample ID: 550-209476-2
Matrix: Water
Date Collected: 10/19/23 11:48
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:14	1
Manganese	**4.9**		0.010		mg/L		10/23/23 06:31	10/25/23 18:14	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.7**		2.5		ug/L		10/23/23 09:48	10/24/23 17:46	5
Cobalt	**7.4**		2.5		ug/L		10/23/23 09:48	10/24/23 17:46	5

Client Sample ID: CH-CCR-MW69A-1023

Lab Sample ID: 550-209476-3
Matrix: Water
Date Collected: 10/19/23 09:11
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2500**	**D2**	100		mg/L			10/22/23 04:08	50
Fluoride	**1.4**	**D2**	0.80		mg/L			10/22/23 03:50	2
Sulfate	**2900**	**D2**	100		mg/L			10/22/23 04:08	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 18:17	1
Boron	**3.1**		0.050		mg/L		10/23/23 06:31	10/25/23 18:17	1
Calcium	**630**		2.0		mg/L		10/23/23 06:31	10/25/23 18:17	1
Iron	**0.50**		0.10		mg/L		10/23/23 06:31	10/25/23 18:17	1
Magnesium	**160**		2.0		mg/L		10/23/23 06:31	10/25/23 18:17	1
Manganese	**2.9**		0.010		mg/L		10/23/23 06:31	10/25/23 18:17	1
Potassium	**5.1**		0.50		mg/L		10/23/23 06:31	10/25/23 18:17	1
Sodium	**1800**		5.0		mg/L		10/23/23 06:31	10/26/23 19:38	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.26**		0.10		mg/L		10/25/23 08:52	10/28/23 10:04	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 17:39	5
Arsenic	**0.0025**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:39	5
Barium	**0.019**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:39	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:39	5
Chromium	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 17:39	5
Cobalt	**0.015**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:39	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:39	5
Molybdenum	**0.029**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:39	5

Client Sample ID: CH-CCR-MW69A-1023

Lab Sample ID: 550-209476-3
Matrix: Water
Date Collected: 10/19/23 09:11
Date Received: 10/20/23 15:01

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:39	5
Thallium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:39	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.055**		0.050		mg/L			11/01/23 13:53	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:42	1
Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			10/24/23 15:35	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 15:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			10/24/23 15:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 15:35	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 15:35	1
Total Dissolved Solids (SM 2540C)	**8400**		100		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			10/26/23 08:48	1
Temperature (SM 4500 H+ B)	**5.9**	**H5 T5**	0.1		Degrees C			10/26/23 08:48	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.3**		0.50		mg/L			11/08/23 02:00	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.3**		0.50		mg/L			11/08/23 02:00	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.3**		0.50		mg/L			11/08/23 02:00	1

Client Sample ID: CH-CCR-MW69A-1023

Lab Sample ID: 550-209476-4
Matrix: Water
Date Collected: 10/19/23 09:11
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:20	1
Manganese	**2.8**		0.010		mg/L		10/23/23 06:31	10/25/23 18:20	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.5		ug/L		10/23/23 09:48	10/24/23 17:41	5
Cobalt	**15**		2.5		ug/L		10/23/23 09:48	10/24/23 17:41	5

Client Sample ID: CH-CCR-MW70M-1023

Lab Sample ID: 550-209476-5
Matrix: Water
Date Collected: 10/18/23 15:43
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2200**	**D2**	100		mg/L			10/22/23 04:45	50

Client Sample ID: CH-CCR-MW70M-1023

Date Collected: 10/18/23 15:43
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-5

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.3**	**D2**	0.80		mg/L			10/22/23 04:27	2
Sulfate	**2700**	**D2**	100		mg/L			10/22/23 04:45	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 18:23	1
Boron	**2.3**		0.050		mg/L		10/23/23 06:31	10/25/23 18:23	1
Calcium	**620**		2.0		mg/L		10/23/23 06:31	10/25/23 18:23	1
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:23	1
Magnesium	**150**		2.0		mg/L		10/23/23 06:31	10/25/23 18:23	1
Manganese	**1.7**		0.010		mg/L		10/23/23 06:31	10/25/23 18:23	1
Potassium	**7.9**		0.50		mg/L		10/23/23 06:31	10/25/23 18:23	1
Sodium	**1600**		5.0		mg/L		10/23/23 06:31	10/26/23 19:41	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.25**		0.10		mg/L		10/25/23 08:52	10/28/23 10:06	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 17:48	5
Arsenic	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:48	5
Barium	**0.011**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:48	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:48	5
Chromium	**0.0079**		0.0050		mg/L		10/23/23 09:48	10/24/23 17:48	5
Cobalt	**0.016**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:48	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:48	5
Molybdenum	**0.030**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:48	5
Selenium	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:48	5
Thallium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:48	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:19	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			11/01/23 13:58	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:44	1
Alkalinity as CaCO3 (SM 2320B)	**88**		6.0		mg/L			10/24/23 15:49	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 15:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**88**		6.0		mg/L			10/24/23 15:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 15:49	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 15:49	1
Total Dissolved Solids (SM 2540C)	**7500**		100		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			10/26/23 08:50	1
Temperature (SM 4500 H+ B)	**6.5**	**H5 T5**	0.1		Degrees C			10/26/23 08:50	1

Client Sample ID: CH-CCR-MW70M-1023

Lab Sample ID: 550-209476-5
Date Collected: 10/18/23 15:43
Matrix: Water
Date Received: 10/20/23 15:01

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	2.2		0.50		mg/L			11/08/23 22:03	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.2		0.50		mg/L			11/08/23 22:03	1
Dissolved Organic Carbon - Quad (SM 5310B)	2.2		0.50		mg/L			11/08/23 22:03	1

Client Sample ID: CH-CCR-MW70M-1023

Lab Sample ID: 550-209476-6
Date Collected: 10/18/23 15:43
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:26	1
Manganese	1.7		0.010		mg/L		10/23/23 06:31	10/25/23 18:26	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.5		ug/L		10/23/23 09:48	10/24/23 17:50	5
Cobalt	16		2.5		ug/L		10/23/23 09:48	10/24/23 17:50	5

Client Sample ID: CH-CCR-MW71A-1023

Lab Sample ID: 550-209476-7
Date Collected: 10/18/23 13:12
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	870	D2	40		mg/L			10/22/23 05:22	20
Fluoride	3.4	D2	0.80		mg/L			10/22/23 05:03	2
Sulfate	1200	D2	40		mg/L			10/22/23 05:22	20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	3.5	D1	0.80		mg/L			11/02/23 20:39	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 18:28	1
Boron	3.5		0.050		mg/L		10/23/23 06:31	10/25/23 18:28	1
Calcium	630		2.0		mg/L		10/23/23 06:31	10/25/23 18:28	1
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:28	1
Magnesium	220		2.0		mg/L		10/23/23 06:31	10/25/23 18:28	1
Manganese	5.3		0.010		mg/L		10/23/23 06:31	10/25/23 18:28	1
Potassium	15		0.50		mg/L		10/23/23 06:31	10/25/23 18:28	1
Sodium	1600		5.0		mg/L		10/23/23 06:31	10/26/23 19:43	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.25		0.10		mg/L		10/25/23 08:52	10/28/23 10:08	2

Client Sample ID: CH-CCR-MW71A-1023

Lab Sample ID: 550-209476-7
Date Collected: 10/18/23 13:12
Matrix: Water
Date Received: 10/20/23 15:01

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 17:52	5
Arsenic	**0.0025**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:52	5
Barium	**0.013**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:52	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:52	5
Chromium	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 17:52	5
Cobalt	**0.014**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:52	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:52	5
Molybdenum	**0.034**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:52	5
Selenium	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:52	5
Thallium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:52	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.40**		0.050		mg/L			11/01/23 13:59	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 13:58	1
Alkalinity as CaCO3 (SM 2320B)	**84**		6.0		mg/L			10/24/23 15:56	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 15:56	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**84**		6.0		mg/L			10/24/23 15:56	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 15:56	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 15:56	1
Total Dissolved Solids (SM 2540C)	**7800**		100		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			10/26/23 08:51	1
Temperature (SM 4500 H+ B)	**6.7**	**H5 T5**	0.1		Degrees C			10/26/23 08:51	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.1**		0.50		mg/L			11/08/23 02:44	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.1**		0.50		mg/L			11/08/23 02:44	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.1**		0.50		mg/L			11/08/23 02:44	1

Client Sample ID: CH-CCR-MW71A-1023

Lab Sample ID: 550-209476-8
Date Collected: 10/18/23 13:12
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:31	1
Manganese	**5.3**		0.010		mg/L		10/23/23 06:31	10/25/23 18:31	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.6**		2.5		ug/L		10/23/23 09:48	10/24/23 17:54	5

Client Sample ID: CH-CCR-MW71A-1023

Lab Sample ID: 550-209476-8

Date Collected: 10/18/23 13:12
Matrix: Water
Date Received: 10/20/23 15:01

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**14**		2.5		ug/L		10/23/23 09:48	10/24/23 17:54	5

Client Sample ID: CH-CCR-MW72M-1023

Lab Sample ID: 550-209476-9

Date Collected: 10/18/23 14:02
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35000**	**D2**	400		mg/L			10/28/23 21:03	200
Fluoride	ND	D1 D5	0.80		mg/L			10/22/23 05:40	2
Sulfate	**1800**		40		mg/L			10/22/23 06:54	20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D2	80		mg/L			10/28/23 21:03	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.010		mg/L		10/23/23 06:31	10/26/23 19:46	10
Boron	ND		0.50		mg/L		10/23/23 06:31	10/26/23 19:46	10
Calcium	**8200**		20		mg/L		10/23/23 06:31	10/26/23 19:46	10
Iron	ND		1.0		mg/L		10/23/23 06:31	10/26/23 19:46	10
Magnesium	**1000**		20		mg/L		10/23/23 06:31	10/26/23 19:46	10
Manganese	**3.2**		0.10		mg/L		10/23/23 06:31	10/26/23 19:46	10
Potassium	**130**		5.0		mg/L		10/23/23 06:31	10/26/23 19:46	10
Sodium	**12000**		10		mg/L		10/23/23 06:31	10/30/23 14:56	20

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**3.8**		1.0		mg/L		10/25/23 08:52	10/31/23 18:18	20

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 17:56	5
Arsenic	**0.0076**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:56	5
Barium	**0.13**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:56	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:56	5
Chromium	**0.056**		0.0050		mg/L		10/23/23 09:48	10/24/23 17:56	5
Cobalt	**0.0027**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:56	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 17:56	5
Molybdenum	**0.019**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 17:56	5
Selenium	**0.0027**		0.0025		mg/L		10/23/23 09:48	10/24/23 17:56	5
Thallium	**0.0015**		0.00050		mg/L		10/23/23 09:48	10/24/23 17:56	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:23	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.75**		0.050		mg/L			11/01/23 14:01	1

Client Sample ID: CH-CCR-MW72M-1023

Lab Sample ID: 550-209476-9

Date Collected: 10/18/23 14:02
Matrix: Water
Date Received: 10/20/23 15:01

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N (EPA 353.2)	0.33		0.10		mg/L			10/25/23 14:00	1
Alkalinity as CaCO3 (SM 2320B)	21		6.0		mg/L			10/24/23 16:02	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 16:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	21		6.0		mg/L			10/24/23 16:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:02	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:02	1
Total Dissolved Solids (SM 2540C)	61000		1000		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	7.6	H5	1.7		SU			10/26/23 08:53	1
Temperature (SM 4500 H+ B)	6.6	H5 T5	0.1		Degrees C			10/26/23 08:53	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	0.55	M2	0.50		mg/L			11/08/23 21:02	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	0.56	M2	0.50		mg/L			11/08/23 21:02	1
Dissolved Organic Carbon - Quad (SM 5310B)	0.55	M2	0.50		mg/L			11/08/23 21:02	1

Client Sample ID: CH-CCR-MW72M-1023

Lab Sample ID: 550-209476-10

Date Collected: 10/18/23 14:02
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		1.0		mg/L		10/23/23 06:31	10/26/23 19:49	10
Manganese	3.2		0.10		mg/L		10/23/23 06:31	10/26/23 19:49	10

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.9		2.5		ug/L		10/23/23 09:48	10/24/23 17:58	5
Cobalt	2.5		2.5		ug/L		10/23/23 09:48	10/24/23 17:58	5

Client Sample ID: CH-CCR-MW73A-1023

Lab Sample ID: 550-209476-11

Date Collected: 10/18/23 11:00
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2600	D2	100		mg/L			10/22/23 07:31	50
Fluoride	4.2	D2	0.80		mg/L			10/22/23 07:12	2
Sulfate	3300	D2	100		mg/L			10/22/23 07:31	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	4.3	D1	0.80		mg/L			11/02/23 20:57	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 18:45	1

Client Sample ID: CH-CCR-MW73A-1023

Date Collected: 10/18/23 11:00
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-11

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**5.2**		0.050		mg/L		10/23/23 06:31	10/25/23 18:45	1
Calcium	**690**		2.0		mg/L		10/23/23 06:31	10/25/23 18:45	1
Iron	**0.44**		0.10		mg/L		10/23/23 06:31	10/25/23 18:45	1
Magnesium	**300**		2.0		mg/L		10/23/23 06:31	10/25/23 18:45	1
Manganese	**0.14**		0.010		mg/L		10/23/23 06:31	10/25/23 18:45	1
Potassium	**19**		0.50		mg/L		10/23/23 06:31	10/25/23 18:45	1
Sodium	**1800**		5.0		mg/L		10/23/23 06:31	10/26/23 19:58	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.29**		0.10		mg/L		10/25/23 08:52	10/28/23 10:13	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 18:06	5
Arsenic	**0.0026**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:06	5
Barium	**0.012**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:06	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:06	5
Chromium	**0.097**		0.0050		mg/L		10/23/23 09:48	10/24/23 18:06	5
Cobalt	**0.0087**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:06	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:06	5
Molybdenum	**0.044**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:06	5
Selenium	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:06	5
Thallium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:06	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			11/01/23 14:02	1
Nitrate Nitrite as N (EPA 353.2)	**0.33**		0.10		mg/L			10/25/23 14:02	1
Alkalinity as CaCO3 (SM 2320B)	**130**		6.0		mg/L			10/24/23 16:06	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 16:06	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**130**		6.0		mg/L			10/24/23 16:06	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:06	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:06	1
Total Dissolved Solids (SM 2540C)	**8900**		100		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	**7.2**	**H5**	1.7		SU			10/26/23 08:55	1
Temperature (SM 4500 H+ B)	**7.6**	**H5 T5**	0.1		Degrees C			10/26/23 08:55	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.2**		0.50		mg/L			11/08/23 04:12	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.2**		0.50		mg/L			11/08/23 04:12	1

Client Sample ID: CH-CCR-MW73A-1023
Lab Sample ID: 550-209476-11
Date Collected: 10/18/23 11:00
Matrix: Water
Date Received: 10/20/23 15:01

General Chemistry - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad (SM 5310B)	**1.2**		0.50		mg/L			11/08/23 04:12	1

Client Sample ID: CH-CCR-MW73A-1023
Lab Sample ID: 550-209476-12
Date Collected: 10/18/23 11:00
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:48	1
Manganese	**0.025**		0.010		mg/L		10/23/23 06:31	10/25/23 18:48	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.5		ug/L		10/23/23 09:48	10/24/23 18:08	5
Cobalt	**8.0**		2.5		ug/L		10/23/23 09:48	10/24/23 18:08	5

Client Sample ID: CH-CCR-MW74M-1023
Lab Sample ID: 550-209476-13
Date Collected: 10/18/23 10:00
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2200**	**D2**	100		mg/L			10/22/23 08:08	50
Fluoride	**1.4**	**D2**	0.80		mg/L			10/22/23 07:49	2
Sulfate	**2600**	**D2**	100		mg/L			10/22/23 08:08	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.3**	**D1**	0.80		mg/L			11/02/23 21:16	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 18:51	1
Boron	**2.1**		0.050		mg/L		10/23/23 06:31	10/25/23 18:51	1
Calcium	**690**		2.0		mg/L		10/23/23 06:31	10/25/23 18:51	1
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:51	1
Magnesium	**140**		2.0		mg/L		10/23/23 06:31	10/25/23 18:51	1
Manganese	**0.15**		0.010		mg/L		10/23/23 06:31	10/25/23 18:51	1
Potassium	**13**		0.50		mg/L		10/23/23 06:31	10/25/23 18:51	1
Sodium	**1500**		5.0		mg/L		10/23/23 06:31	10/26/23 20:01	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.29**		0.10		mg/L		10/25/23 08:52	10/28/23 10:16	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 18:10	5
Arsenic	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:10	5
Barium	**0.0088**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:10	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:10	5

Client Sample ID: CH-CCR-MW74M-1023

Lab Sample ID: 550-209476-13
Matrix: Water
Date Collected: 10/18/23 10:00
Date Received: 10/20/23 15:01

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 18:10	5
Cobalt	**0.015**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:10	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:10	5
Molybdenum	**0.039**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:10	5
Selenium	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:10	5
Thallium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:10	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			11/01/23 14:04	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 14:04	1
Alkalinity as CaCO3 (SM 2320B)	**86**		6.0		mg/L			10/24/23 16:13	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 16:13	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**86**		6.0		mg/L			10/24/23 16:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:13	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:13	1
Total Dissolved Solids (SM 2540C)	**7400**		100		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	**7.9**	**H5**	1.7		SU			10/26/23 08:56	1
Temperature (SM 4500 H+ B)	**7.4**	**H5 T5**	0.1		Degrees C			10/26/23 08:56	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.98**		0.50		mg/L			11/08/23 04:33	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.99**		0.50		mg/L			11/08/23 04:33	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.98**		0.50		mg/L			11/08/23 04:33	1

Client Sample ID: CH-CCR-MW74M-1023

Lab Sample ID: 550-209476-14
Matrix: Water
Date Collected: 10/18/23 10:00
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:54	1
Manganese	**0.14**		0.010		mg/L		10/23/23 06:31	10/25/23 18:54	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.5		ug/L		10/23/23 09:48	10/24/23 18:12	5
Cobalt	**15**		2.5		ug/L		10/23/23 09:48	10/24/23 18:12	5

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-MW77A-1023

Date Collected: 10/17/23 14:54
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-15

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3600**		100		mg/L			10/22/23 09:22	50
Fluoride	ND	D2	0.80		mg/L			10/22/23 07:30	2
Sulfate	**4700**		100		mg/L			10/22/23 09:22	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.50**		0.40		mg/L			10/30/23 12:18	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 18:57	1
Boron	**0.72**		0.050		mg/L		10/23/23 06:31	10/25/23 18:57	1
Calcium	**550**		2.0		mg/L		10/23/23 06:31	10/25/23 18:57	1
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 18:57	1
Magnesium	**100**		2.0		mg/L		10/23/23 06:31	10/25/23 18:57	1
Manganese	**0.66**		0.010		mg/L		10/23/23 06:31	10/25/23 18:57	1
Potassium	**3.8**		0.50		mg/L		10/23/23 06:31	10/25/23 18:57	1
Sodium	**3300**		5.0		mg/L		10/23/23 06:31	10/26/23 20:04	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.58**		0.10		mg/L		10/25/23 08:52	10/28/23 10:18	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 18:14	5
Arsenic	**0.0029**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:14	5
Barium	**0.0079**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:14	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:14	5
Chromium	**0.0092**		0.0050		mg/L		10/23/23 09:48	10/24/23 18:14	5
Cobalt	**0.0046**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:14	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:14	5
Molybdenum	**0.0061**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:14	5
Selenium	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:14	5
Thallium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:14	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:36	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			11/01/23 14:05	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 14:10	1
Alkalinity as CaCO3 (SM 2320B)	**220**		6.0		mg/L			10/24/23 16:19	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 16:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**220**		6.0		mg/L			10/24/23 16:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:19	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:19	1

Client Sample ID: CH-CCR-MW77A-1023

Lab Sample ID: 550-209476-15
Matrix: Water
Date Collected: 10/17/23 14:54
Date Received: 10/20/23 15:01

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	11000		100		mg/L			10/23/23 15:06	1
pH (SM 4500 H+ B)	7.5	H5	1.7		SU			10/26/23 08:57	1
Temperature (SM 4500 H+ B)	7.6	H5 T5	0.1		Degrees C			10/26/23 08:57	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.3		0.50		mg/L			11/08/23 04:55	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.3		0.50		mg/L			11/08/23 04:55	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.3		0.50		mg/L			11/08/23 04:55	1

Client Sample ID: CH-CCR-MW77A-1023

Lab Sample ID: 550-209476-16
Matrix: Water
Date Collected: 10/17/23 14:54
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 19:00	1
Manganese	0.65		0.010		mg/L		10/23/23 06:31	10/25/23 19:00	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.0		2.5		ug/L		10/23/23 09:48	10/24/23 18:16	5
Cobalt	5.1		2.5		ug/L		10/23/23 09:48	10/24/23 18:16	5

Client Sample ID: CH-CCR-W301-1023

Lab Sample ID: 550-209476-17
Matrix: Water
Date Collected: 10/19/23 15:52
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5700	D2	100		mg/L			10/22/23 10:17	50
Fluoride	ND	D2	0.80		mg/L			10/22/23 09:49	2
Sulfate	3700	D2	100		mg/L			10/22/23 10:17	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 19:02	1
Boron	0.63		0.050		mg/L		10/23/23 06:31	10/25/23 19:02	1
Calcium	750		2.0		mg/L		10/23/23 06:31	10/25/23 19:02	1
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 19:02	1
Magnesium	180		2.0		mg/L		10/23/23 06:31	10/25/23 19:02	1
Manganese	1.5		0.010		mg/L		10/23/23 06:31	10/25/23 19:02	1
Potassium	6.2		0.50		mg/L		10/23/23 06:31	10/25/23 19:02	1
Sodium	4400		5.0		mg/L		10/23/23 06:31	10/26/23 20:06	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.67		0.10		mg/L		10/25/23 08:52	10/28/23 10:29	2

Client Sample ID: CH-CCR-W301-1023

Lab Sample ID: 550-209476-17
Matrix: Water
Date Collected: 10/19/23 15:52
Date Received: 10/20/23 15:01

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 18:18	5
Arsenic	**0.0037**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:18	5
Barium	**0.0072**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:18	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:18	5
Chromium	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 18:18	5
Cobalt	**0.023**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:18	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:18	5
Molybdenum	**0.0059**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:18	5
Selenium	**0.0034**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:18	5
Thallium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:18	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:38	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			11/01/23 14:07	1
Nitrate Nitrite as N (EPA 353.2)	**13**		0.20		mg/L			10/25/23 14:16	2
Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			10/24/23 16:27	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 16:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			10/24/23 16:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:27	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:27	1
Total Dissolved Solids (SM 2540C)	**14000**		200		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			10/26/23 08:59	1
Temperature (SM 4500 H+ B)	**7.9**	**H5 T5**	0.1		Degrees C			10/26/23 08:59	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.9**		0.50		mg/L			11/08/23 05:17	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.9**		0.50		mg/L			11/08/23 05:17	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.9**		0.50		mg/L			11/08/23 05:17	1

Client Sample ID: CH-CCR-W301-1023

Lab Sample ID: 550-209476-18
Matrix: Water
Date Collected: 10/19/23 15:52
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 19:05	1
Manganese	**1.4**		0.010		mg/L		10/23/23 06:31	10/25/23 19:05	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.5**		2.5		ug/L		10/23/23 09:48	10/24/23 18:20	5

Client Sample ID: CH-CCR-W301-1023

Lab Sample ID: 550-209476-18
Date Collected: 10/19/23 15:52
Matrix: Water
Date Received: 10/20/23 15:01

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**22**		2.5		ug/L		10/23/23 09:48	10/24/23 18:20	5

Client Sample ID: CH-CCR-W303-1023

Lab Sample ID: 550-209476-19
Date Collected: 10/19/23 13:35
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3300**	**D2**	100		mg/L			10/24/23 19:02	50
Fluoride	ND		0.80		mg/L			10/24/23 18:34	2
Sulfate	**3500**	**D2**	100		mg/L			10/24/23 19:02	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 19:08	1
Boron	**3.8**		0.050		mg/L		10/23/23 06:31	10/25/23 19:08	1
Calcium	**670**		2.0		mg/L		10/23/23 06:31	10/25/23 19:08	1
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 19:08	1
Magnesium	**220**		2.0		mg/L		10/23/23 06:31	10/25/23 19:08	1
Manganese	**0.66**		0.010		mg/L		10/23/23 06:31	10/25/23 19:08	1
Potassium	**4.4**		0.50		mg/L		10/23/23 06:31	10/25/23 19:08	1
Sodium	**2600**		5.0		mg/L		10/23/23 06:31	10/26/23 20:09	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.48**		0.10		mg/L		10/25/23 08:52	10/28/23 10:31	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:48	10/24/23 18:22	5
Arsenic	**0.0027**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:22	5
Barium	**0.0037**	**L3**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:22	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:22	5
Chromium	**0.014**		0.0050		mg/L		10/23/23 09:48	10/24/23 18:22	5
Cobalt	**0.020**		0.0025		mg/L		10/23/23 09:48	10/24/23 18:22	5
Lead	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:22	5
Molybdenum	**0.031**	**T5**	0.0025		mg/L		10/23/23 09:48	10/24/23 18:22	5
Selenium	ND		0.0025		mg/L		10/23/23 09:48	10/24/23 18:22	5
Thallium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 18:22	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			11/01/23 14:08	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 14:30	1
Alkalinity as CaCO3 (SM 2320B)	**190**		6.0		mg/L			10/24/23 16:34	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 16:34	1

Client Sample ID: CH-CCR-W303-1023

Lab Sample ID: 550-209476-19
Date Collected: 10/19/23 13:35
Matrix: Water
Date Received: 10/20/23 15:01

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**190**		6.0		mg/L			10/24/23 16:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:34	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:34	1
Total Dissolved Solids (SM 2540C)	**11000**		100		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			10/26/23 09:00	1
Temperature (SM 4500 H+ B)	**8.1**	**H5 T5**	0.1		Degrees C			10/26/23 09:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.6**		0.50		mg/L			11/08/23 05:40	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.6**		0.50		mg/L			11/08/23 05:40	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.6**		0.50		mg/L			11/08/23 05:40	1

Client Sample ID: CH-CCR-W303-1023

Lab Sample ID: 550-209476-20
Date Collected: 10/19/23 13:35
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 19:11	1
Manganese	**0.66**		0.010		mg/L		10/23/23 06:31	10/25/23 19:11	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.8**		2.5		ug/L		10/23/23 09:48	10/24/23 18:24	5
Cobalt	**20**		2.5		ug/L		10/23/23 09:48	10/24/23 18:24	5

Client Sample ID: CH-CCR-W306-1023

Lab Sample ID: 550-209476-21
Date Collected: 10/19/23 10:30
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2100**	**D2**	100		mg/L			10/24/23 16:09	50
Fluoride	**1.3**	**D2**	0.80		mg/L			10/24/23 15:50	2
Sulfate	**11000**	**D2**	400		mg/L			10/28/23 21:59	200

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.0**		0.40		mg/L			10/30/23 14:27	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.010**		0.0010		mg/L		10/23/23 06:49	10/24/23 19:07	1
Boron	**1.0**		0.050		mg/L		10/23/23 06:49	10/24/23 19:07	1
Calcium	**420**		2.0		mg/L		10/23/23 06:49	10/24/23 19:07	1
Iron	ND		0.10		mg/L		10/23/23 06:49	10/24/23 19:07	1

Client Sample ID: CH-CCR-W306-1023

Date Collected: 10/19/23 10:30
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-21

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**230**		2.0		mg/L		10/23/23 06:49	10/24/23 19:07	1
Manganese	**0.013**		0.010		mg/L		10/23/23 06:49	10/24/23 19:07	1
Potassium	**6.4**		0.50		mg/L		10/23/23 06:49	10/24/23 19:07	1
Sodium	**5800**		10		mg/L		10/23/23 06:49	10/26/23 20:23	20

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.93**		0.050		mg/L		10/25/23 08:52	10/27/23 20:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:30	10/24/23 16:42	5
Arsenic	**0.0065**		0.0025		mg/L		10/23/23 09:30	10/24/23 16:42	5
Barium	**0.012**	**L3**	0.0025		mg/L		10/23/23 09:30	10/24/23 16:42	5
Cadmium	ND		0.00050		mg/L		10/23/23 09:30	10/24/23 16:42	5
Chromium	ND		0.0050		mg/L		10/23/23 09:30	10/24/23 16:42	5
Cobalt	ND		0.0025		mg/L		10/23/23 09:30	10/24/23 16:42	5
Lead	ND		0.0025		mg/L		10/23/23 09:30	10/24/23 16:42	5
Molybdenum	**0.047**	**T5**	0.0025		mg/L		10/23/23 09:30	10/24/23 16:42	5
Selenium	ND		0.0025		mg/L		10/23/23 09:30	10/24/23 16:42	5
Thallium	ND		0.00050		mg/L		10/23/23 09:30	10/24/23 16:42	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:42	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			11/01/23 14:10	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 14:32	1
Alkalinity as CaCO3 (SM 2320B)	**120**		6.0		mg/L			10/24/23 16:41	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			10/24/23 16:41	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**120**		6.0		mg/L			10/24/23 16:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:41	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			10/24/23 16:41	1
Total Dissolved Solids (SM 2540C)	**18000**		200		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	**7.9**	**H5**	1.7		SU			10/26/23 09:03	1
Temperature (SM 4500 H+ B)	**8.6**	**H5 T5**	0.1		Degrees C			10/26/23 09:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.4**		0.50		mg/L			11/08/23 06:02	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.4**		0.50		mg/L			11/08/23 06:02	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.4**		0.50		mg/L			11/08/23 06:02	1

Client Sample ID: CH-CCR-W306-1023

Lab Sample ID: 550-209476-22

Date Collected: 10/19/23 10:30
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:49	10/24/23 19:10	1
Manganese	**0.010**		0.010		mg/L		10/23/23 06:49	10/24/23 19:10	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.5**		2.5		ug/L		10/23/23 09:30	10/24/23 16:44	5
Cobalt	ND		2.5		ug/L		10/23/23 09:30	10/24/23 16:44	5

Client Sample ID: CH-CCR-W314-1023

Lab Sample ID: 550-209476-23

Date Collected: 10/19/23 08:45
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2300**	**D2**	100		mg/L			10/24/23 17:48	50
Fluoride	**0.97**	**D2**	0.80		mg/L			10/24/23 16:27	2
Sulfate	**2600**	**D2**	100		mg/L			10/24/23 17:48	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:49	10/24/23 19:13	1
Boron	**1.5**		0.050		mg/L		10/23/23 06:49	10/24/23 19:13	1
Calcium	**670**		2.0		mg/L		10/23/23 06:49	10/24/23 19:13	1
Iron	ND		0.10		mg/L		10/23/23 06:49	10/24/23 19:13	1
Manganese	**0.24**		0.010		mg/L		10/23/23 06:49	10/24/23 19:13	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.36**		0.10		mg/L		10/25/23 08:52	10/28/23 10:39	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/23/23 09:30	10/24/23 16:46	5
Arsenic	**0.0025**		0.0025		mg/L		10/23/23 09:30	10/24/23 16:46	5
Barium	**0.0090**	**L3**	0.0025		mg/L		10/23/23 09:30	10/24/23 16:46	5
Cadmium	**0.00059**		0.00050		mg/L		10/23/23 09:30	10/24/23 16:46	5
Chromium	**0.039**		0.0050		mg/L		10/23/23 09:30	10/24/23 16:46	5
Cobalt	**0.045**		0.0025		mg/L		10/23/23 09:30	10/24/23 16:46	5
Lead	ND		0.0025		mg/L		10/23/23 09:30	10/24/23 16:46	5
Molybdenum	**0.019**	**T5**	0.0025		mg/L		10/23/23 09:30	10/24/23 16:46	5
Selenium	ND		0.0025		mg/L		10/23/23 09:30	10/24/23 16:46	5
Thallium	ND		0.00050		mg/L		10/23/23 09:30	10/24/23 16:46	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			10/30/23 13:45	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/25/23 14:34	1

Client Sample ID: CH-CCR-W314-1023

Lab Sample ID: 550-209476-23
Date Collected: 10/19/23 08:45
Matrix: Water
Date Received: 10/20/23 15:01

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	7600		100		mg/L			10/24/23 11:20	1
pH (SM 4500 H+ B)	7.5	H5	1.7		SU			10/26/23 09:05	1
Temperature (SM 4500 H+ B)	7.9	H5 T5	0.1		Degrees C			10/26/23 09:05	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.3		0.50		mg/L			11/08/23 06:19	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.3		0.50		mg/L			11/08/23 06:19	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.3		0.50		mg/L			11/08/23 06:19	1

Client Sample ID: CH-CCR-W314-1023

Lab Sample ID: 550-209476-24
Date Collected: 10/19/23 08:45
Matrix: Water
Date Received: 10/20/23 15:01

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/23/23 06:49	10/24/23 19:15	1
Manganese	0.26		0.010		mg/L		10/23/23 06:49	10/24/23 19:15	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.5		2.5		ug/L		10/23/23 09:30	10/24/23 16:48	5
Cobalt	47		2.5		ug/L		10/23/23 09:30	10/24/23 16:48	5

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-309841/2
Matrix: Water
Analysis Batch: 309841

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			10/21/23 14:43	1
Fluoride	ND		0.40		mg/L			10/21/23 14:43	1
Sulfate	ND		2.0		mg/L			10/21/23 14:43	1

Lab Sample ID: LCS 550-309841/5
Matrix: Water
Analysis Batch: 309841

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	20.1		mg/L		101	90 - 110		
Fluoride			4.00	4.22		mg/L		105	90 - 110		
Sulfate			20.0	20.1		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-309841/6
Matrix: Water
Analysis Batch: 309841

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	20.0		mg/L		100	90 - 110	0	20
Fluoride			4.00	4.21		mg/L		105	90 - 110	0	20
Sulfate			20.0	20.0		mg/L		100	90 - 110	0	20

Lab Sample ID: 550-209146-A-19 MS ^10
Matrix: Water
Analysis Batch: 309841

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1600	M3	200	1740	M3	mg/L		78	80 - 120		
Fluoride	ND		40.0	40.6		mg/L		102	80 - 120		
Sulfate	640	M1	200	832		mg/L		97	80 - 120		

Lab Sample ID: 550-209146-A-19 MSD ^10
Matrix: Water
Analysis Batch: 309841

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1600	M3	200	2040	E2 M3	mg/L		231	80 - 120	16	20
Fluoride	ND		40.0	40.4		mg/L		101	80 - 120	1	20
Sulfate	640	M1	200	979	M1	mg/L		170	80 - 120	16	20

Lab Sample ID: MB 550-309850/2
Matrix: Water
Analysis Batch: 309850

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			10/21/23 14:27	1
Fluoride	ND		0.40		mg/L			10/21/23 14:27	1
Sulfate	ND		2.0		mg/L			10/21/23 14:27	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-309850/5
Matrix: Water
Analysis Batch: 309850

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	21.0		mg/L		105	90 - 110		
Fluoride			4.00	4.31		mg/L		108	90 - 110		
Sulfate			20.0	21.1		mg/L		105	90 - 110		

Lab Sample ID: LCSD 550-309850/6
Matrix: Water
Analysis Batch: 309850

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	21.0		mg/L		105	90 - 110	0	20
Fluoride			4.00	4.35		mg/L		109	90 - 110	1	20
Sulfate			20.0	21.1		mg/L		105	90 - 110	0	20

Lab Sample ID: 550-209102-A-1 MS ^10
Matrix: Water
Analysis Batch: 309850

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	290	D2	200	500	D2	mg/L		103	80 - 120		
Fluoride	ND		40.0	43.1	D2	mg/L		105	80 - 120		
Sulfate	480	D2	200	670	D2	mg/L		96	80 - 120		

Lab Sample ID: 550-209102-A-1 MSD ^10
Matrix: Water
Analysis Batch: 309850

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	290	D2	200	499	D2	mg/L		103	80 - 120	0	20
Fluoride	ND		40.0	43.0	D2	mg/L		105	80 - 120	0	20
Sulfate	480	D2	200	670	D2	mg/L		95	80 - 120	0	20

Lab Sample ID: MB 550-309930/2
Matrix: Water
Analysis Batch: 309930

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			10/24/23 12:02	1
Fluoride	ND		0.40		mg/L			10/24/23 12:02	1
Sulfate	ND		2.0		mg/L			10/24/23 12:02	1

Lab Sample ID: LCS 550-309930/5
Matrix: Water
Analysis Batch: 309930

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	20.8		mg/L		104	90 - 110		
Fluoride			4.00	4.16		mg/L		104	90 - 110		
Sulfate			20.0	20.8		mg/L		104	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-309930/6
Matrix: Water
Analysis Batch: 309930

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	20.7		mg/L		104	90 - 110	0	20
Fluoride			4.00	4.19		mg/L		105	90 - 110	1	20
Sulfate			20.0	20.8		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-209520-E-1 MS
Matrix: Water
Analysis Batch: 309930

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	96	M3	20.0	109	E2 M3	mg/L		67	80 - 120
Fluoride	1.1		4.00	5.07		mg/L		98	80 - 120
Sulfate	430	E2 M3	20.0	426	E2 M3	mg/L		-12	80 - 120

Lab Sample ID: 550-209520-E-1 MSD
Matrix: Water
Analysis Batch: 309930

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	96	M3	20.0	110	E2 M3	mg/L		70	80 - 120	1	20
Fluoride	1.1		4.00	4.78		mg/L		91	80 - 120	6	20
Sulfate	430	E2 M3	20.0	426	E2 M3	mg/L		-12	80 - 120	0	20

Lab Sample ID: MB 550-309960/2
Matrix: Water
Analysis Batch: 309960

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			10/24/23 12:15	1
Fluoride	ND		0.40		mg/L			10/24/23 12:15	1
Sulfate	ND		2.0		mg/L			10/24/23 12:15	1

Lab Sample ID: LCS 550-309960/5
Matrix: Water
Analysis Batch: 309960

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			20.0	19.7		mg/L		98	90 - 110
Fluoride			4.00	4.13		mg/L		103	90 - 110
Sulfate			20.0	19.2		mg/L		96	90 - 110

Lab Sample ID: LCSD 550-309960/6
Matrix: Water
Analysis Batch: 309960

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.4		mg/L		97	90 - 110	1	20
Fluoride			4.00	4.06		mg/L		102	90 - 110	2	20
Sulfate			20.0	19.0		mg/L		95	90 - 110	1	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-209537-B-1 MS
Matrix: Water
Analysis Batch: 309960

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	200	M3	20.0	295	E2 M3	mg/L		477	80 - 120
Fluoride	0.43		4.00	4.17		mg/L		93	80 - 120
Sulfate	81	M3	20.0	208	E2 M3	mg/L		631	80 - 120

Lab Sample ID: 550-209537-B-1 MSD
Matrix: Water
Analysis Batch: 309960

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	200	M3	20.0	305	E2 M3	mg/L		531	80 - 120	4	20
Fluoride	0.43		4.00	4.20		mg/L		94	80 - 120	1	20
Sulfate	81	M3	20.0	223	E2 M3	mg/L		707	80 - 120	7	20

Lab Sample ID: MB 550-310131/2
Matrix: Water
Analysis Batch: 310131

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0	mg/L			10/27/23 12:54	1
Fluoride	ND		0.40	mg/L			10/27/23 12:54	1
Sulfate	ND		2.0	mg/L			10/27/23 12:54	1

Lab Sample ID: LCS 550-310131/5
Matrix: Water
Analysis Batch: 310131

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	19.4		mg/L		97	90 - 110
Fluoride	4.00	4.11		mg/L		103	90 - 110
Sulfate	20.0	19.7		mg/L		98	90 - 110

Lab Sample ID: LCSD 550-310131/6
Matrix: Water
Analysis Batch: 310131

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	20.0	19.4		mg/L		97	90 - 110	0	20
Fluoride	4.00	4.09		mg/L		102	90 - 110	0	20
Sulfate	20.0	19.7		mg/L		98	90 - 110	0	20

Lab Sample ID: 550-209662-A-2 MS
Matrix: Water
Analysis Batch: 310131

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	210	E2 M3	20.0	218	E2 M3	mg/L		44	80 - 120
Fluoride	3.5		4.00	7.43		mg/L		98	80 - 120
Sulfate	280	E2 M3	20.0	283	E2 M3	mg/L		32	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-209662-A-2 MSD
Matrix: Water
Analysis Batch: 310131

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	210	E2 M3	20.0	218	E2 M3	mg/L		45	80 - 120	0	20
Fluoride	3.5		4.00	7.56		mg/L		101	80 - 120	2	20
Sulfate	280	E2 M3	20.0	283	E2 M3	mg/L		34	80 - 120	0	20

Lab Sample ID: 550-209060-O-1 DU ^10
Matrix: Water
Analysis Batch: 310132

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	380		380		mg/L		0.7	20
Fluoride	ND		ND		mg/L		3	20
Sulfate	ND		ND		mg/L		4	20

Lab Sample ID: MB 550-310138/2
Matrix: Water
Analysis Batch: 310138

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0	mg/L			10/28/23 15:51	1
Fluoride	ND		0.40	mg/L			10/28/23 15:51	1
Sulfate	ND		2.0	mg/L			10/28/23 15:51	1

Lab Sample ID: LCS 550-310138/5
Matrix: Water
Analysis Batch: 310138

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	19.6		mg/L		98	90 - 110
Fluoride	4.00	4.16		mg/L		104	90 - 110
Sulfate	20.0	19.8		mg/L		99	90 - 110

Lab Sample ID: LCSD 550-310138/6
Matrix: Water
Analysis Batch: 310138

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	20.0	19.6		mg/L		98	90 - 110	0	20
Fluoride	4.00	4.16		mg/L		104	90 - 110	0	20
Sulfate	20.0	19.9		mg/L		99	90 - 110	0	20

Lab Sample ID: 550-209214-E-3 MS ^5
Matrix: Water
Analysis Batch: 310138

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5300	E2 M3	100	4070	E2 M3	mg/L		-1210	80 - 120
Fluoride	43		20.0	60.0		mg/L		85	80 - 120
Sulfate	8100	E2 M3	100	6210	E2 M3	mg/L		-1887	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-209214-E-3 MSD ^5
Matrix: Water
Analysis Batch: 310138

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5300	E2 M3	100	4060	E2 M3	mg/L		-1222	80 - 120	0	20
Fluoride	43		20.0	59.9		mg/L		85	80 - 120	0	20
Sulfate	8100	E2 M3	100	6200	E2 M3	mg/L		-1900	80 - 120	0	20

Lab Sample ID: MB 550-310443/2
Matrix: Water
Analysis Batch: 310443

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			11/02/23 09:54	1
Fluoride	ND		0.40		mg/L			11/02/23 09:54	1
Sulfate	ND		2.0		mg/L			11/02/23 09:54	1

Lab Sample ID: LCS 550-310443/5
Matrix: Water
Analysis Batch: 310443

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	20.8		mg/L		104	90 - 110		
Fluoride			4.00	4.11		mg/L		103	90 - 110		
Sulfate			20.0	20.9		mg/L		104	90 - 110		

Lab Sample ID: LCSD 550-310443/6
Matrix: Water
Analysis Batch: 310443

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	20.8		mg/L		104	90 - 110	0	20
Fluoride			4.00	4.07		mg/L		102	90 - 110	1	20
Sulfate			20.0	20.9		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-209471-A-4 MS ^2
Matrix: Water
Analysis Batch: 310443

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1800	E2 M3	40.0	1770	E2 M3	mg/L		9	80 - 120		
Fluoride	1.1		8.00	8.87		mg/L		98	80 - 120		
Sulfate	1300	E2 M3	40.0	1340	E2 M3	mg/L		29	80 - 120		

Lab Sample ID: 550-209471-A-4 MSD ^2
Matrix: Water
Analysis Batch: 310443

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1800	E2 M3	40.0	1760	E2 M3	mg/L		-5	80 - 120	0	20
Fluoride	1.1		8.00	8.72		mg/L		96	80 - 120	2	20
Sulfate	1300	E2 M3	40.0	1340	E2 M3	mg/L		11	80 - 120	1	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-209876-D-1 MS
Matrix: Water
Analysis Batch: 310443

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	360	E2 M3	20.0	357	E2 M3	mg/L		-7	80 - 120		
Fluoride	ND		4.00	4.27		mg/L		100	80 - 120		
Sulfate	320	E2 M3	20.0	322	E2 M3	mg/L		12	80 - 120		

Lab Sample ID: 550-209876-D-1 MSD
Matrix: Water
Analysis Batch: 310443

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	360	E2 M3	20.0	357	E2 M3	mg/L		-6	80 - 120	0	20
Fluoride	ND		4.00	4.33		mg/L		101	80 - 120	1	20
Sulfate	320	E2 M3	20.0	322	E2 M3	mg/L		12	80 - 120	0	20

Lab Sample ID: 550-209471-A-4 DU ^2
Matrix: Water
Analysis Batch: 310443

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	1800	E2 M3	1750	E2	mg/L		0.9	20
Fluoride	1.1		1.04		mg/L		1	20
Sulfate	1300	E2 M3	1320	E2	mg/L		1	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 550-310132/2
Matrix: Water
Analysis Batch: 310132

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			10/27/23 12:38	1

Lab Sample ID: LCS 550-310132/5
Matrix: Water
Analysis Batch: 310132

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			4.00	4.19		mg/L		105	80 - 120		

Lab Sample ID: LCSD 550-310132/6
Matrix: Water
Analysis Batch: 310132

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride			4.00	4.20		mg/L		105	80 - 120	0	20

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-209060-G-2 MS
Matrix: Water
Analysis Batch: 310132

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	ND		4.00	4.43		mg/L		106	80 - 120		

Lab Sample ID: 550-209060-G-2 MSD
Matrix: Water
Analysis Batch: 310132

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND		4.00	4.44		mg/L		106	80 - 120	0	20

Lab Sample ID: MB 550-310213/2
Matrix: Water
Analysis Batch: 310213

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			10/30/23 10:46	1

Lab Sample ID: LCS 550-310213/5
Matrix: Water
Analysis Batch: 310213

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			4.00	4.23		mg/L		106	80 - 120		

Lab Sample ID: LCSD 550-310213/6
Matrix: Water
Analysis Batch: 310213

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride			4.00	4.23		mg/L		106	80 - 120	0	20

Lab Sample ID: 550-209476-15 MS
Matrix: Water
Analysis Batch: 310213

Client Sample ID: CH-CCR-MW77A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	0.50		4.00	4.12		mg/L		90	80 - 120		

Lab Sample ID: 550-209476-15 MSD
Matrix: Water
Analysis Batch: 310213

Client Sample ID: CH-CCR-MW77A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.50		4.00	4.23		mg/L		93	80 - 120	3	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-309746/1-A
Matrix: Water
Analysis Batch: 309988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309746

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:31	10/25/23 17:57	1
Boron	ND		0.050		mg/L		10/23/23 06:31	10/25/23 17:57	1
Calcium	ND		2.0		mg/L		10/23/23 06:31	10/25/23 17:57	1
Iron	ND		0.10		mg/L		10/23/23 06:31	10/25/23 17:57	1
Magnesium	ND		2.0		mg/L		10/23/23 06:31	10/25/23 17:57	1
Manganese	ND		0.010		mg/L		10/23/23 06:31	10/25/23 17:57	1
Potassium	ND		0.50		mg/L		10/23/23 06:31	10/25/23 17:57	1
Sodium	ND		0.50		mg/L		10/23/23 06:31	10/25/23 17:57	1

Lab Sample ID: LCS 550-309746/2-A
Matrix: Water
Analysis Batch: 309988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309746

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	0.966		mg/L		97	85 - 115		
Boron			1.00	1.03		mg/L		103	85 - 115		
Calcium			21.0	20.7		mg/L		98	85 - 115		
Iron			1.00	0.820		mg/L		82	85 - 115		
Magnesium			21.0	19.8		mg/L		94	85 - 115		
Manganese			1.00	0.946		mg/L		95	85 - 115		
Potassium			20.0	19.2		mg/L		96	85 - 115		
Sodium			20.0	18.5		mg/L		92	85 - 115		

Lab Sample ID: LCSD 550-309746/3-A
Matrix: Water
Analysis Batch: 309988

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309746

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium			1.00	0.966		mg/L		97	85 - 115	0	20
Boron			1.00	1.02		mg/L		102	85 - 115	1	20
Calcium			21.0	20.5		mg/L		98	85 - 115	1	20
Iron			1.00	0.823		mg/L		82	85 - 115	0	20
Magnesium			21.0	20.0		mg/L		95	85 - 115	1	20
Manganese			1.00	0.932		mg/L		93	85 - 115	2	20
Potassium			20.0	19.2		mg/L		96	85 - 115	0	20
Sodium			20.0	18.6		mg/L		93	85 - 115	1	20

Lab Sample ID: 550-209476-1 MS
Matrix: Water
Analysis Batch: 309988

Client Sample ID: CH-CCR-M53A-1023
Prep Type: Total/NA
Prep Batch: 309746

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium	ND		1.00	1.01		mg/L		101	70 - 130		
Boron	3.8		1.00	4.75		mg/L		99	70 - 130		
Calcium	580	M3	21.0	574	M3	mg/L		-20	70 - 130		
Iron	ND		1.00	0.977		mg/L		98	70 - 130		
Magnesium	200		21.0	216	M3	mg/L		75	70 - 130		
Manganese	5.1		1.00	6.13	M3	mg/L		104	70 - 130		
Potassium	12		20.0	34.5		mg/L		110	70 - 130		

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

Lab Sample ID: 550-209476-1 MSD — **Client Sample ID: CH-CCR-M53A-1023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309988 — **Prep Batch: 309746**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	ND		1.00	1.03		mg/L		103	70 - 130	2	20
Boron	3.8		1.00	4.76		mg/L		101	70 - 130	0	20
Calcium	580	M3	21.0	585	M3	mg/L		34	70 - 130	2	20
Iron	ND		1.00	0.989		mg/L		99	70 - 130	1	20
Magnesium	200		21.0	218	M3	mg/L		82	70 - 130	1	20
Manganese	5.1		1.00	6.16	M3	mg/L		108	70 - 130	1	20
Potassium	12		20.0	35.2		mg/L		114	70 - 130	2	20

Lab Sample ID: MB 550-309748/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309919 — **Prep Batch: 309748**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/23/23 06:49	10/24/23 18:36	1
Boron	ND		0.050		mg/L		10/23/23 06:49	10/24/23 18:36	1
Calcium	ND		2.0		mg/L		10/23/23 06:49	10/24/23 18:36	1
Iron	ND		0.10		mg/L		10/23/23 06:49	10/24/23 18:36	1
Magnesium	ND		2.0		mg/L		10/23/23 06:49	10/24/23 18:36	1
Manganese	ND		0.010		mg/L		10/23/23 06:49	10/24/23 18:36	1
Potassium	ND		0.50		mg/L		10/23/23 06:49	10/24/23 18:36	1
Sodium	ND	V1	0.50		mg/L		10/23/23 06:49	10/24/23 18:36	1

Lab Sample ID: LCS 550-309748/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309919 — **Prep Batch: 309748**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	0.983		mg/L		98	85 - 115		
Boron			1.00	1.05		mg/L		105	85 - 115		
Calcium			21.0	21.0		mg/L		100	85 - 115		
Iron			1.00	0.908		mg/L		91	85 - 115		
Magnesium			21.0	20.8		mg/L		99	85 - 115		
Manganese			1.00	0.980		mg/L		98	85 - 115		
Potassium			20.0	18.8		mg/L		94	85 - 115		
Sodium			20.0	20.3	V1	mg/L		102	85 - 115		

Lab Sample ID: LCSD 550-309748/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309919 — **Prep Batch: 309748**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium			1.00	0.964		mg/L		96	85 - 115	2	20
Boron			1.00	1.04		mg/L		104	85 - 115	1	20
Calcium			21.0	20.7		mg/L		99	85 - 115	2	20
Iron			1.00	0.897		mg/L		90	85 - 115	1	20
Magnesium			21.0	20.5		mg/L		98	85 - 115	1	20
Manganese			1.00	0.964		mg/L		96	85 - 115	2	20
Potassium			20.0	18.6		mg/L		93	85 - 115	1	20
Sodium			20.0	20.1	V1	mg/L		101	85 - 115	1	20

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

Lab Sample ID: 550-209344-D-1-B MS
Matrix: Water
Analysis Batch: 309919

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 309748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	ND		1.00	0.993		mg/L		99	70 - 130
Boron	ND		1.00	1.10		mg/L		107	70 - 130
Calcium	5.2		21.0	26.4		mg/L		101	70 - 130
Iron	1.7	M1	1.00	2.93		mg/L		124	70 - 130
Magnesium	6.1		21.0	27.1		mg/L		100	70 - 130
Manganese	0.013		1.00	0.987		mg/L		97	70 - 130
Potassium	1.8		20.0	21.7		mg/L		99	70 - 130
Sodium	220	V1	20.0	235	M3 V1	mg/L		73	70 - 130

Lab Sample ID: 550-209344-D-1-C MSD
Matrix: Water
Analysis Batch: 309919

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 309748

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	ND		1.00	1.02		mg/L		102	70 - 130	2	20
Boron	ND		1.00	1.10		mg/L		108	70 - 130	0	20
Calcium	5.2		21.0	27.1		mg/L		104	70 - 130	3	20
Iron	1.7	M1	1.00	3.02	M1	mg/L		132	70 - 130	3	20
Magnesium	6.1		21.0	27.8		mg/L		103	70 - 130	2	20
Manganese	0.013		1.00	0.987		mg/L		97	70 - 130	0	20
Potassium	1.8		20.0	22.1		mg/L		102	70 - 130	2	20
Sodium	220	V1	20.0	240	M3 V1	mg/L		99	70 - 130	2	20

Lab Sample ID: MB 570-377008/1-A
Matrix: Water
Analysis Batch: 379064

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 377008

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		0.050		mg/L		10/25/23 08:52	10/31/23 18:00	1

Lab Sample ID: LCS 570-377008/2-A
Matrix: Water
Analysis Batch: 379064

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 377008

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium			0.500	0.522		mg/L		104	85 - 115

Lab Sample ID: LCSD 570-377008/3-A
Matrix: Water
Analysis Batch: 379064

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 377008

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium			0.500	0.522		mg/L		104	85 - 115	0	20

Lab Sample ID: 550-209476-1 MS
Matrix: Water
Analysis Batch: 378187

Client Sample ID: CH-CCR-M53A-1023
Prep Type: Total Recoverable
Prep Batch: 377008

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.28		0.500	0.793		mg/L		102	80 - 120

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

Lab Sample ID: 550-209476-1 MS
Matrix: Water
Analysis Batch: 378187

Client Sample ID: CH-CCR-M53A-1023
Prep Type: Total Recoverable
Prep Batch: 377008

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.28		0.500	0.793		mg/L		102	80 - 120

Lab Sample ID: 550-209476-1 MSD
Matrix: Water
Analysis Batch: 378187

Client Sample ID: CH-CCR-M53A-1023
Prep Type: Total Recoverable
Prep Batch: 377008

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	0.28		0.500	0.830		mg/L		110	80 - 120	5	20
Lithium	0.28		0.500	0.830		mg/L		110	80 - 120	5	20

Lab Sample ID: 550-209476-19 MS
Matrix: Water
Analysis Batch: 378187

Client Sample ID: CH-CCR-W303-1023
Prep Type: Total Recoverable
Prep Batch: 377008

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.48		0.500	1.05		mg/L		113	80 - 120

Lab Sample ID: 550-209476-19 MSD
Matrix: Water
Analysis Batch: 378187

Client Sample ID: CH-CCR-W303-1023
Prep Type: Total Recoverable
Prep Batch: 377008

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	0.48		0.500	1.04		mg/L		113	80 - 120	0	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-309752/1-A
Matrix: Water
Analysis Batch: 309934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309752

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/23/23 09:30	10/24/23 15:56	1
Arsenic	ND		0.00050		mg/L		10/23/23 09:30	10/24/23 15:56	1
Barium	ND		0.00050		mg/L		10/23/23 09:30	10/24/23 15:56	1
Cadmium	ND		0.00010		mg/L		10/23/23 09:30	10/24/23 15:56	1
Chromium	ND		0.0010		mg/L		10/23/23 09:30	10/24/23 15:56	1
Cobalt	ND		0.00050		mg/L		10/23/23 09:30	10/24/23 15:56	1
Lead	ND		0.00050		mg/L		10/23/23 09:30	10/24/23 15:56	1
Molybdenum	ND		0.00050		mg/L		10/23/23 09:30	10/24/23 15:56	1
Selenium	ND		0.00050		mg/L		10/23/23 09:30	10/24/23 15:56	1
Thallium	ND		0.00010		mg/L		10/23/23 09:30	10/24/23 15:56	1

Lab Sample ID: LCS 550-309752/2-A
Matrix: Water
Analysis Batch: 309934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.0994		mg/L		99	85 - 115
Arsenic	0.100	0.0970		mg/L		97	85 - 115
Barium	0.100	0.116	L3	mg/L		116	85 - 115

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

Lab Sample ID: LCS 550-309752/2-A
Matrix: Water
Analysis Batch: 309934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309752

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cadmium			0.100	0.0982		mg/L		98	85 - 115		
Chromium			0.100	0.101		mg/L		101	85 - 115		
Cobalt			0.100	0.104		mg/L		104	85 - 115		
Lead			0.100	0.103		mg/L		103	85 - 115		
Molybdenum			0.100	0.0969		mg/L		97	85 - 115		
Selenium			0.100	0.0954		mg/L		95	85 - 115		
Thallium			0.100	0.106		mg/L		106	85 - 115		

Lab Sample ID: LCSD 550-309752/3-A
Matrix: Water
Analysis Batch: 309934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309752

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.0999		mg/L		100	85 - 115	1	20
Arsenic			0.100	0.0981		mg/L		98	85 - 115	1	20
Barium			0.100	0.117	L3	mg/L		117	85 - 115	1	20
Cadmium			0.100	0.0989		mg/L		99	85 - 115	1	20
Chromium			0.100	0.102		mg/L		102	85 - 115	1	20
Cobalt			0.100	0.105		mg/L		105	85 - 115	1	20
Lead			0.100	0.0998		mg/L		100	85 - 115	3	20
Molybdenum			0.100	0.0988		mg/L		99	85 - 115	2	20
Selenium			0.100	0.0964		mg/L		96	85 - 115	1	20
Thallium			0.100	0.101		mg/L		101	85 - 115	4	20

Lab Sample ID: 550-209464-A-1-A MS
Matrix: Water
Analysis Batch: 309934

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 309752

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND		0.100	0.104		mg/L		104	70 - 130		
Arsenic	0.0040		0.100	0.103		mg/L		99	70 - 130		
Barium	0.0088	L3	0.100	0.128		mg/L		119	70 - 130		
Cadmium	ND		0.100	0.0989		mg/L		99	70 - 130		
Chromium	0.0072		0.100	0.105		mg/L		98	70 - 130		
Cobalt	ND		0.100	0.100		mg/L		100	70 - 130		
Lead	ND		0.100	0.0960		mg/L		96	70 - 130		
Molybdenum	0.0059		0.100	0.109		mg/L		103	70 - 130		
Selenium	0.00058		0.100	0.0979		mg/L		97	70 - 130		
Thallium	ND		0.100	0.0984		mg/L		98	70 - 130		

Lab Sample ID: 550-209464-A-1-B MSD
Matrix: Water
Analysis Batch: 309934

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 309752

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.103		mg/L		103	70 - 130	1	20
Arsenic	0.0040		0.100	0.101		mg/L		97	70 - 130	2	20
Barium	0.0088	L3	0.100	0.126		mg/L		117	70 - 130	2	20
Cadmium	ND		0.100	0.0973		mg/L		97	70 - 130	2	20

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

Lab Sample ID: 550-209464-A-1-B MSD
Matrix: Water
Analysis Batch: 309934

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 309752

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium	0.0072		0.100	0.103		mg/L		96	70 - 130	1	20
Cobalt	ND		0.100	0.0991		mg/L		99	70 - 130	1	20
Lead	ND		0.100	0.0986		mg/L		99	70 - 130	3	20
Molybdenum	0.0059		0.100	0.108		mg/L		102	70 - 130	1	20
Selenium	0.00058		0.100	0.0946		mg/L		94	70 - 130	3	20
Thallium	ND		0.100	0.0968		mg/L		97	70 - 130	2	20

Lab Sample ID: MB 550-309755/1-A
Matrix: Water
Analysis Batch: 309935

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309755

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/23/23 09:48	10/24/23 17:14	1
Arsenic	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:14	1
Barium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:14	1
Cadmium	ND		0.00010		mg/L		10/23/23 09:48	10/24/23 17:14	1
Chromium	ND		0.0010		mg/L		10/23/23 09:48	10/24/23 17:14	1
Cobalt	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:14	1
Lead	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:14	1
Molybdenum	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:14	1
Selenium	ND		0.00050		mg/L		10/23/23 09:48	10/24/23 17:14	1
Thallium	ND		0.00010		mg/L		10/23/23 09:48	10/24/23 17:14	1

Lab Sample ID: LCS 550-309755/2-A
Matrix: Water
Analysis Batch: 309935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309755

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.0998		mg/L		100	85 - 115		
Arsenic			0.100	0.0956		mg/L		96	85 - 115		
Barium			0.100	0.116	L3	mg/L		116	85 - 115		
Cadmium			0.100	0.0982		mg/L		98	85 - 115		
Chromium			0.100	0.0993		mg/L		99	85 - 115		
Cobalt			0.100	0.104		mg/L		104	85 - 115		
Lead			0.100	0.101		mg/L		101	85 - 115		
Molybdenum			0.100	0.0969		mg/L		97	85 - 115		
Selenium			0.100	0.0929		mg/L		93	85 - 115		
Thallium			0.100	0.0987		mg/L		99	85 - 115		

Lab Sample ID: LCSD 550-309755/3-A
Matrix: Water
Analysis Batch: 309935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309755

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.0999		mg/L		100	85 - 115	0	20
Arsenic			0.100	0.0953		mg/L		95	85 - 115	0	20
Barium			0.100	0.116	L3	mg/L		116	85 - 115	0	20
Cadmium			0.100	0.0973		mg/L		97	85 - 115	1	20
Chromium			0.100	0.0997		mg/L		100	85 - 115	0	20

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

Lab Sample ID: LCSD 550-309755/3-A
Matrix: Water
Analysis Batch: 309935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309755

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt			0.100	0.104		mg/L		104	85 - 115	0	20
Lead			0.100	0.0989		mg/L		99	85 - 115	2	20
Molybdenum			0.100	0.0972		mg/L		97	85 - 115	0	20
Selenium			0.100	0.0934		mg/L		93	85 - 115	0	20
Thallium			0.100	0.100		mg/L		100	85 - 115	1	20

Lab Sample ID: 550-209476-3 MS
Matrix: Water
Analysis Batch: 309935

Client Sample ID: CH-CCR-MW69A-1023
Prep Type: Total/NA
Prep Batch: 309755

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND		0.100	0.0930		mg/L		93	70 - 130		
Arsenic	0.0025		0.100	0.0944		mg/L		92	70 - 130		
Barium	0.019	L3	0.100	0.124		mg/L		106	70 - 130		
Cadmium	ND		0.100	0.0860		mg/L		86	70 - 130		
Chromium	ND		0.100	0.0957		mg/L		92	70 - 130		
Cobalt	0.015		0.100	0.108		mg/L		93	70 - 130		
Lead	ND		0.100	0.0889		mg/L		89	70 - 130		
Molybdenum	0.029	T5	0.100	0.119		mg/L		90	70 - 130		
Selenium	ND		0.100	0.0851		mg/L		85	70 - 130		
Thallium	ND		0.100	0.0869		mg/L		87	70 - 130		

Lab Sample ID: 550-209476-3 MSD
Matrix: Water
Analysis Batch: 309935

Client Sample ID: CH-CCR-MW69A-1023
Prep Type: Total/NA
Prep Batch: 309755

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.0968		mg/L		97	70 - 130	4	20
Arsenic	0.0025		0.100	0.0950		mg/L		92	70 - 130	1	20
Barium	0.019	L3	0.100	0.131		mg/L		112	70 - 130	5	20
Cadmium	ND		0.100	0.0893		mg/L		89	70 - 130	4	20
Chromium	ND		0.100	0.0955		mg/L		91	70 - 130	0	20
Cobalt	0.015		0.100	0.107		mg/L		92	70 - 130	1	20
Lead	ND		0.100	0.0909		mg/L		91	70 - 130	2	20
Molybdenum	0.029	T5	0.100	0.122		mg/L		93	70 - 130	3	20
Selenium	ND		0.100	0.0898		mg/L		90	70 - 130	5	20
Thallium	ND		0.100	0.0889		mg/L		89	70 - 130	2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-309852/1-A
Matrix: Water
Analysis Batch: 309876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309852

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/24/23 13:22	10/24/23 15:53	1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 550-309852/2-A
Matrix: Water
Analysis Batch: 309876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309852

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00469		mg/L		94	85 - 115		

Lab Sample ID: LCSD 550-309852/3-A
Matrix: Water
Analysis Batch: 309876

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309852

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00478		mg/L		96	85 - 115	2	20

Lab Sample ID: 550-209436-A-1-C MSD
Matrix: Water
Analysis Batch: 309876

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 309852

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00521		mg/L		104	70 - 130	4	20

Lab Sample ID: 550-209476-13 MS
Matrix: Water
Analysis Batch: 309876

Client Sample ID: CH-CCR-MW74M-1023
Prep Type: Total/NA
Prep Batch: 309852

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00570		mg/L		114	70 - 130		

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-310263/110
Matrix: Water
Analysis Batch: 310263

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			10/30/23 13:14	1

Lab Sample ID: MB 550-310263/159
Matrix: Water
Analysis Batch: 310263

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			10/30/23 14:33	1

Lab Sample ID: LCS 550-310263/111
Matrix: Water
Analysis Batch: 310263

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.990		mg/L		99	90 - 110		

Method: 350.1 - Nitrogen, Ammonia (Low Level) (Continued)

Lab Sample ID: LCS 550-310263/160
Matrix: Water
Analysis Batch: 310263

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.916		mg/L		92	90 - 110		

Lab Sample ID: LCSD 550-310263/112
Matrix: Water
Analysis Batch: 310263

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	1.02		mg/L		102	90 - 110	3	20

Lab Sample ID: LCSD 550-310263/161
Matrix: Water
Analysis Batch: 310263

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.936		mg/L		94	90 - 110	2	20

Lab Sample ID: 550-209471-B-1 MS
Matrix: Water
Analysis Batch: 310263

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.37		1.00	1.40		mg/L		103	90 - 110		

Lab Sample ID: 550-209471-B-1 MSD
Matrix: Water
Analysis Batch: 310263

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.37		1.00	1.36		mg/L		99	90 - 110	3	20

Lab Sample ID: 550-209476-23 MS
Matrix: Water
Analysis Batch: 310263

Client Sample ID: CH-CCR-W314-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	ND		1.00	1.00		mg/L		100	90 - 110		

Lab Sample ID: 550-209476-23 MSD
Matrix: Water
Analysis Batch: 310263

Client Sample ID: CH-CCR-W314-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	ND		1.00	0.932		mg/L		93	90 - 110	7	20

Lab Sample ID: MB 550-310375/60
Matrix: Water
Analysis Batch: 310375

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			11/01/23 13:22	1

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: LCS 550-310375/61
Matrix: Water
Analysis Batch: 310375

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.980		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-310375/62
Matrix: Water
Analysis Batch: 310375

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.993		mg/L		99	90 - 110	1	20

Lab Sample ID: 550-209476-3 MS
Matrix: Water
Analysis Batch: 310375

Client Sample ID: CH-CCR-MW69A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.055		1.00	1.11		mg/L		106	90 - 110		

Lab Sample ID: 550-209476-3 MSD
Matrix: Water
Analysis Batch: 310375

Client Sample ID: CH-CCR-MW69A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.055		1.00	1.03		mg/L		97	90 - 110	8	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-631180/22
Matrix: Water
Analysis Batch: 631180

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			10/25/23 12:52	1

Lab Sample ID: MB 280-631180/60
Matrix: Water
Analysis Batch: 631180

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			10/25/23 14:08	1

Lab Sample ID: LCS 280-631180/21
Matrix: Water
Analysis Batch: 631180

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			5.00	5.01		mg/L		100	90 - 110		

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 280-631180/59
Matrix: Water
Analysis Batch: 631180

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			5.00	4.98		mg/L		100	90 - 110		

Lab Sample ID: 550-209476-1 MS
Matrix: Water
Analysis Batch: 631180

Client Sample ID: CH-CCR-M53A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	ND		4.00	3.97		mg/L		99	90 - 110		

Lab Sample ID: 550-209476-1 MSD
Matrix: Water
Analysis Batch: 631180

Client Sample ID: CH-CCR-M53A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		4.00	3.98		mg/L		99	90 - 110	0	10

Lab Sample ID: 550-209476-15 MS
Matrix: Water
Analysis Batch: 631180

Client Sample ID: CH-CCR-MW77A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	ND		4.00	4.02		mg/L		99	90 - 110		

Lab Sample ID: 550-209476-15 MSD
Matrix: Water
Analysis Batch: 631180

Client Sample ID: CH-CCR-MW77A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		4.00	3.97		mg/L		98	90 - 110	1	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-309886/4
Matrix: Water
Analysis Batch: 309886

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			10/24/23 14:15	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			10/24/23 14:15	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			10/24/23 14:15	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			10/24/23 14:15	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			10/24/23 14:15	1

Lab Sample ID: LCS 550-309886/3
Matrix: Water
Analysis Batch: 309886

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	247		mg/L		99	90 - 110		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-309886/10
Matrix: Water
Analysis Batch: 309886

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	242		mg/L		97	90 - 110	2	20

Lab Sample ID: 550-209476-3 DU
Matrix: Water
Analysis Batch: 309886

Client Sample ID: CH-CCR-MW69A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	140			142		mg/L				0.5	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	140			142		mg/L				0.5	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

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

Lab Sample ID: MB 550-309802/1
Matrix: Water
Analysis Batch: 309802

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			10/23/23 15:06	1

Lab Sample ID: LCS 550-309802/2
Matrix: Water
Analysis Batch: 309802

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	998		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-309802/3
Matrix: Water
Analysis Batch: 309802

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	992		mg/L		99	90 - 110	1	10

Lab Sample ID: 550-209471-B-4 DU
Matrix: Water
Analysis Batch: 309802

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	12000			11900		mg/L				1	10

Lab Sample ID: MB 550-309843/1
Matrix: Water
Analysis Batch: 309843

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			10/24/23 11:20	1

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

Lab Sample ID: LCS 550-309843/2
Matrix: Water
Analysis Batch: 309843

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	1000		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-309843/3
Matrix: Water
Analysis Batch: 309843

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	988		mg/L		99	90 - 110	1	10

Lab Sample ID: 550-209453-E-1 DU
Matrix: Water
Analysis Batch: 309843

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1300			1250		mg/L				1	10

Lab Sample ID: 550-209476-21 DU
Matrix: Water
Analysis Batch: 309843

Client Sample ID: CH-CCR-W306-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	18000			18600		mg/L				0.5	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-310003/1
Matrix: Water
Analysis Batch: 310003

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.7	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-310003/13
Matrix: Water
Analysis Batch: 310003

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-310003/25
Matrix: Water
Analysis Batch: 310003

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 550-209476-1 DU
Matrix: Water
Analysis Batch: 310003

Client Sample ID: CH-CCR-M53A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.5	H5	7.5		SU		0.1	5
Temperature	6.9	H5 T5	6.8		Degrees C		1	

Lab Sample ID: 550-209476-21 DU
Matrix: Water
Analysis Batch: 310003

Client Sample ID: CH-CCR-W306-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.9	H5	7.9		SU		0.1	5
Temperature	8.6	H5 T5	8.6		Degrees C		0	

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 550-310716/3
Matrix: Water
Analysis Batch: 310716

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50	mg/L			11/07/23 22:41	1
Dissolved Organic Carbon - Duplicate	ND		0.50	mg/L			11/07/23 22:41	1
Dissolved Organic Carbon - Quad	ND		0.50	mg/L			11/07/23 22:41	1

Lab Sample ID: LCS 550-310716/5
Matrix: Water
Analysis Batch: 310716

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.6		mg/L		98	90 - 110
Dissolved Organic Carbon - Duplicate	20.0	19.3		mg/L		97	90 - 110
Dissolved Organic Carbon - Quad	20.0	19.6		mg/L		98	90 - 110

Lab Sample ID: LCSD 550-310716/30
Matrix: Water
Analysis Batch: 310716

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.3		mg/L		96	90 - 110	1	20
Dissolved Organic Carbon - Duplicate	20.0	19.0		mg/L		95	90 - 110	2	20
Dissolved Organic Carbon - Quad	20.0	19.3		mg/L		96	90 - 110	1	20

Lab Sample ID: 550-209471-G-12 MSD
Matrix: Water
Analysis Batch: 310716

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	2.7		20.0	21.4		mg/L		93	90 - 110	6	20

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 550-209471-G-12 MSD
Matrix: Water
Analysis Batch: 310716

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon - Duplicate	2.7		20.0	21.4		mg/L		93	90 - 110	6	20
Dissolved Organic Carbon - Quad	2.7		20.0	21.4		mg/L		93	90 - 110	6	20

Lab Sample ID: 550-209471-I-12 MS
Matrix: Water
Analysis Batch: 310716

Client Sample ID: Matrix Spike
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	2.7		20.0	22.8		mg/L		100	90 - 110
Dissolved Organic Carbon - Duplicate	2.7		20.0	22.8		mg/L		100	90 - 110
Dissolved Organic Carbon - Quad	2.7		20.0	22.8		mg/L		100	90 - 110

Lab Sample ID: MB 550-310867/3
Matrix: Water
Analysis Batch: 310867

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			11/08/23 19:23	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			11/08/23 19:23	1
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			11/08/23 19:23	1

Lab Sample ID: LCS 550-310867/5
Matrix: Water
Analysis Batch: 310867

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon			20.0	18.7		mg/L		94	90 - 110
Dissolved Organic Carbon - Duplicate			20.0	18.7		mg/L		93	90 - 110
Dissolved Organic Carbon - Quad			20.0	18.7		mg/L		94	90 - 110

Lab Sample ID: LCSD 550-310867/6
Matrix: Water
Analysis Batch: 310867

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	18.3		mg/L		92	90 - 110	2	20
Dissolved Organic Carbon - Duplicate			20.0	18.7		mg/L		93	90 - 110	0	20
Dissolved Organic Carbon - Quad			20.0	18.3		mg/L		92	90 - 110	2	20

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 550-209476-9 MS
Matrix: Water
Analysis Batch: 310867

Client Sample ID: CH-CCR-MW72M-1023
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	0.55	M2	20.0	18.1	M2	mg/L		88	90 - 110		
Dissolved Organic Carbon - Duplicate	0.56	M2	20.0	18.1	M2	mg/L		88	90 - 110		
Dissolved Organic Carbon - Quad	0.55	M2	20.0	18.1	M2	mg/L		88	90 - 110		

Lab Sample ID: 550-209476-9 MSD
Matrix: Water
Analysis Batch: 310867

Client Sample ID: CH-CCR-MW72M-1023
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	0.55	M2	20.0	17.5	M2	mg/L		85	90 - 110	3	20
Dissolved Organic Carbon - Duplicate	0.56	M2	20.0	17.5	M2	mg/L		85	90 - 110	3	20
Dissolved Organic Carbon - Quad	0.55	M2	20.0	17.5	M2	mg/L		85	90 - 110	3	20

HPLC/IC

Analysis Batch: 309841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	300.0	
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	300.0	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	300.0	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	300.0	
MB 550-309841/2	Method Blank	Total/NA	Water	300.0	
LCS 550-309841/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-309841/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209146-A-19 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-209146-A-19 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 309850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	300.0	
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	300.0	
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	300.0	
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	300.0	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	300.0	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	300.0	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	300.0	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	300.0	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	300.0	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	300.0	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	300.0	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	300.0	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	300.0	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	300.0	
MB 550-309850/2	Method Blank	Total/NA	Water	300.0	
LCS 550-309850/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-309850/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209102-A-1 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-209102-A-1 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 309930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	300.0	
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	300.0	
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	300.0	
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	300.0	
MB 550-309930/2	Method Blank	Total/NA	Water	300.0	
LCS 550-309930/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-309930/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209520-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-209520-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 309960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	300.0	
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	300.0	
MB 550-309960/2	Method Blank	Total/NA	Water	300.0	
LCS 550-309960/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-309960/6	Lab Control Sample Dup	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 309960 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209537-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-209537-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 310131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-310131/2	Method Blank	Total/NA	Water	300.0	
LCS 550-310131/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-310131/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209662-A-2 MS	Matrix Spike	Total/NA	Water	300.0	
550-209662-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 310132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-310132/2	Method Blank	Total/NA	Water	9056A	
LCS 550-310132/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 550-310132/6	Lab Control Sample Dup	Total/NA	Water	9056A	
550-209060-G-2 MS	Matrix Spike	Total/NA	Water	9056A	
550-209060-G-2 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	
550-209060-O-1 DU ^10	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 310138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	300.0	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	9056A	
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	300.0	
MB 550-310138/2	Method Blank	Total/NA	Water	300.0	
LCS 550-310138/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-310138/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209214-E-3 MS ^5	Matrix Spike	Total/NA	Water	300.0	
550-209214-E-3 MSD ^5	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 310213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	9056A	
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	9056A	
MB 550-310213/2	Method Blank	Total/NA	Water	9056A	
LCS 550-310213/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 550-310213/6	Lab Control Sample Dup	Total/NA	Water	9056A	
550-209476-15 MS	CH-CCR-MW77A-1023	Total/NA	Water	9056A	
550-209476-15 MSD	CH-CCR-MW77A-1023	Total/NA	Water	9056A	

Analysis Batch: 310443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	9056A	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	9056A	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	9056A	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	9056A	
MB 550-310443/2	Method Blank	Total/NA	Water	300.0	
LCS 550-310443/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-310443/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209471-A-4 MS ^2	Matrix Spike	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 310443 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209471-A-4 MSD ^2	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-209876-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-209876-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-209471-A-4 DU ^2	Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 309746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	200.7	
550-209476-2	CH-CCR-M53A-1023	Dissolved	Water	200.7	
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	200.7	
550-209476-4	CH-CCR-MW69A-1023	Dissolved	Water	200.7	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	200.7	
550-209476-6	CH-CCR-MW70M-1023	Dissolved	Water	200.7	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	200.7	
550-209476-8	CH-CCR-MW71A-1023	Dissolved	Water	200.7	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	200.7	
550-209476-10	CH-CCR-MW72M-1023	Dissolved	Water	200.7	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	200.7	
550-209476-12	CH-CCR-MW73A-1023	Dissolved	Water	200.7	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	200.7	
550-209476-14	CH-CCR-MW74M-1023	Dissolved	Water	200.7	
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	200.7	
550-209476-16	CH-CCR-MW77A-1023	Dissolved	Water	200.7	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	200.7	
550-209476-18	CH-CCR-W301-1023	Dissolved	Water	200.7	
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	200.7	
550-209476-20	CH-CCR-W303-1023	Dissolved	Water	200.7	
MB 550-309746/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-309746/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-309746/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-209476-1 MS	CH-CCR-M53A-1023	Total/NA	Water	200.7	
550-209476-1 MSD	CH-CCR-M53A-1023	Total/NA	Water	200.7	

Prep Batch: 309748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	200.7	
550-209476-22	CH-CCR-W306-1023	Dissolved	Water	200.7	
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	200.7	
550-209476-24	CH-CCR-W314-1023	Dissolved	Water	200.7	
MB 550-309748/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-309748/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-309748/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-209344-D-1-B MS	Matrix Spike	Total/NA	Water	200.7	
550-209344-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Prep Batch: 309752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	200.8	
550-209476-22	CH-CCR-W306-1023	Dissolved	Water	200.8	

Metals (Continued)

Prep Batch: 309752 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	200.8	
550-209476-24	CH-CCR-W314-1023	Dissolved	Water	200.8	
MB 550-309752/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-309752/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-309752/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-209464-A-1-A MS	Matrix Spike	Total/NA	Water	200.8	
550-209464-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Prep Batch: 309755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	200.8	
550-209476-2	CH-CCR-M53A-1023	Dissolved	Water	200.8	
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	200.8	
550-209476-4	CH-CCR-MW69A-1023	Dissolved	Water	200.8	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	200.8	
550-209476-6	CH-CCR-MW70M-1023	Dissolved	Water	200.8	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	200.8	
550-209476-8	CH-CCR-MW71A-1023	Dissolved	Water	200.8	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	200.8	
550-209476-10	CH-CCR-MW72M-1023	Dissolved	Water	200.8	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	200.8	
550-209476-12	CH-CCR-MW73A-1023	Dissolved	Water	200.8	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	200.8	
550-209476-14	CH-CCR-MW74M-1023	Dissolved	Water	200.8	
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	200.8	
550-209476-16	CH-CCR-MW77A-1023	Dissolved	Water	200.8	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	200.8	
550-209476-18	CH-CCR-W301-1023	Dissolved	Water	200.8	
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	200.8	
550-209476-20	CH-CCR-W303-1023	Dissolved	Water	200.8	
MB 550-309755/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-309755/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-309755/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-209476-3 MS	CH-CCR-MW69A-1023	Total/NA	Water	200.8	
550-209476-3 MSD	CH-CCR-MW69A-1023	Total/NA	Water	200.8	

Prep Batch: 309852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	245.1	
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	245.1	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	245.1	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	245.1	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	245.1	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	245.1	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	245.1	
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	245.1	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	245.1	
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	245.1	
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	245.1	
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	245.1	
MB 550-309852/1-A	Method Blank	Total/NA	Water	245.1	

Metals (Continued)

Prep Batch: 309852 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-309852/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-309852/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-209436-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
550-209476-13 MS	CH-CCR-MW74M-1023	Total/NA	Water	245.1	

Analysis Batch: 309876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	245.1	309852
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	245.1	309852
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	245.1	309852
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	245.1	309852
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	245.1	309852
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	245.1	309852
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	245.1	309852
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	245.1	309852
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	245.1	309852
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	245.1	309852
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	245.1	309852
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	245.1	309852
MB 550-309852/1-A	Method Blank	Total/NA	Water	245.1	309852
LCS 550-309852/2-A	Lab Control Sample	Total/NA	Water	245.1	309852
LCSD 550-309852/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	309852
550-209436-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	309852
550-209476-13 MS	CH-CCR-MW74M-1023	Total/NA	Water	245.1	309852

Analysis Batch: 309919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	200.7 Rev 4.4	309748
550-209476-22	CH-CCR-W306-1023	Dissolved	Water	200.7	309748
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	200.7 Rev 4.4	309748
550-209476-24	CH-CCR-W314-1023	Dissolved	Water	200.7	309748
MB 550-309748/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	309748
LCS 550-309748/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	309748
LCSD 550-309748/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	309748
550-209344-D-1-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	309748
550-209344-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	309748

Analysis Batch: 309934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	200.8 LL	309752
550-209476-22	CH-CCR-W306-1023	Dissolved	Water	200.8 LL	309752
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	200.8 LL	309752
550-209476-24	CH-CCR-W314-1023	Dissolved	Water	200.8 LL	309752
MB 550-309752/1-A	Method Blank	Total/NA	Water	200.8 LL	309752
LCS 550-309752/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	309752
LCSD 550-309752/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	309752
550-209464-A-1-A MS	Matrix Spike	Total/NA	Water	200.8 LL	309752
550-209464-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	309752

Metals

Analysis Batch: 309935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	200.8 LL	309755
550-209476-2	CH-CCR-M53A-1023	Dissolved	Water	200.8 LL	309755
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	200.8 LL	309755
550-209476-4	CH-CCR-MW69A-1023	Dissolved	Water	200.8 LL	309755
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	200.8 LL	309755
550-209476-6	CH-CCR-MW70M-1023	Dissolved	Water	200.8 LL	309755
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	200.8 LL	309755
550-209476-8	CH-CCR-MW71A-1023	Dissolved	Water	200.8 LL	309755
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	200.8 LL	309755
550-209476-10	CH-CCR-MW72M-1023	Dissolved	Water	200.8 LL	309755
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	200.8 LL	309755
550-209476-12	CH-CCR-MW73A-1023	Dissolved	Water	200.8 LL	309755
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	200.8 LL	309755
550-209476-14	CH-CCR-MW74M-1023	Dissolved	Water	200.8 LL	309755
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	200.8 LL	309755
550-209476-16	CH-CCR-MW77A-1023	Dissolved	Water	200.8 LL	309755
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	200.8 LL	309755
550-209476-18	CH-CCR-W301-1023	Dissolved	Water	200.8 LL	309755
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	200.8 LL	309755
550-209476-20	CH-CCR-W303-1023	Dissolved	Water	200.8 LL	309755
MB 550-309755/1-A	Method Blank	Total/NA	Water	200.8 LL	309755
LCS 550-309755/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	309755
LCSD 550-309755/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	309755
550-209476-3 MS	CH-CCR-MW69A-1023	Total/NA	Water	200.8 LL	309755
550-209476-3 MSD	CH-CCR-MW69A-1023	Total/NA	Water	200.8 LL	309755

Analysis Batch: 309988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-2	CH-CCR-M53A-1023	Dissolved	Water	200.7	309746
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-4	CH-CCR-MW69A-1023	Dissolved	Water	200.7	309746
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-6	CH-CCR-MW70M-1023	Dissolved	Water	200.7	309746
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-8	CH-CCR-MW71A-1023	Dissolved	Water	200.7	309746
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-12	CH-CCR-MW73A-1023	Dissolved	Water	200.7	309746
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-14	CH-CCR-MW74M-1023	Dissolved	Water	200.7	309746
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-16	CH-CCR-MW77A-1023	Dissolved	Water	200.7	309746
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-18	CH-CCR-W301-1023	Dissolved	Water	200.7	309746
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-20	CH-CCR-W303-1023	Dissolved	Water	200.7	309746
MB 550-309746/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	309746
LCS 550-309746/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	309746
LCSD 550-309746/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-1 MS	CH-CCR-M53A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-1 MSD	CH-CCR-M53A-1023	Total/NA	Water	200.7 Rev 4.4	309746

Metals

Analysis Batch: 310148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-10	CH-CCR-MW72M-1023	Dissolved	Water	200.7	309746
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	200.7 Rev 4.4	309746
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	200.7 Rev 4.4	309746

Analysis Batch: 310150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	200.7 Rev 4.4	309748

Analysis Batch: 310222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	200.7 Rev 4.4	309746

Prep Batch: 377008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total Recoverable	Water	200.7	
550-209476-3	CH-CCR-MW69A-1023	Total Recoverable	Water	200.7	
550-209476-5	CH-CCR-MW70M-1023	Total Recoverable	Water	200.7	
550-209476-7	CH-CCR-MW71A-1023	Total Recoverable	Water	200.7	
550-209476-9	CH-CCR-MW72M-1023	Total Recoverable	Water	200.7	
550-209476-11	CH-CCR-MW73A-1023	Total Recoverable	Water	200.7	
550-209476-13	CH-CCR-MW74M-1023	Total Recoverable	Water	200.7	
550-209476-15	CH-CCR-MW77A-1023	Total Recoverable	Water	200.7	
550-209476-17	CH-CCR-W301-1023	Total Recoverable	Water	200.7	
550-209476-19	CH-CCR-W303-1023	Total Recoverable	Water	200.7	
550-209476-21	CH-CCR-W306-1023	Total Recoverable	Water	200.7	
550-209476-23	CH-CCR-W314-1023	Total Recoverable	Water	200.7	
MB 570-377008/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 570-377008/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 570-377008/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
550-209476-1 MS	CH-CCR-M53A-1023	Total Recoverable	Water	200.7	
550-209476-1 MSD	CH-CCR-M53A-1023	Total Recoverable	Water	200.7	
550-209476-19 MS	CH-CCR-W303-1023	Total Recoverable	Water	200.7	
550-209476-19 MSD	CH-CCR-W303-1023	Total Recoverable	Water	200.7	

Analysis Batch: 378187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-3	CH-CCR-MW69A-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-5	CH-CCR-MW70M-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-7	CH-CCR-MW71A-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-11	CH-CCR-MW73A-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-13	CH-CCR-MW74M-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-15	CH-CCR-MW77A-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-17	CH-CCR-W301-1023	Total Recoverable	Water	200.7 Rev 4.4	377008

Metals (Continued)

Analysis Batch: 378187 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-19	CH-CCR-W303-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-21	CH-CCR-W306-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-23	CH-CCR-W314-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-1 MS	CH-CCR-M53A-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-1 MSD	CH-CCR-M53A-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-19 MS	CH-CCR-W303-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
550-209476-19 MSD	CH-CCR-W303-1023	Total Recoverable	Water	200.7 Rev 4.4	377008

Analysis Batch: 379064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-9	CH-CCR-MW72M-1023	Total Recoverable	Water	200.7 Rev 4.4	377008
MB 570-377008/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	377008
LCS 570-377008/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	377008
LCSD 570-377008/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	377008

General Chemistry

Analysis Batch: 309802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	SM 2540C	
MB 550-309802/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-309802/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-309802/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-209471-B-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 309843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	SM 2540C	
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	SM 2540C	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	SM 2540C	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	SM 2540C	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	SM 2540C	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	SM 2540C	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	SM 2540C	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	SM 2540C	
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	SM 2540C	
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	SM 2540C	
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	SM 2540C	
MB 550-309843/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-309843/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-309843/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-209453-E-1 DU	Duplicate	Total/NA	Water	SM 2540C	
550-209476-21 DU	CH-CCR-W306-1023	Total/NA	Water	SM 2540C	

Analysis Batch: 309886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	SM 2320B	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	SM 2320B	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	SM 2320B	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	SM 2320B	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 309886 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	SM 2320B	
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	SM 2320B	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	SM 2320B	
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	SM 2320B	
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	SM 2320B	
MB 550-309886/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-309886/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-309886/10	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-209476-3 DU	CH-CCR-MW69A-1023	Total/NA	Water	SM 2320B	

Analysis Batch: 310003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-310003/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-310003/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-310003/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-209476-1 DU	CH-CCR-M53A-1023	Total/NA	Water	SM 4500 H+ B	
550-209476-21 DU	CH-CCR-W306-1023	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 310263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	350.1	
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	350.1	
MB 550-310263/110	Method Blank	Total/NA	Water	350.1	
MB 550-310263/159	Method Blank	Total/NA	Water	350.1	
LCS 550-310263/111	Lab Control Sample	Total/NA	Water	350.1	
LCS 550-310263/160	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-310263/112	Lab Control Sample Dup	Total/NA	Water	350.1	
LCSD 550-310263/161	Lab Control Sample Dup	Total/NA	Water	350.1	
550-209471-B-1 MS	Matrix Spike	Total/NA	Water	350.1	
550-209471-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
550-209476-23 MS	CH-CCR-W314-1023	Total/NA	Water	350.1	
550-209476-23 MSD	CH-CCR-W314-1023	Total/NA	Water	350.1	

Analysis Batch: 310375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	350.1	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	350.1	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	350.1	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 310375 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	350.1	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	350.1	
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	350.1	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	350.1	
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	350.1	
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	350.1	
MB 550-310375/60	Method Blank	Total/NA	Water	350.1	
LCS 550-310375/61	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-310375/62	Lab Control Sample Dup	Total/NA	Water	350.1	
550-209476-3 MS	CH-CCR-MW69A-1023	Total/NA	Water	350.1	
550-209476-3 MSD	CH-CCR-MW69A-1023	Total/NA	Water	350.1	

Analysis Batch: 310716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Dissolved	Water	SM 5310B	
550-209476-3	CH-CCR-MW69A-1023	Dissolved	Water	SM 5310B	
550-209476-7	CH-CCR-MW71A-1023	Dissolved	Water	SM 5310B	
550-209476-11	CH-CCR-MW73A-1023	Dissolved	Water	SM 5310B	
550-209476-13	CH-CCR-MW74M-1023	Dissolved	Water	SM 5310B	
550-209476-15	CH-CCR-MW77A-1023	Dissolved	Water	SM 5310B	
550-209476-17	CH-CCR-W301-1023	Dissolved	Water	SM 5310B	
550-209476-19	CH-CCR-W303-1023	Dissolved	Water	SM 5310B	
550-209476-21	CH-CCR-W306-1023	Dissolved	Water	SM 5310B	
550-209476-23	CH-CCR-W314-1023	Dissolved	Water	SM 5310B	
MB 550-310716/3	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-310716/5	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-310716/30	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-209471-G-12 MSD	Matrix Spike Duplicate	Dissolved	Water	SM 5310B	
550-209471-I-12 MS	Matrix Spike	Dissolved	Water	SM 5310B	

Analysis Batch: 310867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-5	CH-CCR-MW70M-1023	Dissolved	Water	SM 5310B	
550-209476-9	CH-CCR-MW72M-1023	Dissolved	Water	SM 5310B	
MB 550-310867/3	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-310867/5	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-310867/6	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-209476-9 MS	CH-CCR-MW72M-1023	Dissolved	Water	SM 5310B	
550-209476-9 MSD	CH-CCR-MW72M-1023	Dissolved	Water	SM 5310B	

Analysis Batch: 631180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-1	CH-CCR-M53A-1023	Total/NA	Water	353.2	
550-209476-3	CH-CCR-MW69A-1023	Total/NA	Water	353.2	
550-209476-5	CH-CCR-MW70M-1023	Total/NA	Water	353.2	
550-209476-7	CH-CCR-MW71A-1023	Total/NA	Water	353.2	
550-209476-9	CH-CCR-MW72M-1023	Total/NA	Water	353.2	
550-209476-11	CH-CCR-MW73A-1023	Total/NA	Water	353.2	
550-209476-13	CH-CCR-MW74M-1023	Total/NA	Water	353.2	
550-209476-15	CH-CCR-MW77A-1023	Total/NA	Water	353.2	
550-209476-17	CH-CCR-W301-1023	Total/NA	Water	353.2	

General Chemistry (Continued)

Analysis Batch: 631180 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209476-19	CH-CCR-W303-1023	Total/NA	Water	353.2	
550-209476-21	CH-CCR-W306-1023	Total/NA	Water	353.2	
550-209476-23	CH-CCR-W314-1023	Total/NA	Water	353.2	
MB 280-631180/22	Method Blank	Total/NA	Water	353.2	
MB 280-631180/60	Method Blank	Total/NA	Water	353.2	
LCS 280-631180/21	Lab Control Sample	Total/NA	Water	353.2	
LCS 280-631180/59	Lab Control Sample	Total/NA	Water	353.2	
550-209476-1 MS	CH-CCR-M53A-1023	Total/NA	Water	353.2	
550-209476-1 MSD	CH-CCR-M53A-1023	Total/NA	Water	353.2	
550-209476-15 MS	CH-CCR-MW77A-1023	Total/NA	Water	353.2	
550-209476-15 MSD	CH-CCR-MW77A-1023	Total/NA	Water	353.2	

Client Sample ID: CH-CCR-M53A-1023

Lab Sample ID: 550-209476-1

Date Collected: 10/19/23 11:48
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 03:13
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/22/23 03:31
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 20:20
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 09:56
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		1	309988	GLW	EET PHX	10/25/23 18:11
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:43
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:15
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 14:54
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:30
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 08:46
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 01:37

Client Sample ID: CH-CCR-M53A-1023

Lab Sample ID: 550-209476-2

Date Collected: 10/19/23 11:48
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		1	309988	GLW	EET PHX	10/25/23 18:14
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:46

Client Sample ID: CH-CCR-MW69A-1023

Lab Sample ID: 550-209476-3

Date Collected: 10/19/23 09:11
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 03:50
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/22/23 04:08
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 10:04
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		1	309988	GLW	EET PHX	10/25/23 18:17
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		10	310148	GLW	EET PHX	10/26/23 19:38
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:39
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:17

Lab Chronicle

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-MW69A-1023
Date Collected: 10/19/23 09:11
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:53
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:42
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 15:35
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 08:48
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 02:00

Client Sample ID: CH-CCR-MW69A-1023
Date Collected: 10/19/23 09:11
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		1	309988	GLW	EET PHX	10/25/23 18:20
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:41

Client Sample ID: CH-CCR-MW70M-1023
Date Collected: 10/18/23 15:43
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 04:27
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/22/23 04:45
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 10:06
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		1	309988	GLW	EET PHX	10/25/23 18:23
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		10	310148	GLW	EET PHX	10/26/23 19:41
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:48
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:19
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:58
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:44
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 15:49
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 08:50
Dissolved	Analysis	SM 5310B		1	310867	SMA	EET PHX	11/08/23 22:03

Lab Chronicle

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-MW70M-1023
Date Collected: 10/18/23 15:43
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		1	309988	GLW	EET PHX	10/25/23 18:26
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:50

Client Sample ID: CH-CCR-MW71A-1023
Date Collected: 10/18/23 13:12
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 05:03
Total/NA	Analysis	300.0		20	309850	MMH	EET PHX	10/22/23 05:22
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 20:39
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 10:08
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		1	309988	GLW	EET PHX	10/25/23 18:28
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		10	310148	GLW	EET PHX	10/26/23 19:43
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:52
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:21
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:59
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 13:58
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 15:56
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 08:51
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 02:44

Client Sample ID: CH-CCR-MW71A-1023
Date Collected: 10/18/23 13:12
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		1	309988	GLW	EET PHX	10/25/23 18:31
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:54

Lab Chronicle

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-MW72M-1023

Lab Sample ID: 550-209476-9
Date Collected: 10/18/23 14:02
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 05:40
Total/NA	Analysis	300.0		20	309850	MMH	EET PHX	10/22/23 06:54
Total/NA	Analysis	300.0		200	310138	SMA	EET PHX	10/28/23 21:03
Total/NA	Analysis	9056A		200	310138	SMA	EET PHX	10/28/23 21:03
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		20	379064	P1R	EET CAL 4	10/31/23 18:18
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		10	310148	GLW	EET PHX	10/26/23 19:46
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		20	310222	GLW	EET PHX	10/30/23 14:56
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:56
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:23
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 14:01
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 14:00
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 16:02
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 08:53
Dissolved	Analysis	SM 5310B		1	310867	SMA	EET PHX	11/08/23 21:02

Client Sample ID: CH-CCR-MW72M-1023

Lab Sample ID: 550-209476-10
Date Collected: 10/18/23 14:02
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		10	310148	GLW	EET PHX	10/26/23 19:49
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 17:58

Client Sample ID: CH-CCR-MW73A-1023

Lab Sample ID: 550-209476-11
Date Collected: 10/18/23 11:00
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 07:12
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/22/23 07:31
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 20:57
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 10:13
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		1	309988	GLW	EET PHX	10/25/23 18:45

Client Sample ID: CH-CCR-MW73A-1023

Lab Sample ID: 550-209476-11
Matrix: Water
Date Collected: 10/18/23 11:00
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		10	310148	GLW	EET PHX	10/26/23 19:58
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:06
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:25
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 14:02
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 14:02
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 16:06
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 08:55
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 04:12

Client Sample ID: CH-CCR-MW73A-1023

Lab Sample ID: 550-209476-12
Matrix: Water
Date Collected: 10/18/23 11:00
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		1	309988	GLW	EET PHX	10/25/23 18:48
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:08

Client Sample ID: CH-CCR-MW74M-1023

Lab Sample ID: 550-209476-13
Matrix: Water
Date Collected: 10/18/23 10:00
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309850	MMH	EET PHX	10/22/23 07:49
Total/NA	Analysis	300.0		50	309850	MMH	EET PHX	10/22/23 08:08
Total/NA	Analysis	9056A		2	310443	SMA	EET PHX	11/02/23 21:16
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 10:16
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		1	309988	GLW	EET PHX	10/25/23 18:51
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		10	310148	GLW	EET PHX	10/26/23 20:01
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:10
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:32
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 14:04
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 14:04
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 16:13

Lab Chronicle

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-MW74M-1023
Date Collected: 10/18/23 10:00
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 08:56
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 04:33

Client Sample ID: CH-CCR-MW74M-1023
Date Collected: 10/18/23 10:00
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		1	309988	GLW	EET PHX	10/25/23 18:54
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:12

Client Sample ID: CH-CCR-MW77A-1023
Date Collected: 10/17/23 14:54
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309841	MMH	EET PHX	10/22/23 07:30
Total/NA	Analysis	300.0		50	309841	MMH	EET PHX	10/22/23 09:22
Total/NA	Analysis	9056A		1	310213	MMH	EET PHX	10/30/23 12:18
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 10:18
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		1	309988	GLW	EET PHX	10/25/23 18:57
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		10	310148	GLW	EET PHX	10/26/23 20:04
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:14
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:36
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 14:05
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 14:10
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 16:19
Total/NA	Analysis	SM 2540C		1	309802	KMG	EET PHX	10/23/23 15:06 - 10/27/23 12:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 08:57
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 04:55

Lab Chronicle

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-MW77A-1023

Lab Sample ID: 550-209476-16

Date Collected: 10/17/23 14:54
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		1	309988	GLW	EET PHX	10/25/23 19:00
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:16

Client Sample ID: CH-CCR-W301-1023

Lab Sample ID: 550-209476-17

Date Collected: 10/19/23 15:52
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309841	MMH	EET PHX	10/22/23 09:49
Total/NA	Analysis	300.0		50	309841	MMH	EET PHX	10/22/23 10:17
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 10:29
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		1	309988	GLW	EET PHX	10/25/23 19:02
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		10	310148	GLW	EET PHX	10/26/23 20:06
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:18
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:38
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 14:07
Total/NA	Analysis	353.2		2	631180	BCR	EET DEN	10/25/23 14:16
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 16:27
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 08:59
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 05:17

Client Sample ID: CH-CCR-W301-1023

Lab Sample ID: 550-209476-18

Date Collected: 10/19/23 15:52
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		1	309988	GLW	EET PHX	10/25/23 19:05
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:20

Lab Chronicle

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-W303-1023

Lab Sample ID: 550-209476-19

Date Collected: 10/19/23 13:35
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309960	MMH	EET PHX	10/24/23 18:34
Total/NA	Analysis	300.0		50	309960	MMH	EET PHX	10/24/23 19:02
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 10:31
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		1	309988	GLW	EET PHX	10/25/23 19:08
Total/NA	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Total/NA	Analysis	200.7 Rev 4.4		10	310148	GLW	EET PHX	10/26/23 20:09
Total/NA	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Total/NA	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:22
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:40
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 14:08
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 14:30
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 16:34
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:00
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 05:40

Client Sample ID: CH-CCR-W303-1023

Lab Sample ID: 550-209476-20

Date Collected: 10/19/23 13:35
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309746	SGO	EET PHX	10/23/23 06:31
Dissolved	Analysis	200.7		1	309988	GLW	EET PHX	10/25/23 19:11
Dissolved	Prep	200.8			309755	SGO	EET PHX	10/23/23 09:48
Dissolved	Analysis	200.8 LL		5	309935	DSJ	EET PHX	10/24/23 18:24

Client Sample ID: CH-CCR-W306-1023

Lab Sample ID: 550-209476-21

Date Collected: 10/19/23 10:30
Matrix: Water
Date Received: 10/20/23 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309930	MMH	EET PHX	10/24/23 15:50
Total/NA	Analysis	300.0		50	309930	MMH	EET PHX	10/24/23 16:09
Total/NA	Analysis	300.0		200	310138	SMA	EET PHX	10/28/23 21:59
Total/NA	Analysis	9056A		1	310213	MMH	EET PHX	10/30/23 14:27
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		1	378187	P1R	EET CAL 4	10/27/23 20:13
Total/NA	Prep	200.7			309748	SGO	EET PHX	10/23/23 06:49
Total/NA	Analysis	200.7 Rev 4.4		1	309919	GLW	EET PHX	10/24/23 19:07
Total/NA	Prep	200.7			309748	SGO	EET PHX	10/23/23 06:49
Total/NA	Analysis	200.7 Rev 4.4		20	310150	GLW	EET PHX	10/26/23 20:23

Lab Chronicle

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-W306-1023
Date Collected: 10/19/23 10:30
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-21
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			309752	SGO	EET PHX	10/23/23 09:30
Total/NA	Analysis	200.8 LL		5	309934	DSJ	EET PHX	10/24/23 16:42
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:42
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 14:10
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 14:32
Total/NA	Analysis	SM 2320B		1	309886	MAN	EET PHX	10/24/23 16:41
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:03
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 06:02

Client Sample ID: CH-CCR-W306-1023
Date Collected: 10/19/23 10:30
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-22
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309748	SGO	EET PHX	10/23/23 06:49
Dissolved	Analysis	200.7		1	309919	GLW	EET PHX	10/24/23 19:10
Dissolved	Prep	200.8			309752	SGO	EET PHX	10/23/23 09:30
Dissolved	Analysis	200.8 LL		5	309934	DSJ	EET PHX	10/24/23 16:44

Client Sample ID: CH-CCR-W314-1023
Date Collected: 10/19/23 08:45
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-23
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	309930	MMH	EET PHX	10/24/23 16:27
Total/NA	Analysis	300.0		50	309930	MMH	EET PHX	10/24/23 17:48
Total Recoverable	Prep	200.7			377008	JP8N	EET CAL 4	10/25/23 08:52
Total Recoverable	Analysis	200.7 Rev 4.4		2	378187	P1R	EET CAL 4	10/28/23 10:39
Total/NA	Prep	200.7			309748	SGO	EET PHX	10/23/23 06:49
Total/NA	Analysis	200.7 Rev 4.4		1	309919	GLW	EET PHX	10/24/23 19:13
Total/NA	Prep	200.8			309752	SGO	EET PHX	10/23/23 09:30
Total/NA	Analysis	200.8 LL		5	309934	DSJ	EET PHX	10/24/23 16:46
Total/NA	Prep	245.1			309852	HHL	EET PHX	10/24/23 13:22
Total/NA	Analysis	245.1		1	309876	HHL	EET PHX	10/24/23 16:44
Total/NA	Analysis	350.1		1	310263	MAN	EET PHX	10/30/23 13:45
Total/NA	Analysis	353.2		1	631180	BCR	EET DEN	10/25/23 14:34
Total/NA	Analysis	SM 2540C		1	309843	KMG	EET PHX	10/24/23 11:20 - 10/30/23 17:11 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310003	MAN	EET PHX	10/26/23 09:05
Dissolved	Analysis	SM 5310B		1	310716	SMA	EET PHX	11/08/23 06:19

Lab Chronicle

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-W314-1023

Date Collected: 10/19/23 08:45
Date Received: 10/20/23 15:01

Lab Sample ID: 550-209476-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309748	SGO	EET PHX	10/23/23 06:49
Dissolved	Analysis	200.7		1	309919	GLW	EET PHX	10/24/23 19:15
Dissolved	Prep	200.8			309752	SGO	EET PHX	10/23/23 09:30
Dissolved	Analysis	200.8 LL		5	309934	DSJ	EET PHX	10/24/23 16:48

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8 LL	200.8	Water	Molybdenum
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-23
California	SCAQMD LAP	17LA0919	11-30-23
California	State	3082	07-31-24
Nevada	State	CA00111	07-31-24
Oregon	NELAP	4175	02-02-24
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-23 *

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-23

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

Method Summary

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

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
9056A	Anions, Ion Chromatography	SW846	EET PHX
200.7	Dissolved Metals by ICP	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET CAL 4
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET CAL 4
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209476

TestAmerica Laboratories, Inc.

11/14/2023

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	1 of 2 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)	9056A - Fluoride	Sample Specific Notes:
CH-CCR-M53A-1023	1+2	10/19/23	1148	G	W	11	*		X		X		X	X	X	X	X	X	X	X	X	X		X	Low Flow
CH-CCR-MW69A-1023	3+4	10/19/23	911	G	W	10	*		X			X	X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-MW70M-1023	5+6	10/18/23	1543	G	W	10	*		X			X	X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-MW71A-1023	7+8	10/18/23	1312	G	W	11	*		X			X	X	X	X	X	X	X	X	X	X	X	X	X	"
CH-CCR-MW72M-1023	9+10	10/18/23	1402	G	W	11	*		X			X	X	X	X	X	X	X	X	X	X	X	X	X	"
CH-CCR-MW73A-1023	11+12	10/18/23	1100	G	W	11	*		X			X	X	X	X	X	X	X	X	X	X	X	X	X	"
CH-CCR-MW74M-1023	13+14	10/18/23	1000	G	W	11	*		X			X	X	X	X	X	X	X	X	X	X	X	X	X	"
CH-CCR-MW77A-1023	15+16	10/17/23	1454	G	W	11	*		X			X	X	X	X	X	X	X	X	X	X	X	X	X	"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____									1	4	4	4	4	4	4	4	4	1	1	2	3	3	1		

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab

550-209476 Chain of Custody

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; *As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	10-20-23 1501			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	EETA PHX	10/20/23 15:01

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

1.9 | 2.3 | 3.1 | 3.2 | 4.6 | 2.1

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209476

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Robert	Carrier:	2 of 2 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)	9056A - Fluoride	Sample Specific Notes:
CH-CCR-W301-1023 17 HK	10/19/23	1552	G	W	10	*		X	X			X	X	X	X	X	X	X	X	X	X	X		Low Flow
CH-CCR-W303-1023 19 20	10/19/23	1335	G	W	10	*		X	X			X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-W306-1023 21 22	10/19/23	1030	G	W	11	*		X	X			X	X	X	X	X	X	X	X	X	X	X	X	"
CH-CCR-W314-1023 23 24	10/18/23	845	G	W	10	*		X		X		X	X	X	X	X	X	X	X	X				"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1		

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
MSL	WSP	10-20-23 1501			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Jorge Vela	FEETA PHX	10/20/23 15:0

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

1.9 | 2.3 | 3.1 | 3.2 | 4.6 | 5.1

11/14/2023

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No. 550-38074.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209476-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 11/2/2023			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CH-CCR-M53A-1023 (550-209476-1)	10/19/23	11:48 Arizona		Water			X	1	
CH-CCR-MW69A-1023 (550-209476-3)	10/19/23	09:11 Arizona		Water			X	1	
CH-CCR-MW70M-1023 (550-209476-5)	10/18/23	15:43 Arizona		Water			X	1	
CH-CCR-MW71A-1023 (550-209476-7)	10/18/23	13:12 Arizona		Water			X	1	
CH-CCR-MW72M-1023 (550-209476-9)	10/18/23	14:02 Arizona		Water			X	1	
CH-CCR-MW73A-1023 (550-209476-11)	10/18/23	11:00 Arizona		Water			X	1	
CH-CCR-MW74M-1023 (550-209476-13)	10/18/23	10:00 Arizona		Water			X	1	
CH-CCR-MW77A-1023 (550-209476-15)	10/17/23	14:54 Arizona		Water			X	1	
CH-CCR-W301-1023 (550-209476-17)	10/19/23	15:52 Arizona		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10-23-23	15:30	EETSW	Fedex		
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
					10/24/23 0840	EETSW
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.6 IR Manno CF0.3

Ver: 06/08/2021

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone. 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38074.2
Client Contact: Shipping/Receiving	Phone	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209476-1
Address: 4955 Yarrow Street,	Due Date Requested: 11/2/2023	Analysis Requested		Preservation Codes:
City: Arvada	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #			Other:
Email:	WO #			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CH-CCR-W303-1023 (550-209476-19)	10/19/23	13:35 Arizona		Water			X	1	
CH-CCR-W306-1023 (550-209476-21)	10/19/23	10:30 Arizona		Water			X	1	
CH-CCR-W314-1023 (550-209476-23)	10/19/23	08:45 Arizona		Water			X	1	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
10-23-23	15:30	EET	FedEx		
Relinquished by	Date/Time	Company	Received by:	Date/Time:	Company
				01/24/23 0940	EET PHX
Relinquished by	Date/Time.	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38073.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209476-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 11/2/2023			Preservation C
City: Tustin	TAT Requested (days):			A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			Other:
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Custom 200.7 Metals List	Total Number of containers	Special
			Preservation Code:						
CH-CCR-M53A-1023 (550-209476-1)	10/19/23	11:48 Arizona		Water			X	1	
CH-CCR-MW69A-1023 (550-209476-3)	10/19/23	09:11 Arizona		Water			X	1	
CH-CCR-MW70M-1023 (550-209476-5)	10/18/23	15:43 Arizona		Water			X	1	
CH-CCR-MW71A-1023 (550-209476-7)	10/18/23	13:12 Arizona		Water			X	1	
CH-CCR-MW72M-1023 (550-209476-9)	10/18/23	14:02 Arizona		Water			X	1	
CH-CCR-MW73A-1023 (550-209476-11)	10/18/23	11:00 Arizona		Water			X	1	
CH-CCR-MW74M-1023 (550-209476-13)	10/18/23	10:00 Arizona		Water			X	1	
CH-CCR-MW77A-1023 (550-209476-15)	10/17/23	14:54 Arizona		Water			X	1	
CH-CCR-W301-1023 (550-209476-17)	10/19/23	15:52 Arizona		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under ch laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pro accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testir

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:
1	[illegible] 10-23-23	15:30	[illegible]	Fedex	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10/24/23 0935
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: SC12 1.6/1

550-209476 Chain of Custody

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofin

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38073.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209476-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 11/2/2023			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation C
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Custom 200.7 Metals List	Total Number of containers	Special
			Preservation Code:						
CH-CCR-W303-1023 (550-209476-19)	10/19/23	13:35 Arizona		Water			X	1	
CH-CCR-W306-1023 (550-209476-21)	10/19/23	10:30 Arizona		Water			X	1	
CH-CCR-W314-1023 (550-209476-23)	10/19/23	08:45 Arizona		Water			X	1	

Note: Since laboratory accreditations are subject to change. Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under ch laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pro accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testir

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: [illegible] 10-23-23	Date/Time: 15:30 EDT	Company	Received by: Fedex	Date/Time:	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10/24/23 0935	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:


TestAmerica
THE LEADER IN ENVIRONMENTAL TESTI
eurofins | Environment Testing TestAmerica
2219793
ORIGIN ID:INWA (602) 437-3340
TESTAMERICA-PHOENIX
TESTAMERICA
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US
SHIP DATE: 23OCT23
ACTWGT: 52.60 LB
CAD: 0875926/CAFE3
DIMS: 25x13x14 IN
BILL RECIPIENT
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUT
2841 DOW AVENUE, SUITE 100
TUSTIN CA 92780
(714) 895-5494
REF: S550-86672
PO: YES
DEPT: SAMPLE RECEIVING
TUE - 24 OCT 1
PRIORITY OVERI
TRK# 0201 6388 9413 2200
QZ DTHA
CA-U
Custody Seal
DATE 10-23-23
SIGNATURE
eurofins | Environment Testing TestAmerica
2219793


550-209476 Waybill

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209476-1
SDG Number: APS Cholla Power Plant (BAP)

Login Number: 209476
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209476-1
SDG Number: APS Cholla Power Plant (BAP)

Login Number: 209476
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 10/24/23 01:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	2219793
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209476-1
SDG Number: APS Cholla Power Plant (BAP)

Login Number: 209476
List Number: 3
Creator: Rystrom, Joshua R

List Source: Eurofins Denver
List Creation: 10/24/23 05:29 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 11/22/2023 1:28:32 PM

JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plant (BAP)

JOB NUMBER

550-209609-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

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Job Notes

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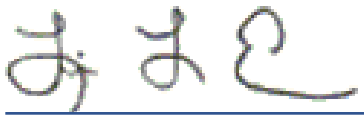
The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Authorized for release by
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(602)659-7681

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Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.

Metals

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Job ID: 550-209609-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-209609-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/25/2023 1:44 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.1°C, 1.4°C, 1.6°C and 3.2°C

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

Metals
Method 200.8_CWA_LL: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: CH-CCR-MW78A-1023 (550-209609-1), CH-CCR-MW78A-1023 (550-209609-2), CH-CCR-BAPTD-1023 (550-209609-3), CH-CCR-BAPTD-1023 (550-209609-4), CH-CCR-Petroglyph-1023 (550-209609-5), CH-CCR-Petroglyph-1023 (550-209609-6), CH-CCR-TannerWash-1023 (550-209609-7), CH-CCR-TannerWash-1023 (550-209609-8), CH-CCR-TWX3-1023 (550-209609-9), CH-CCR-TWX3-1023 (550-209609-10), (550-209609-F-1-A MS) and (550-209609-F-1-B MSD).

Method 200.8_CWA_LL: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: CH-CCR-MW78A-1023 (550-209609-1), CH-CCR-TWX5-1023 (550-209609-11), CH-CCR-TWX5-1023 (550-209609-12), CH-CCR-TWX7-1023 (550-209609-13), CH-CCR-TWX7-1023 (550-209609-14), CH-CCR-TWX9-1023 (550-209609-15), CH-CCR-TWX9-1023 (550-209609-16), CH-CCR-TWX10-1023 (550-209609-17), CH-CCR-TWX10-1023 (550-209609-18), CH-CCR-EB01-1023 (550-209609-19), CH-CCR-EB01-1023 (550-209609-20), (550-209609-F-1-A MS ^5) and (550-209609-F-1-B MSD ^5).

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

General Chemistry
Method SM5310_DOC_B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 550-310867 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Sample Summary

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-209609-1	CH-CCR-MW78A-1023	Water	10/23/23 13:00	10/25/23 13:44
550-209609-2	CH-CCR-MW78A-1023	Water	10/23/23 13:00	10/25/23 13:44
550-209609-3	CH-CCR-BAPTD-1023	Water	10/24/23 08:42	10/25/23 13:44
550-209609-4	CH-CCR-BAPTD-1023	Water	10/24/23 08:42	10/25/23 13:44
550-209609-5	CH-CCR-Petroglyph-1023	Water	10/24/23 09:09	10/25/23 13:44
550-209609-6	CH-CCR-Petroglyph-1023	Water	10/24/23 09:09	10/25/23 13:44
550-209609-7	CH-CCR-TannerWash-1023	Water	10/24/23 09:28	10/25/23 13:44
550-209609-8	CH-CCR-TannerWash-1023	Water	10/24/23 09:28	10/25/23 13:44
550-209609-9	CH-CCR-TWX3-1023	Water	10/24/23 10:07	10/25/23 13:44
550-209609-10	CH-CCR-TWX3-1023	Water	10/24/23 10:07	10/25/23 13:44
550-209609-11	CH-CCR-TWX5-1023	Water	10/24/23 10:25	10/25/23 13:44
550-209609-12	CH-CCR-TWX5-1023	Water	10/24/23 10:25	10/25/23 13:44
550-209609-13	CH-CCR-TWX7-1023	Water	10/24/23 10:41	10/25/23 13:44
550-209609-14	CH-CCR-TWX7-1023	Water	10/24/23 10:41	10/25/23 13:44
550-209609-15	CH-CCR-TWX9-1023	Water	10/24/23 15:41	10/25/23 13:44
550-209609-16	CH-CCR-TWX9-1023	Water	10/24/23 15:41	10/25/23 13:44
550-209609-17	CH-CCR-TWX10-1023	Water	10/24/23 15:59	10/25/23 13:44
550-209609-18	CH-CCR-TWX10-1023	Water	10/24/23 15:59	10/25/23 13:44
550-209609-19	CH-CCR-EB01-1023	Water	10/25/23 08:15	10/25/23 13:44
550-209609-20	CH-CCR-EB01-1023	Water	10/25/23 08:15	10/25/23 13:44

Detection Summary

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-MW78A-1023 — Lab Sample ID: 550-209609-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2700	D2	200		mg/L	100		300.0	Total/NA
Sulfate	2300	D2	200		mg/L	100		300.0	Total/NA
Boron	0.42		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	750		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	130		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	5.6		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.0		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1700	B1	5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.24		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00086	M2	0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0022	M2	0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0014	M2 T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.00077	M2	0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.36		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7900		100		mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.3	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW78A-1023 — Lab Sample ID: 550-209609-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.11		0.10		mg/L	1		200.7	Dissolved
Manganese	5.7		0.010		mg/L	1		200.7	Dissolved
Arsenic	0.80		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	0.63		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.62		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.63		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-BAPTD-1023 — Lab Sample ID: 550-209609-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2400	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.5		0.40		mg/L	1		300.0	Total/NA
Sulfate	3100	D2	200		mg/L	100		300.0	Total/NA
Boron	4.9		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	700	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.56		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	260	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	3.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	16		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1700	B1 M3	5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.23		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00079		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0023		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00052		0.00010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0013		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.00077		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0044	T5	0.00050		mg/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-BAPTD-1023 (Continued) — Lab Sample ID: 550-209609-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Selenium	0.0013		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.088		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	150		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	150		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8700		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.1		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-BAPTD-1023 — Lab Sample ID: 550-209609-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.0		0.010		mg/L	1		200.7	Dissolved
Arsenic	0.70		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	1.3		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.2		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-Petroglyph-1023 — Lab Sample ID: 550-209609-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2200	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.9		0.40		mg/L	1		300.0	Total/NA
Sulfate	3000	D2	200		mg/L	100		300.0	Total/NA
Boron	4.0		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	700		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.23		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	250		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	26		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1600	B1	5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.21		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00086		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0053		0.00050		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0025		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0094	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.089		0.050		mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.31		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	85		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	85		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8100		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.8	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.2		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.2		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.2		0.50		mg/L	1		SM 5310B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-Petroglyph-1023 — Lab Sample ID: 550-209609-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	1.1		0.010		mg/L	1		200.7	Dissolved
Arsenic	0.64		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.4		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TannerWash-1023 — Lab Sample ID: 550-209609-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2100	D2	200		mg/L	100		300.0	Total/NA
Fluoride	32		4.0		mg/L	10		300.0	Total/NA
Sulfate	3000	D2	200		mg/L	100		300.0	Total/NA
Boron	4.2		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	690		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.75		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	280		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.8		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	18		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1500	B1	5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.20		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0012		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0020		0.00050		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0024		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0037	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.079		0.050		mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.14		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	80		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	80		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7700		100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	0.92		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	0.92		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	0.92		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TannerWash-1023 — Lab Sample ID: 550-209609-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	1.5		0.010		mg/L	1		200.7	Dissolved
Arsenic	0.75		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	2.4		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.0		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX3-1023 — Lab Sample ID: 550-209609-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2100	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.8		0.40		mg/L	1		300.0	Total/NA
Sulfate	3000	D2	200		mg/L	100		300.0	Total/NA
Boron	3.9		0.050		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

Client Sample ID: CH-CCR-TWX3-1023 (Continued) — Lab Sample ID: 550-209609-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Calcium	680		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.33		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	240		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	17		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1400	B1	5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.22		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00087		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0020		0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0038		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0025		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0070	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.29		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	75		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	75		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7700		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.8		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	0.78		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.8		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX3-1023 — Lab Sample ID: 550-209609-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.8		0.010		mg/L	1		200.7	Dissolved
Arsenic	0.78		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	2.5		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	0.95		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.92		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.95		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX5-1023 — Lab Sample ID: 550-209609-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.8		0.40		mg/L	1		300.0	Total/NA
Sulfate	2900	D2	200		mg/L	100		300.0	Total/NA
Boron	4.0		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	690		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.55		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	250		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	17		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1500	B1	5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.21		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0053		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.010		0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.022		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.014		0.0025		mg/L	5		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-TWX5-1023 (Continued) — Lab Sample ID: 550-209609-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lead	0.0027		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.039	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.33		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	76		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	76		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7700		100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	0.92		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	0.94		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	0.92		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX5-1023 — Lab Sample ID: 550-209609-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.9		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.8		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	13		2.5		ug/L	5		200.8 LL	Dissolved
Dissolved Organic Carbon	0.81		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.81		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.81		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX7-1023 — Lab Sample ID: 550-209609-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2100	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.7		0.40		mg/L	1		300.0	Total/NA
Sulfate	2900	D2	200		mg/L	100		300.0	Total/NA
Boron	3.9		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	690		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.21		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	240		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	3.2		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	16		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1500	B1	5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.21		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0043		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0042		0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.022		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.013		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.042	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.32		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	76		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	76		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7700		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	0.78		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	0.78		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	0.78		0.50		mg/L	1		SM 5310B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-TWX7-1023 — Lab Sample ID: 550-209609-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.1		0.010		mg/L	1		200.7	Dissolved
Arsenic	4.0		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	13		2.5		ug/L	5		200.8 LL	Dissolved
Dissolved Organic Carbon	0.91		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.91		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.91		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX9-1023 — Lab Sample ID: 550-209609-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2600	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.3		0.40		mg/L	1		300.0	Total/NA
Sulfate	2900	D2	200		mg/L	100		300.0	Total/NA
Boron	2.7		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	770		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	3.6		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	230		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	6.8		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	14		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1900	B1	5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.33		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0083		0.0025		mg/L	5		200.8 LL	Total/NA
Cadmium	0.00050		0.00050		mg/L	5		200.8 LL	Total/NA
Chromium	0.94		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.024		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.18	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.080		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8600		100		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.1		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX9-1023 — Lab Sample ID: 550-209609-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.58		0.10		mg/L	1		200.7	Dissolved
Manganese	7.8		0.010		mg/L	1		200.7	Dissolved
Arsenic	6.0		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	11		2.5		ug/L	5		200.8 LL	Dissolved
Dissolved Organic Carbon	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX10-1023 — Lab Sample ID: 550-209609-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3100	D2	200		mg/L	100		300.0	Total/NA
Fluoride	0.45		0.40		mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: CH-CCR-TWX10-1023 (Continued)

Lab Sample ID: 550-209609-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Sulfate	2800	D2	200		mg/L	100		300.0	Total/NA
Boron	0.37		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	750		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.29		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	170		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.075		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.0		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100	B1	5.0		mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	0.49		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0034		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0097		0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.015		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.015		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.013	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Nitrate Nitrite as N	0.11		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	74		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	74		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	9300		100		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.3		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.3		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.3		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX10-1023

Lab Sample ID: 550-209609-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.021		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.5		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	15		2.5		ug/L	5		200.8 LL	Dissolved
Dissolved Organic Carbon	1.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.4		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-EB01-1023

Lab Sample ID: 550-209609-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0029		0.0025		mg/L	5		200.8 LL	Total/NA
pH	5.9	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-EB01-1023

Lab Sample ID: 550-209609-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.2		2.5		ug/L	5		200.8 LL	Dissolved

This Detection Summary does not include radiochemical test results.

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-MW78A-1023

Date Collected: 10/23/23 13:00
Date Received: 10/25/23 13:44

Lab Sample ID: 550-209609-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2700**	**D2**	200		mg/L			10/30/23 14:22	100
Fluoride	ND		0.40		mg/L			10/30/23 13:54	1
Sulfate	**2300**	**D2**	200		mg/L			10/30/23 14:22	100

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			10/30/23 13:54	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:06	1
Boron	**0.42**		0.050		mg/L		10/26/23 05:56	10/31/23 01:06	1
Calcium	**750**		2.0		mg/L		10/26/23 05:56	10/31/23 01:06	1
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 01:06	1
Magnesium	**130**		2.0		mg/L		10/26/23 05:56	10/31/23 01:06	1
Manganese	**5.6**		0.010		mg/L		10/26/23 05:56	10/31/23 01:06	1
Potassium	**9.0**		0.50		mg/L		10/26/23 05:56	10/31/23 01:06	1
Sodium	**1700**	**B1**	5.0		mg/L		10/26/23 05:56	11/06/23 13:25	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.24**		0.10		mg/L		11/01/23 07:39	11/02/23 13:41	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	M2	0.0010		mg/L		10/26/23 05:13	10/27/23 19:20	1
Arsenic	**0.00086**	**M2**	0.00050		mg/L		10/26/23 05:13	10/27/23 19:20	1
Barium	**0.0022**	**M2**	0.00050		mg/L		10/26/23 05:13	10/27/23 19:20	1
Cadmium	ND	M2	0.00010		mg/L		10/26/23 05:13	10/27/23 19:20	1
Chromium	ND	M2	0.0010		mg/L		10/26/23 05:13	10/27/23 19:20	1
Cobalt	ND	M2	0.00050		mg/L		10/26/23 05:13	10/27/23 19:20	1
Lead	ND	M2	0.00050		mg/L		10/26/23 05:13	10/27/23 19:20	1
Molybdenum	**0.0014**	**M2 T5**	0.00050		mg/L		10/26/23 05:13	10/27/23 19:20	1
Selenium	**0.00077**	**M2**	0.00050		mg/L		10/26/23 05:13	10/27/23 19:20	1
Thallium	ND	M2	0.00010		mg/L		10/26/23 05:13	10/27/23 19:20	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:45	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.36**		0.050		mg/L			11/01/23 13:26	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/31/23 16:35	1
Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			11/01/23 12:20	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 12:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			11/01/23 12:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:20	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:20	1

Client Sample ID: CH-CCR-MW78A-1023

Lab Sample ID: 550-209609-1

Date Collected: 10/23/23 13:00
Matrix: Water
Date Received: 10/25/23 13:44

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	7900		100		mg/L			10/27/23 12:51	1
pH (SM 4500 H+ B)	7.2	H5	1.7		SU			10/29/23 12:54	1
Temperature (SM 4500 H+ B)	10.3	H5 T5	0.1		Degrees C			10/29/23 12:54	1

Client Sample ID: CH-CCR-MW78A-1023

Lab Sample ID: 550-209609-2

Date Collected: 10/23/23 13:00
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.11		0.10		mg/L		10/26/23 05:56	10/31/23 01:08	1
Manganese	5.7		0.010		mg/L		10/26/23 05:56	10/31/23 01:08	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.80		0.50		ug/L		10/26/23 05:13	10/27/23 19:22	1
Cobalt	ND		0.50		ug/L		10/26/23 05:13	10/27/23 19:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	0.63		0.50		mg/L			11/08/23 22:29	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	0.62		0.50		mg/L			11/08/23 22:29	1
Dissolved Organic Carbon - Quad (SM 5310B)	0.63		0.50		mg/L			11/08/23 22:29	1

Client Sample ID: CH-CCR-BAPTD-1023

Lab Sample ID: 550-209609-3

Date Collected: 10/24/23 08:42
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2400	D2	200		mg/L			10/30/23 15:18	100
Fluoride	2.5		0.40		mg/L			10/30/23 14:50	1
Sulfate	3100	D2	200		mg/L			10/30/23 15:18	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:00	1
Boron	4.9		0.050		mg/L		10/26/23 05:56	10/31/23 01:00	1
Calcium	700	M3	2.0		mg/L		10/26/23 05:56	10/31/23 01:00	1
Iron	0.56		0.10		mg/L		10/26/23 05:56	10/31/23 01:00	1
Magnesium	260	M3	2.0		mg/L		10/26/23 05:56	10/31/23 01:00	1
Manganese	3.0		0.010		mg/L		10/26/23 05:56	10/31/23 01:00	1
Potassium	16		0.50		mg/L		10/26/23 05:56	10/31/23 01:00	1
Sodium	1700	B1 M3	5.0		mg/L		10/26/23 05:56	11/06/23 13:22	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.23		0.10		mg/L		11/01/23 07:39	11/02/23 13:44	2

Client Sample ID: CH-CCR-BAPTD-1023

Lab Sample ID: 550-209609-3

Date Collected: 10/24/23 08:42
Matrix: Water
Date Received: 10/25/23 13:44

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/26/23 05:13	10/27/23 19:24	1
Arsenic	**0.00079**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:24	1
Barium	**0.0023**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:24	1
Cadmium	**0.00052**		0.00010		mg/L		10/26/23 05:13	10/27/23 19:24	1
Chromium	ND		0.0010		mg/L		10/26/23 05:13	10/27/23 19:24	1
Cobalt	**0.0013**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:24	1
Lead	**0.00077**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:24	1
Molybdenum	**0.0044**	**T5**	0.00050		mg/L		10/26/23 05:13	10/27/23 19:24	1
Selenium	**0.0013**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:24	1
Thallium	ND		0.00010		mg/L		10/26/23 05:13	10/27/23 19:24	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.088**		0.050		mg/L			11/01/23 13:31	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			10/31/23 16:37	1
Alkalinity as CaCO3 (SM 2320B)	**150**		6.0		mg/L			11/01/23 12:34	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 12:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**150**		6.0		mg/L			11/01/23 12:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:34	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:34	1
Total Dissolved Solids (SM 2540C)	**8700**		100		mg/L			10/27/23 15:46	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			10/29/23 12:56	1
Temperature (SM 4500 H+ B)	**9.9**	**H5 T5**	0.1		Degrees C			10/29/23 12:56	1
Total Organic Carbon (SM 5310B)	**1.1**		0.50		mg/L			11/14/23 01:15	1
Total Organic Carbon - Duplicates (SM 5310B)	**1.1**		0.50		mg/L			11/14/23 01:15	1
Total Organic Carbon - Quad (SM 5310B)	**1.1**		0.50		mg/L			11/14/23 01:15	1

Client Sample ID: CH-CCR-BAPTD-1023

Lab Sample ID: 550-209609-4

Date Collected: 10/24/23 08:42
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 01:03	1
Manganese	**3.0**		0.010		mg/L		10/26/23 05:56	10/31/23 01:03	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.70**		0.50		ug/L		10/26/23 05:13	10/27/23 19:26	1
Cobalt	**1.3**		0.50		ug/L		10/26/23 05:13	10/27/23 19:26	1

Client Sample ID: CH-CCR-BAPTD-1023

Lab Sample ID: 550-209609-4

Date Collected: 10/24/23 08:42
Matrix: Water
Date Received: 10/25/23 13:44

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.2		0.50		mg/L			11/08/23 22:49	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.2		0.50		mg/L			11/08/23 22:49	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.2		0.50		mg/L			11/08/23 22:49	1

Client Sample ID: CH-CCR-Petroglyph-1023

Lab Sample ID: 550-209609-5

Date Collected: 10/24/23 09:09
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2200	D2	200		mg/L			10/30/23 16:14	100
Fluoride	2.9		0.40		mg/L			10/30/23 15:46	1
Sulfate	3000	D2	200		mg/L			10/30/23 16:14	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:11	1
Boron	4.0		0.050		mg/L		10/26/23 05:56	10/31/23 01:11	1
Calcium	700		2.0		mg/L		10/26/23 05:56	10/31/23 01:11	1
Iron	0.23		0.10		mg/L		10/26/23 05:56	10/31/23 01:11	1
Magnesium	250		2.0		mg/L		10/26/23 05:56	10/31/23 01:11	1
Manganese	1.1		0.010		mg/L		10/26/23 05:56	10/31/23 01:11	1
Potassium	26		0.50		mg/L		10/26/23 05:56	10/31/23 01:11	1
Sodium	1600	B1	5.0		mg/L		10/26/23 05:56	11/06/23 13:28	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.21		0.10		mg/L		11/01/23 07:39	11/02/23 13:46	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/26/23 05:13	10/27/23 19:28	1
Arsenic	0.00086		0.00050		mg/L		10/26/23 05:13	10/27/23 19:28	1
Barium	0.0053		0.00050		mg/L		10/26/23 05:13	10/27/23 19:28	1
Cadmium	ND		0.00010		mg/L		10/26/23 05:13	10/27/23 19:28	1
Chromium	ND		0.0010		mg/L		10/26/23 05:13	10/27/23 19:28	1
Cobalt	0.0025		0.00050		mg/L		10/26/23 05:13	10/27/23 19:28	1
Lead	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:28	1
Molybdenum	0.0094	T5	0.00050		mg/L		10/26/23 05:13	10/27/23 19:28	1
Selenium	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:28	1
Thallium	ND		0.00010		mg/L		10/26/23 05:13	10/27/23 19:28	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.089		0.050		mg/L			11/01/23 13:32	1

Client Sample ID: CH-CCR-Petroglyph-1023

Lab Sample ID: 550-209609-5

Date Collected: 10/24/23 09:09
Matrix: Water
Date Received: 10/25/23 13:44

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N (EPA 353.2)	0.31		0.10		mg/L			10/31/23 16:51	1
Alkalinity as CaCO3 (SM 2320B)	85		6.0		mg/L			11/01/23 12:41	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 12:41	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	85		6.0		mg/L			11/01/23 12:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:41	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:41	1
Total Dissolved Solids (SM 2540C)	8100		100		mg/L			10/27/23 15:46	1
pH (SM 4500 H+ B)	7.4	H5	1.7		SU			10/29/23 12:57	1
Temperature (SM 4500 H+ B)	9.8	H5 T5	0.1		Degrees C			10/29/23 12:57	1
Total Organic Carbon (SM 5310B)	1.2		0.50		mg/L			11/14/23 01:36	1
Total Organic Carbon - Duplicates (SM 5310B)	1.2		0.50		mg/L			11/14/23 01:36	1
Total Organic Carbon - Quad (SM 5310B)	1.2		0.50		mg/L			11/14/23 01:36	1

Client Sample ID: CH-CCR-Petroglyph-1023

Lab Sample ID: 550-209609-6

Date Collected: 10/24/23 09:09
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 01:14	1
Manganese	1.1		0.010		mg/L		10/26/23 05:56	10/31/23 01:14	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.64		0.50		ug/L		10/26/23 05:13	10/27/23 19:30	1
Cobalt	ND		0.50		ug/L		10/26/23 05:13	10/27/23 19:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.4		0.50		mg/L			11/08/23 23:06	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.4		0.50		mg/L			11/08/23 23:06	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.4		0.50		mg/L			11/08/23 23:06	1

Client Sample ID: CH-CCR-TannerWash-1023

Lab Sample ID: 550-209609-7

Date Collected: 10/24/23 09:28
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100	D2	200		mg/L			10/30/23 18:34	100
Fluoride	32		4.0		mg/L			10/30/23 18:06	10
Sulfate	3000	D2	200		mg/L			10/30/23 18:34	100

Client Sample ID: CH-CCR-TannerWash-1023

Date Collected: 10/24/23 09:28
Date Received: 10/25/23 13:44

Lab Sample ID: 550-209609-7

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:17	1
Boron	**4.2**		0.050		mg/L		10/26/23 05:56	10/31/23 01:17	1
Calcium	**690**		2.0		mg/L		10/26/23 05:56	10/31/23 01:17	1
Iron	**0.75**		0.10		mg/L		10/26/23 05:56	10/31/23 01:17	1
Magnesium	**280**		2.0		mg/L		10/26/23 05:56	10/31/23 01:17	1
Manganese	**1.8**		0.010		mg/L		10/26/23 05:56	10/31/23 01:17	1
Potassium	**18**		0.50		mg/L		10/26/23 05:56	10/31/23 01:17	1
Sodium	**1500**	**B1**	5.0		mg/L		10/26/23 05:56	11/06/23 13:31	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.20**		0.10		mg/L		11/01/23 07:39	11/02/23 13:48	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/26/23 05:13	10/27/23 19:32	1
Arsenic	**0.0012**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:32	1
Barium	**0.0020**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:32	1
Cadmium	ND		0.00010		mg/L		10/26/23 05:13	10/27/23 19:32	1
Chromium	ND		0.0010		mg/L		10/26/23 05:13	10/27/23 19:32	1
Cobalt	**0.0024**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:32	1
Lead	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:32	1
Molybdenum	**0.0037**	**T5**	0.00050		mg/L		10/26/23 05:13	10/27/23 19:32	1
Selenium	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:32	1
Thallium	ND		0.00010		mg/L		10/26/23 05:13	10/27/23 19:32	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:47	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.079**		0.050		mg/L			11/01/23 13:34	1
Nitrate Nitrite as N (EPA 353.2)	**0.14**		0.10		mg/L			11/01/23 14:13	1
Alkalinity as CaCO3 (SM 2320B)	**80**		6.0		mg/L			11/01/23 12:47	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 12:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**80**		6.0		mg/L			11/01/23 12:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:47	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:47	1
Total Dissolved Solids (SM 2540C)	**7700**		100		mg/L			10/27/23 15:46	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			10/29/23 12:58	1
Temperature (SM 4500 H+ B)	**10.2**	**H5 T5**	0.1		Degrees C			10/29/23 12:58	1
Total Organic Carbon (SM 5310B)	**0.92**		0.50		mg/L			11/14/23 01:57	1
Total Organic Carbon - Duplicates (SM 5310B)	**0.92**		0.50		mg/L			11/14/23 01:57	1
Total Organic Carbon - Quad (SM 5310B)	**0.92**		0.50		mg/L			11/14/23 01:57	1

Client Sample ID: CH-CCR-TannerWash-1023

Lab Sample ID: 550-209609-8

Date Collected: 10/24/23 09:28
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 01:20	1
Manganese	**1.5**		0.010		mg/L		10/26/23 05:56	10/31/23 01:20	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.75**		0.50		ug/L		10/26/23 05:13	10/27/23 19:34	1
Cobalt	**2.4**		0.50		ug/L		10/26/23 05:13	10/27/23 19:34	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.0**		0.50		mg/L			11/08/23 23:27	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.0**		0.50		mg/L			11/08/23 23:27	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.0**		0.50		mg/L			11/08/23 23:27	1

Client Sample ID: CH-CCR-TWX3-1023

Lab Sample ID: 550-209609-9

Date Collected: 10/24/23 10:07
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2100**	**D2**	200		mg/L			10/30/23 19:30	100
Fluoride	**2.8**		0.40		mg/L			10/30/23 19:02	1
Sulfate	**3000**	**D2**	200		mg/L			10/30/23 19:30	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:23	1
Boron	**3.9**		0.050		mg/L		10/26/23 05:56	10/31/23 01:23	1
Calcium	**680**		2.0		mg/L		10/26/23 05:56	10/31/23 01:23	1
Iron	**0.33**		0.10		mg/L		10/26/23 05:56	10/31/23 01:23	1
Magnesium	**240**		2.0		mg/L		10/26/23 05:56	10/31/23 01:23	1
Manganese	**4.0**		0.010		mg/L		10/26/23 05:56	10/31/23 01:23	1
Potassium	**17**		0.50		mg/L		10/26/23 05:56	10/31/23 01:23	1
Sodium	**1400**	**B1**	5.0		mg/L		10/26/23 05:56	11/06/23 13:34	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.22**		0.10		mg/L		11/01/23 07:39	11/02/23 13:51	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/26/23 05:13	10/27/23 19:36	1
Arsenic	**0.00087**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:36	1
Barium	**0.0020**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:36	1
Cadmium	ND		0.00010		mg/L		10/26/23 05:13	10/27/23 19:36	1
Chromium	**0.0038**		0.0010		mg/L		10/26/23 05:13	10/27/23 19:36	1
Cobalt	**0.0025**		0.00050		mg/L		10/26/23 05:13	10/27/23 19:36	1
Lead	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:36	1
Molybdenum	**0.0070**	**T5**	0.00050		mg/L		10/26/23 05:13	10/27/23 19:36	1

Client Sample ID: CH-CCR-TWX3-1023

Lab Sample ID: 550-209609-9

Date Collected: 10/24/23 10:07
Matrix: Water
Date Received: 10/25/23 13:44

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:36	1
Thallium	ND		0.00010		mg/L		10/26/23 05:13	10/27/23 19:36	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:49	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.29**		0.050		mg/L			11/01/23 13:35	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			11/01/23 14:15	1
Alkalinity as CaCO3 (SM 2320B)	**75**		6.0		mg/L			11/01/23 12:54	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 12:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**75**		6.0		mg/L			11/01/23 12:54	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:54	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 12:54	1
Total Dissolved Solids (SM 2540C)	**7700**		100		mg/L			10/27/23 15:46	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			10/29/23 12:59	1
Temperature (SM 4500 H+ B)	**10.5**	**H5 T5**	0.1		Degrees C			10/29/23 12:59	1
Total Organic Carbon (SM 5310B)	**1.8**		0.50		mg/L			11/14/23 02:13	1
Total Organic Carbon - Duplicates (SM 5310B)	**0.78**		0.50		mg/L			11/14/23 02:13	1
Total Organic Carbon - Quad (SM 5310B)	**1.8**		0.50		mg/L			11/14/23 02:13	1

Client Sample ID: CH-CCR-TWX3-1023

Lab Sample ID: 550-209609-10

Date Collected: 10/24/23 10:07
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 01:26	1
Manganese	**3.8**		0.010		mg/L		10/26/23 05:56	10/31/23 01:26	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.78**		0.50		ug/L		10/26/23 05:13	10/27/23 19:38	1
Cobalt	**2.5**		0.50		ug/L		10/26/23 05:13	10/27/23 19:38	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.95**		0.50		mg/L			11/13/23 16:43	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.92**		0.50		mg/L			11/13/23 16:43	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.95**		0.50		mg/L			11/13/23 16:43	1

Client Sample ID: CH-CCR-TWX5-1023

Date Collected: 10/24/23 10:25
Date Received: 10/25/23 13:44

Lab Sample ID: 550-209609-11

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**	**D2**	200		mg/L			10/30/23 20:26	100
Fluoride	**2.8**		0.40		mg/L			10/30/23 19:58	1
Sulfate	**2900**	**D2**	200		mg/L			10/30/23 20:26	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:34	1
Boron	**4.0**		0.050		mg/L		10/26/23 05:56	10/31/23 01:34	1
Calcium	**690**		2.0		mg/L		10/26/23 05:56	10/31/23 01:34	1
Iron	**0.55**		0.10		mg/L		10/26/23 05:56	10/31/23 01:34	1
Magnesium	**250**		2.0		mg/L		10/26/23 05:56	10/31/23 01:34	1
Manganese	**4.0**		0.010		mg/L		10/26/23 05:56	10/31/23 01:34	1
Potassium	**17**		0.50		mg/L		10/26/23 05:56	10/31/23 01:34	1
Sodium	**1500**	**B1**	5.0		mg/L		10/26/23 05:56	11/06/23 13:37	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.21**		0.10		mg/L		11/01/23 07:39	11/02/23 13:53	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/26/23 05:13	11/03/23 14:55	5
Arsenic	**0.0053**		0.0025		mg/L		10/26/23 05:13	11/03/23 14:55	5
Barium	**0.010**		0.0025		mg/L		10/26/23 05:13	11/03/23 14:55	5
Cadmium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:55	5
Chromium	**0.022**		0.0050		mg/L		10/26/23 05:13	11/03/23 14:55	5
Cobalt	**0.014**		0.0025		mg/L		10/26/23 05:13	11/03/23 14:55	5
Lead	**0.0027**		0.0025		mg/L		10/26/23 05:13	11/03/23 14:55	5
Molybdenum	**0.039**	**T5**	0.0025		mg/L		10/26/23 05:13	11/03/23 14:55	5
Selenium	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 14:55	5
Thallium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:55	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.33**		0.050		mg/L			11/01/23 13:37	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			11/01/23 14:17	1
Alkalinity as CaCO3 (SM 2320B)	**76**		6.0		mg/L			11/01/23 13:00	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 13:00	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**76**		6.0		mg/L			11/01/23 13:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:00	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:00	1
Total Dissolved Solids (SM 2540C)	**7700**		100		mg/L			10/27/23 15:46	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			10/29/23 13:00	1
Temperature (SM 4500 H+ B)	**11.5**	**H5 T5**	0.1		Degrees C			10/29/23 13:00	1

Client Sample ID: CH-CCR-TWX5-1023

Lab Sample ID: 550-209609-11

Date Collected: 10/24/23 10:25
Matrix: Water
Date Received: 10/25/23 13:44

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (SM 5310B)	0.92		0.50		mg/L			11/14/23 02:34	1
Total Organic Carbon - Duplicates (SM 5310B)	0.94		0.50		mg/L			11/14/23 02:34	1
Total Organic Carbon - Quad (SM 5310B)	0.92		0.50		mg/L			11/14/23 02:34	1

Client Sample ID: CH-CCR-TWX5-1023

Lab Sample ID: 550-209609-12

Date Collected: 10/24/23 10:25
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 01:37	1
Manganese	3.9		0.010		mg/L		10/26/23 05:56	10/31/23 01:37	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.8		2.5		ug/L		10/26/23 05:13	11/03/23 14:57	5
Cobalt	13		2.5		ug/L		10/26/23 05:13	11/03/23 14:57	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	0.81		0.50		mg/L			11/13/23 17:45	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	0.81		0.50		mg/L			11/13/23 17:45	1
Dissolved Organic Carbon - Quad (SM 5310B)	0.81		0.50		mg/L			11/13/23 17:45	1

Client Sample ID: CH-CCR-TWX7-1023

Lab Sample ID: 550-209609-13

Date Collected: 10/24/23 10:41
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100	D2	200		mg/L			10/30/23 21:22	100
Fluoride	2.7		0.40		mg/L			10/30/23 20:54	1
Sulfate	2900	D2	200		mg/L			10/30/23 21:22	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:40	1
Boron	3.9		0.050		mg/L		10/26/23 05:56	10/31/23 01:40	1
Calcium	690		2.0		mg/L		10/26/23 05:56	10/31/23 01:40	1
Iron	0.21		0.10		mg/L		10/26/23 05:56	10/31/23 01:40	1
Magnesium	240		2.0		mg/L		10/26/23 05:56	10/31/23 01:40	1
Manganese	3.2		0.010		mg/L		10/26/23 05:56	10/31/23 01:40	1
Potassium	16		0.50		mg/L		10/26/23 05:56	10/31/23 01:40	1
Sodium	1500	B1	5.0		mg/L		10/26/23 05:56	11/06/23 13:39	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.21		0.10		mg/L		11/01/23 07:39	11/02/23 13:56	2

Client Sample ID: CH-CCR-TWX7-1023

Lab Sample ID: 550-209609-13

Date Collected: 10/24/23 10:41
Matrix: Water
Date Received: 10/25/23 13:44

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/26/23 05:13	11/03/23 14:59	5
Arsenic	**0.0043**		0.0025		mg/L		10/26/23 05:13	11/03/23 14:59	5
Barium	**0.0042**		0.0025		mg/L		10/26/23 05:13	11/03/23 14:59	5
Cadmium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:59	5
Chromium	**0.022**		0.0050		mg/L		10/26/23 05:13	11/03/23 14:59	5
Cobalt	**0.013**		0.0025		mg/L		10/26/23 05:13	11/03/23 14:59	5
Lead	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 14:59	5
Molybdenum	**0.042**	**T5**	0.0025		mg/L		10/26/23 05:13	11/03/23 14:59	5
Selenium	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 14:59	5
Thallium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:59	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:53	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.32**		0.050		mg/L			11/01/23 13:38	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			11/01/23 14:19	1
Alkalinity as CaCO3 (SM 2320B)	**76**		6.0		mg/L			11/01/23 13:07	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 13:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**76**		6.0		mg/L			11/01/23 13:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:07	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:07	1
Total Dissolved Solids (SM 2540C)	**7700**		100		mg/L			10/27/23 15:46	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			10/29/23 13:01	1
Temperature (SM 4500 H+ B)	**11.6**	**H5 T5**	0.1		Degrees C			10/29/23 13:01	1
Total Organic Carbon (SM 5310B)	**0.78**		0.50		mg/L			11/14/23 02:55	1
Total Organic Carbon - Duplicates (SM 5310B)	**0.78**		0.50		mg/L			11/14/23 02:55	1
Total Organic Carbon - Quad (SM 5310B)	**0.78**		0.50		mg/L			11/14/23 02:55	1

Client Sample ID: CH-CCR-TWX7-1023

Lab Sample ID: 550-209609-14

Date Collected: 10/24/23 10:41
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 01:43	1
Manganese	**3.1**		0.010		mg/L		10/26/23 05:56	10/31/23 01:43	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.0**		2.5		ug/L		10/26/23 05:13	11/03/23 15:01	5
Cobalt	**13**		2.5		ug/L		10/26/23 05:13	11/03/23 15:01	5

Client Sample ID: CH-CCR-TWX7-1023

Lab Sample ID: 550-209609-14

Date Collected: 10/24/23 10:41
Matrix: Water
Date Received: 10/25/23 13:44

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	0.91		0.50		mg/L			11/13/23 18:02	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	0.91		0.50		mg/L			11/13/23 18:02	1
Dissolved Organic Carbon - Quad (SM 5310B)	0.91		0.50		mg/L			11/13/23 18:02	1

Client Sample ID: CH-CCR-TWX9-1023

Lab Sample ID: 550-209609-15

Date Collected: 10/24/23 15:41
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2600	D2	200		mg/L			10/30/23 23:42	100
Fluoride	1.3		0.40		mg/L			10/30/23 21:50	1
Sulfate	2900	D2	200		mg/L			10/30/23 23:42	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:45	1
Boron	2.7		0.050		mg/L		10/26/23 05:56	10/31/23 01:45	1
Calcium	770		2.0		mg/L		10/26/23 05:56	10/31/23 01:45	1
Iron	3.6		0.10		mg/L		10/26/23 05:56	10/31/23 01:45	1
Magnesium	230		2.0		mg/L		10/26/23 05:56	10/31/23 01:45	1
Manganese	6.8		0.010		mg/L		10/26/23 05:56	10/31/23 01:45	1
Potassium	14		0.50		mg/L		10/26/23 05:56	10/31/23 01:45	1
Sodium	1900	B1	5.0		mg/L		10/26/23 05:56	11/06/23 13:42	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.33		0.10		mg/L		11/01/23 07:39	11/02/23 13:58	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/26/23 05:13	11/03/23 15:03	5
Arsenic	0.0083		0.0025		mg/L		10/26/23 05:13	11/03/23 15:03	5
Barium	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 15:03	5
Cadmium	0.00050		0.00050		mg/L		10/26/23 05:13	11/03/23 15:03	5
Chromium	0.94		0.0050		mg/L		10/26/23 05:13	11/03/23 15:03	5
Cobalt	0.024		0.0025		mg/L		10/26/23 05:13	11/03/23 15:03	5
Lead	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 15:03	5
Molybdenum	0.18	T5	0.0025		mg/L		10/26/23 05:13	11/03/23 15:03	5
Selenium	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 15:03	5
Thallium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 15:03	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:55	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.080		0.050		mg/L			11/01/23 13:40	1

Client Sample ID: CH-CCR-TWX9-1023

Lab Sample ID: 550-209609-15

Date Collected: 10/24/23 15:41
Matrix: Water
Date Received: 10/25/23 13:44

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			11/01/23 14:33	1
Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			11/01/23 13:13	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 13:13	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			11/01/23 13:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:13	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:13	1
Total Dissolved Solids (SM 2540C)	**8600**		100		mg/L			10/27/23 15:46	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			10/29/23 13:02	1
Temperature (SM 4500 H+ B)	**12.2**	**H5 T5**	0.1		Degrees C			10/29/23 13:02	1
Total Organic Carbon (SM 5310B)	**1.1**		0.50		mg/L			11/14/23 03:11	1
Total Organic Carbon - Duplicates (SM 5310B)	**1.1**		0.50		mg/L			11/14/23 03:11	1
Total Organic Carbon - Quad (SM 5310B)	**1.1**		0.50		mg/L			11/14/23 03:11	1

Client Sample ID: CH-CCR-TWX9-1023

Lab Sample ID: 550-209609-16

Date Collected: 10/24/23 15:41
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.58**		0.10		mg/L		10/26/23 05:56	10/31/23 01:48	1
Manganese	**7.8**		0.010		mg/L		10/26/23 05:56	10/31/23 01:48	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.0**		2.5		ug/L		10/26/23 05:13	11/03/23 15:54	5
Cobalt	**11**		2.5		ug/L		10/26/23 05:13	11/03/23 15:54	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.1**		0.50		mg/L			11/13/23 18:18	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.1**		0.50		mg/L			11/13/23 18:18	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.1**		0.50		mg/L			11/13/23 18:18	1

Client Sample ID: CH-CCR-TWX10-1023

Lab Sample ID: 550-209609-17

Date Collected: 10/24/23 15:59
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3100**	**D2**	200		mg/L			10/31/23 00:38	100
Fluoride	**0.45**		0.40		mg/L			10/31/23 00:10	1
Sulfate	**2800**	**D2**	200		mg/L			10/31/23 00:38	100

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-TWX10-1023

Date Collected: 10/24/23 15:59
Date Received: 10/25/23 13:44

Lab Sample ID: 550-209609-17

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:51	1
Boron	**0.37**		0.050		mg/L		10/26/23 05:56	10/31/23 01:51	1
Calcium	**750**		2.0		mg/L		10/26/23 05:56	10/31/23 01:51	1
Iron	**0.29**		0.10		mg/L		10/26/23 05:56	10/31/23 01:51	1
Magnesium	**170**		2.0		mg/L		10/26/23 05:56	10/31/23 01:51	1
Manganese	**0.075**		0.010		mg/L		10/26/23 05:56	10/31/23 01:51	1
Potassium	**6.0**		0.50		mg/L		10/26/23 05:56	10/31/23 01:51	1
Sodium	**2100**	**B1**	5.0		mg/L		10/26/23 05:56	11/06/23 13:45	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.49**		0.10		mg/L		11/01/23 07:39	11/02/23 14:19	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/26/23 05:13	11/03/23 15:56	5
Arsenic	**0.0034**		0.0025		mg/L		10/26/23 05:13	11/03/23 15:56	5
Barium	**0.0097**		0.0025		mg/L		10/26/23 05:13	11/03/23 15:56	5
Cadmium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 15:56	5
Chromium	**0.015**		0.0050		mg/L		10/26/23 05:13	11/03/23 15:56	5
Cobalt	**0.015**		0.0025		mg/L		10/26/23 05:13	11/03/23 15:56	5
Lead	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 15:56	5
Molybdenum	**0.013**	**T5**	0.0025		mg/L		10/26/23 05:13	11/03/23 15:56	5
Selenium	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 15:56	5
Thallium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 15:56	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:57	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			11/01/23 13:41	1
Nitrate Nitrite as N (EPA 353.2)	**0.11**		0.10		mg/L			11/01/23 14:37	1
Alkalinity as CaCO3 (SM 2320B)	**74**		6.0		mg/L			11/01/23 13:20	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 13:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**74**		6.0		mg/L			11/01/23 13:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:20	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:20	1
Total Dissolved Solids (SM 2540C)	**9300**		100		mg/L			10/27/23 15:46	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			10/29/23 13:03	1
Temperature (SM 4500 H+ B)	**11.5**	**H5 T5**	0.1		Degrees C			10/29/23 13:03	1
Total Organic Carbon (SM 5310B)	**1.3**		0.50		mg/L			11/14/23 03:28	1
Total Organic Carbon - Duplicates (SM 5310B)	**1.3**		0.50		mg/L			11/14/23 03:28	1
Total Organic Carbon - Quad (SM 5310B)	**1.3**		0.50		mg/L			11/14/23 03:28	1

Client Sample ID: CH-CCR-TWX10-1023

Lab Sample ID: 550-209609-18

Date Collected: 10/24/23 15:59
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 01:54	1
Manganese	**0.021**		0.010		mg/L		10/26/23 05:56	10/31/23 01:54	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.5**		2.5		ug/L		10/26/23 05:13	11/03/23 15:58	5
Cobalt	**15**		2.5		ug/L		10/26/23 05:13	11/03/23 15:58	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.4**		0.50		mg/L			11/13/23 18:39	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.4**		0.50		mg/L			11/13/23 18:39	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.4**		0.50		mg/L			11/13/23 18:39	1

Client Sample ID: CH-CCR-EB01-1023

Lab Sample ID: 550-209609-19

Date Collected: 10/25/23 08:15
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			10/31/23 05:45	1
Fluoride	ND		0.40		mg/L			10/31/23 05:45	1
Sulfate	ND		2.0		mg/L			10/31/23 05:45	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 01:57	1
Boron	ND		0.050		mg/L		10/26/23 05:56	10/31/23 01:57	1
Calcium	ND		2.0		mg/L		10/26/23 05:56	10/31/23 01:57	1
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 01:57	1
Magnesium	ND		2.0		mg/L		10/26/23 05:56	10/31/23 01:57	1
Manganese	ND		0.010		mg/L		10/26/23 05:56	10/31/23 01:57	1
Potassium	ND		0.50		mg/L		10/26/23 05:56	10/31/23 01:57	1
Sodium	ND		5.0		mg/L		10/26/23 05:56	11/06/23 13:48	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		0.050		mg/L		11/01/23 07:39	11/02/23 14:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		10/26/23 05:13	11/03/23 16:00	5
Arsenic	**0.0029**		0.0025		mg/L		10/26/23 05:13	11/03/23 16:00	5
Barium	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 16:00	5
Cadmium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 16:00	5
Chromium	ND		0.0050		mg/L		10/26/23 05:13	11/03/23 16:00	5
Cobalt	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 16:00	5
Lead	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 16:00	5
Molybdenum	ND	T5	0.0025		mg/L		10/26/23 05:13	11/03/23 16:00	5

Client Sample ID: CH-CCR-EB01-1023

Lab Sample ID: 550-209609-19

Date Collected: 10/25/23 08:15
Matrix: Water
Date Received: 10/25/23 13:44

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.0025		mg/L		10/26/23 05:13	11/03/23 16:00	5
Thallium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 16:00	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:59	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			11/01/23 13:43	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			11/01/23 14:35	1
Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:26	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/01/23 13:26	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:26	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:26	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/01/23 13:26	1
Total Dissolved Solids (SM 2540C)	ND		20		mg/L			10/30/23 09:33	1
pH (SM 4500 H+ B)	**5.9**	**H5**	1.7		SU			10/29/23 13:04	1
Temperature (SM 4500 H+ B)	**12.5**	**H5 T5**	0.1		Degrees C			10/29/23 13:04	1
Total Organic Carbon (SM 5310B)	ND		0.50		mg/L			11/14/23 03:48	1
Total Organic Carbon - Duplicates (SM 5310B)	ND		0.50		mg/L			11/14/23 03:48	1
Total Organic Carbon - Quad (SM 5310B)	ND		0.50		mg/L			11/14/23 03:48	1

Client Sample ID: CH-CCR-EB01-1023

Lab Sample ID: 550-209609-20

Date Collected: 10/25/23 08:15
Matrix: Water
Date Received: 10/25/23 13:44

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 02:00	1
Manganese	ND		0.010		mg/L		10/26/23 05:56	10/31/23 02:00	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.2**		2.5		ug/L		10/26/23 05:13	11/03/23 16:02	5
Cobalt	ND		2.5		ug/L		10/26/23 05:13	11/03/23 16:02	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	ND		0.50		mg/L			11/08/23 23:51	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	ND		0.50		mg/L			11/08/23 23:51	1
Dissolved Organic Carbon - Quad (SM 5310B)	ND		0.50		mg/L			11/08/23 23:51	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-310211/2
Matrix: Water
Analysis Batch: 310211

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			10/30/23 10:10	1
Fluoride	ND		0.40		mg/L			10/30/23 10:10	1
Sulfate	ND		2.0		mg/L			10/30/23 10:10	1

Lab Sample ID: LCS 550-310211/5
Matrix: Water
Analysis Batch: 310211

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	18.9		mg/L		94	90 - 110		
Fluoride			4.00	4.01		mg/L		100	90 - 110		
Sulfate			20.0	19.0		mg/L		95	90 - 110		

Lab Sample ID: LCSD 550-310211/6
Matrix: Water
Analysis Batch: 310211

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	18.9		mg/L		95	90 - 110	0	20
Fluoride			4.00	4.01		mg/L		100	90 - 110	0	20
Sulfate			20.0	19.0		mg/L		95	90 - 110	0	20

Lab Sample ID: 550-209568-B-5 MS ^10
Matrix: Water
Analysis Batch: 310211

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	29		200	221		mg/L		96	80 - 120		
Fluoride	ND		40.0	41.0		mg/L		101	80 - 120		
Sulfate	340		200	514		mg/L		86	80 - 120		

Lab Sample ID: 550-209568-B-5 MSD ^10
Matrix: Water
Analysis Batch: 310211

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	29		200	222		mg/L		97	80 - 120	0	20
Fluoride	ND		40.0	41.3		mg/L		101	80 - 120	1	20
Sulfate	340		200	511		mg/L		85	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-309969/1-A
Matrix: Water
Analysis Batch: 310235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309969

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		10/26/23 05:56	10/31/23 00:46	1
Boron	ND		0.050		mg/L		10/26/23 05:56	10/31/23 00:46	1
Calcium	ND		2.0		mg/L		10/26/23 05:56	10/31/23 00:46	1

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

Lab Sample ID: MB 550-309969/1-A
Matrix: Water
Analysis Batch: 310235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309969

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		10/26/23 05:56	10/31/23 00:46	1
Magnesium	ND		2.0		mg/L		10/26/23 05:56	10/31/23 00:46	1
Manganese	ND		0.010		mg/L		10/26/23 05:56	10/31/23 00:46	1
Potassium	ND		0.50		mg/L		10/26/23 05:56	10/31/23 00:46	1
Sodium	0.696	B1	0.50		mg/L		10/26/23 05:56	10/31/23 00:46	1

Lab Sample ID: LCS 550-309969/2-A
Matrix: Water
Analysis Batch: 310235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309969

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	0.989		mg/L		99	85 - 115		
Boron			1.00	1.02		mg/L		102	85 - 115		
Calcium			21.0	21.8		mg/L		104	85 - 115		
Iron			1.00	0.961		mg/L		96	85 - 115		
Magnesium			21.0	20.8		mg/L		99	85 - 115		
Manganese			1.00	0.968		mg/L		97	85 - 115		
Potassium			20.0	19.8		mg/L		99	85 - 115		
Sodium			20.0	20.5		mg/L		102	85 - 115		

Lab Sample ID: LCSD 550-309969/3-A
Matrix: Water
Analysis Batch: 310235

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309969

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium			1.00	1.01		mg/L		101	85 - 115	2	20
Boron			1.00	1.04		mg/L		104	85 - 115	2	20
Calcium			21.0	22.3		mg/L		106	85 - 115	2	20
Iron			1.00	0.989		mg/L		99	85 - 115	3	20
Magnesium			21.0	21.2		mg/L		101	85 - 115	2	20
Manganese			1.00	0.991		mg/L		99	85 - 115	2	20
Potassium			20.0	20.2		mg/L		101	85 - 115	2	20
Sodium			20.0	20.9		mg/L		105	85 - 115	2	20

Lab Sample ID: 550-209609-3 MS
Matrix: Water
Analysis Batch: 310235

Client Sample ID: CH-CCR-BAPTD-1023
Prep Type: Total/NA
Prep Batch: 309969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium	ND		1.00	1.04		mg/L		104	70 - 130		
Boron	4.9		1.00	5.80	M3	mg/L		86	70 - 130		
Calcium	700	M3	21.0	675	M3	mg/L		-97	70 - 130		
Iron	0.56		1.00	1.55		mg/L		99	70 - 130		
Magnesium	260	M3	21.0	268	M3	mg/L		29	70 - 130		
Manganese	3.0		1.00	3.74		mg/L		78	70 - 130		
Potassium	16		20.0	37.9		mg/L		112	70 - 130		

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

Lab Sample ID: 550-209609-3 MS
Matrix: Water
Analysis Batch: 310603

Client Sample ID: CH-CCR-BAPTD-1023
Prep Type: Total/NA
Prep Batch: 309969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	1700	B1 M3	20.0	1600	M3	mg/L		-450	70 - 130

Lab Sample ID: 550-209609-3 MSD
Matrix: Water
Analysis Batch: 310235

Client Sample ID: CH-CCR-BAPTD-1023
Prep Type: Total/NA
Prep Batch: 309969

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	ND		1.00	1.03		mg/L		103	70 - 130	1	20
Boron	4.9		1.00	5.76	M3	mg/L		83	70 - 130	1	20
Calcium	700	M3	21.0	677	M3	mg/L		-83	70 - 130	0	20
Iron	0.56		1.00	1.54		mg/L		98	70 - 130	0	20
Magnesium	260	M3	21.0	270	M3	mg/L		34	70 - 130	0	20
Manganese	3.0		1.00	3.71		mg/L		75	70 - 130	1	20
Potassium	16		20.0	38.0		mg/L		112	70 - 130	0	20

Lab Sample ID: 550-209609-3 MSD
Matrix: Water
Analysis Batch: 310603

Client Sample ID: CH-CCR-BAPTD-1023
Prep Type: Total/NA
Prep Batch: 309969

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	1700	B1 M3	20.0	1610	M3	mg/L		-410	70 - 130	1	20

Lab Sample ID: MB 570-379148/1-A
Matrix: Water
Analysis Batch: 379787

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 379148

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		0.050		mg/L		11/01/23 07:39	11/02/23 13:28	1

Lab Sample ID: LCS 570-379148/2-A
Matrix: Water
Analysis Batch: 379787

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 379148

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium			0.500	0.494		mg/L		99	85 - 115

Lab Sample ID: LCSD 570-379148/3-A
Matrix: Water
Analysis Batch: 379787

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 379148

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium			0.500	0.494		mg/L		99	85 - 115	0	20

Lab Sample ID: 550-209609-15 MS
Matrix: Water
Analysis Batch: 379787

Client Sample ID: CH-CCR-TWX9-1023
Prep Type: Total Recoverable
Prep Batch: 379148

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.33		0.500	0.829		mg/L		100	80 - 120

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

Lab Sample ID: 550-209609-15 MSD
Matrix: Water
Analysis Batch: 379787

Client Sample ID: CH-CCR-TWX9-1023
Prep Type: Total Recoverable
Prep Batch: 379148

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	0.33		0.500	0.856		mg/L		105	80 - 120	3	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-309967/1-A
Matrix: Water
Analysis Batch: 310202

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309967

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/26/23 05:13	10/27/23 19:05	1
Arsenic	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:05	1
Barium	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:05	1
Cadmium	ND		0.00010		mg/L		10/26/23 05:13	10/27/23 19:05	1
Chromium	ND		0.0010		mg/L		10/26/23 05:13	10/27/23 19:05	1
Cobalt	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:05	1
Lead	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:05	1
Molybdenum	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:05	1
Selenium	ND		0.00050		mg/L		10/26/23 05:13	10/27/23 19:05	1
Thallium	ND		0.00010		mg/L		10/26/23 05:13	10/27/23 19:05	1

Lab Sample ID: MB 550-309967/1-A
Matrix: Water
Analysis Batch: 310541

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309967

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		10/26/23 05:13	11/03/23 14:34	1
Arsenic	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:34	1
Barium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:34	1
Cadmium	ND		0.00010		mg/L		10/26/23 05:13	11/03/23 14:34	1
Chromium	ND		0.0010		mg/L		10/26/23 05:13	11/03/23 14:34	1
Cobalt	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:34	1
Lead	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:34	1
Molybdenum	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:34	1
Selenium	ND		0.00050		mg/L		10/26/23 05:13	11/03/23 14:34	1
Thallium	ND		0.00010		mg/L		10/26/23 05:13	11/03/23 14:34	1

Lab Sample ID: LCS 550-309967/2-A
Matrix: Water
Analysis Batch: 310202

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309967

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.0943		mg/L		94	85 - 115		
Arsenic			0.100	0.0953		mg/L		95	85 - 115		
Barium			0.100	0.102		mg/L		102	85 - 115		
Cadmium			0.100	0.0964		mg/L		96	85 - 115		
Chromium			0.100	0.0965		mg/L		97	85 - 115		
Cobalt			0.100	0.0961		mg/L		96	85 - 115		
Lead			0.100	0.103		mg/L		103	85 - 115		
Molybdenum			0.100	0.0974		mg/L		97	85 - 115		

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

Lab Sample ID: LCS 550-309967/2-A
Matrix: Water
Analysis Batch: 310202

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309967

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	0.100	0.0928		mg/L		93	85 - 115
Thallium	0.100	0.100		mg/L		100	85 - 115

Lab Sample ID: LCS 550-309967/2-A
Matrix: Water
Analysis Batch: 310541

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309967

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.0940		mg/L		94	85 - 115
Arsenic	0.100	0.0959		mg/L		96	85 - 115
Barium	0.100	0.102		mg/L		102	85 - 115
Cadmium	0.100	0.0968		mg/L		97	85 - 115
Chromium	0.100	0.0970		mg/L		97	85 - 115
Cobalt	0.100	0.101		mg/L		101	85 - 115
Lead	0.100	0.0984		mg/L		98	85 - 115
Molybdenum	0.100	0.0995		mg/L		99	85 - 115
Selenium	0.100	0.0953		mg/L		95	85 - 115
Thallium	0.100	0.0945		mg/L		95	85 - 115

Lab Sample ID: LCSD 550-309967/3-A
Matrix: Water
Analysis Batch: 310202

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309967

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.0929		mg/L		93	85 - 115	1	20
Arsenic	0.100	0.0935		mg/L		94	85 - 115	2	20
Barium	0.100	0.0998		mg/L		100	85 - 115	2	20
Cadmium	0.100	0.0952		mg/L		95	85 - 115	1	20
Chromium	0.100	0.0945		mg/L		94	85 - 115	2	20
Cobalt	0.100	0.0949		mg/L		95	85 - 115	1	20
Lead	0.100	0.100		mg/L		100	85 - 115	2	20
Molybdenum	0.100	0.0947		mg/L		95	85 - 115	3	20
Selenium	0.100	0.0913		mg/L		91	85 - 115	2	20
Thallium	0.100	0.0981		mg/L		98	85 - 115	2	20

Lab Sample ID: LCSD 550-309967/3-A
Matrix: Water
Analysis Batch: 310541

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309967

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.0950		mg/L		95	85 - 115	1	20
Arsenic	0.100	0.0968		mg/L		97	85 - 115	1	20
Barium	0.100	0.102		mg/L		102	85 - 115	0	20
Cadmium	0.100	0.0966		mg/L		97	85 - 115	0	20
Chromium	0.100	0.0986		mg/L		99	85 - 115	2	20
Cobalt	0.100	0.102		mg/L		102	85 - 115	1	20
Lead	0.100	0.101		mg/L		101	85 - 115	2	20
Molybdenum	0.100	0.0997		mg/L		100	85 - 115	0	20
Selenium	0.100	0.0954		mg/L		95	85 - 115	0	20

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

Lab Sample ID: LCSD 550-309967/3-A
Matrix: Water
Analysis Batch: 310541

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309967

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium			0.100	0.0960		mg/L		96	85 - 115	2	20

Lab Sample ID: 550-209609-1 MS
Matrix: Water
Analysis Batch: 310202

Client Sample ID: CH-CCR-MW78A-1023
Prep Type: Total/NA
Prep Batch: 309967

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND	M2	0.100	0.0185	M2	mg/L		18	70 - 130
Arsenic	0.00086	M2	0.100	0.0191	M2	mg/L		18	70 - 130
Barium	0.0022	M2	0.100	0.0215	M2	mg/L		19	70 - 130
Cadmium	ND	M2	0.100	0.0179	M2	mg/L		18	70 - 130
Chromium	ND	M2	0.100	0.0173	M2	mg/L		17	70 - 130
Cobalt	ND	M2	0.100	0.0176	M2	mg/L		17	70 - 130
Lead	ND	M2	0.100	0.0177	M2	mg/L		18	70 - 130
Molybdenum	0.0014	T5 M2	0.100	0.0202	M2	mg/L		19	70 - 130
Selenium	0.00077	M2	0.100	0.0176	M2	mg/L		17	70 - 130
Thallium	ND	M2	0.100	0.0175	M2	mg/L		17	70 - 130

Lab Sample ID: 550-209609-1 MS
Matrix: Water
Analysis Batch: 310541

Client Sample ID: CH-CCR-MW78A-1023
Prep Type: Total/NA
Prep Batch: 309967

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		0.100	0.0925		mg/L		92	70 - 130
Arsenic	0.0036		0.100	0.0974		mg/L		94	70 - 130
Barium	0.011		0.100	0.107		mg/L		96	70 - 130
Cadmium	ND		0.100	0.0898		mg/L		90	70 - 130
Chromium	ND		0.100	0.0911		mg/L		91	70 - 130
Cobalt	ND		0.100	0.0955		mg/L		94	70 - 130
Lead	ND		0.100	0.0880		mg/L		88	70 - 130
Molybdenum	0.0071	T5	0.100	0.103		mg/L		96	70 - 130
Selenium	ND		0.100	0.0896		mg/L		90	70 - 130
Thallium	ND		0.100	0.0840		mg/L		84	70 - 130

Lab Sample ID: 550-209609-1 MSD
Matrix: Water
Analysis Batch: 310202

Client Sample ID: CH-CCR-MW78A-1023
Prep Type: Total/NA
Prep Batch: 309967

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	M2	0.100	0.0189	M2	mg/L		19	70 - 130	2	20
Arsenic	0.00086	M2	0.100	0.0194	M2	mg/L		19	70 - 130	2	20
Barium	0.0022	M2	0.100	0.0223	M2	mg/L		20	70 - 130	4	20
Cadmium	ND	M2	0.100	0.0182	M2	mg/L		18	70 - 130	2	20
Chromium	ND	M2	0.100	0.0180	M2	mg/L		18	70 - 130	4	20
Cobalt	ND	M2	0.100	0.0182	M2	mg/L		18	70 - 130	3	20
Lead	ND	M2	0.100	0.0187	M2	mg/L		19	70 - 130	5	20
Molybdenum	0.0014	T5 M2	0.100	0.0209	M2	mg/L		20	70 - 130	3	20
Selenium	0.00077	M2	0.100	0.0181	M2	mg/L		17	70 - 130	3	20
Thallium	ND	M2	0.100	0.0181	M2	mg/L		18	70 - 130	3	20

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

Lab Sample ID: 550-209609-1 MSD — **Client Sample ID: CH-CCR-MW78A-1023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310541 — **Prep Batch: 309967**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.0936		mg/L		93	70 - 130	1	20
Arsenic	0.0036		0.100	0.0978		mg/L		94	70 - 130	0	20
Barium	0.011		0.100	0.110		mg/L		99	70 - 130	3	20
Cadmium	ND		0.100	0.0896		mg/L		89	70 - 130	0	20
Chromium	ND		0.100	0.0913		mg/L		91	70 - 130	0	20
Cobalt	ND		0.100	0.0956		mg/L		94	70 - 130	0	20
Lead	ND		0.100	0.0886		mg/L		89	70 - 130	1	20
Molybdenum	0.0071	T5	0.100	0.106		mg/L		99	70 - 130	3	20
Selenium	ND		0.100	0.0891		mg/L		89	70 - 130	1	20
Thallium	ND		0.100	0.0843		mg/L		84	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-310101/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310123 — **Prep Batch: 310101**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/27/23 11:38	10/27/23 15:03	1

Lab Sample ID: LCS 550-310101/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310123 — **Prep Batch: 310101**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00469		mg/L		94	85 - 115		

Lab Sample ID: LCSD 550-310101/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310123 — **Prep Batch: 310101**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00463		mg/L		93	85 - 115	1	20

Lab Sample ID: 550-209622-F-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310123 — **Prep Batch: 310101**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00629		mg/L		126	70 - 130		

Lab Sample ID: 550-209622-F-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310123 — **Prep Batch: 310101**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00612		mg/L		122	70 - 130	3	20

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 550-209624-F-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310123 — **Prep Batch: 310101**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00560		mg/L		112	70 - 130		

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-310375/60 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310375

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			11/01/23 13:22	1

Lab Sample ID: LCS 550-310375/61 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310375

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.980		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-310375/62 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310375

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.993		mg/L		99	90 - 110	1	20

Lab Sample ID: 550-209609-1 MS — **Client Sample ID: CH-CCR-MW78A-1023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310375

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.36		1.00	1.40		mg/L		104	90 - 110		

Lab Sample ID: 550-209609-1 MSD — **Client Sample ID: CH-CCR-MW78A-1023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 310375

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.36		1.00	1.30		mg/L		94	90 - 110	8	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-631959/104 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 631959

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			10/31/23 15:45	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: MB 280-631959/60
Matrix: Water
Analysis Batch: 631959

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			10/31/23 14:17	1

Lab Sample ID: LCS 280-631959/103
Matrix: Water
Analysis Batch: 631959

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			5.00	4.73		mg/L		95	90 - 110		

Lab Sample ID: 550-209610-G-11 MS
Matrix: Water
Analysis Batch: 631959

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	ND		4.00	3.80		mg/L		93	90 - 110		

Lab Sample ID: 550-209610-G-11 MSD
Matrix: Water
Analysis Batch: 631959

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		4.00	3.87		mg/L		94	90 - 110	2	10

Lab Sample ID: MB 280-632151/23
Matrix: Water
Analysis Batch: 632151

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			11/01/23 13:58	1

Lab Sample ID: LCS 280-632151/21
Matrix: Water
Analysis Batch: 632151

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			5.00	5.15		mg/L		103	90 - 110		

Lab Sample ID: LCSD 280-632151/22
Matrix: Water
Analysis Batch: 632151

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			5.00	5.05		mg/L		101	90 - 110	2	10

Lab Sample ID: 550-209609-17 MS
Matrix: Water
Analysis Batch: 632151

Client Sample ID: CH-CCR-TWX10-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	0.11		4.00	4.18		mg/L		102	90 - 110		

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: 550-209609-17 MSD
Matrix: Water
Analysis Batch: 632151

Client Sample ID: CH-CCR-TWX10-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.11		4.00	4.16		mg/L		101	90 - 110	1	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-310379/3
Matrix: Water
Analysis Batch: 310379

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			11/01/23 11:51	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			11/01/23 11:51	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			11/01/23 11:51	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			11/01/23 11:51	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			11/01/23 11:51	1

Lab Sample ID: LCS 550-310379/4
Matrix: Water
Analysis Batch: 310379

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	249		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-310379/17
Matrix: Water
Analysis Batch: 310379

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	242		mg/L		97	90 - 110	3	20

Lab Sample ID: 550-209609-1 DU
Matrix: Water
Analysis Batch: 310379

Client Sample ID: CH-CCR-MW78A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	140			139		mg/L				0.3	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	140			139		mg/L				0.3	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

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

Lab Sample ID: MB 550-310111/1
Matrix: Water
Analysis Batch: 310111

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			10/27/23 12:51	1

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

Lab Sample ID: LCS 550-310111/2
Matrix: Water
Analysis Batch: 310111

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	984		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-310111/3
Matrix: Water
Analysis Batch: 310111

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	966		mg/L		97	90 - 110	2	10

Lab Sample ID: 550-209609-1 DU
Matrix: Water
Analysis Batch: 310111

Client Sample ID: CH-CCR-MW78A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	7900			7720		mg/L				2	10

Lab Sample ID: MB 550-310120/1
Matrix: Water
Analysis Batch: 310120

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			10/27/23 15:46	1

Lab Sample ID: LCS 550-310120/2
Matrix: Water
Analysis Batch: 310120

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	980		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-310120/3
Matrix: Water
Analysis Batch: 310120

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	956		mg/L		96	90 - 110	2	10

Lab Sample ID: 550-209599-C-3 DU
Matrix: Water
Analysis Batch: 310120

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1900			1920		mg/L				1	10

Lab Sample ID: MB 550-310159/1
Matrix: Water
Analysis Batch: 310159

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			10/30/23 09:33	1

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

Lab Sample ID: LCS 550-310159/2
Matrix: Water
Analysis Batch: 310159

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	982		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-310159/3
Matrix: Water
Analysis Batch: 310159

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	990		mg/L		99	90 - 110	1	10

Lab Sample ID: 550-209578-K-1 DU
Matrix: Water
Analysis Batch: 310159

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	680			674		mg/L				1	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-310142/37
Matrix: Water
Analysis Batch: 310142

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-310142/49
Matrix: Water
Analysis Batch: 310142

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Lab Sample ID: 550-209609-1 DU
Matrix: Water
Analysis Batch: 310142

Client Sample ID: CH-CCR-MW78A-1023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.2	H5		7.2		SU				0.1	5
Temperature	10.3	H5 T5		10.2		Degrees C				1	

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 550-311093/5
Matrix: Water
Analysis Batch: 311093

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.50		mg/L			11/13/23 19:36	1
Total Organic Carbon - Duplicates	ND		0.50		mg/L			11/13/23 19:36	1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MB 550-311093/5
Matrix: Water
Analysis Batch: 311093

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	ND		0.50		mg/L			11/13/23 19:36	1

Lab Sample ID: LCS 550-311093/2
Matrix: Water
Analysis Batch: 311093

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			20.0	18.4		mg/L		92	90 - 110		
Total Organic Carbon - Duplicates			20.0	18.4		mg/L		92	90 - 110		
Total Organic Carbon - Quad			20.0	18.4		mg/L		92	90 - 110		

Lab Sample ID: LCSD 550-311093/3
Matrix: Water
Analysis Batch: 311093

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			20.0	19.6		mg/L		98	90 - 110	6	20
Total Organic Carbon - Duplicates			20.0	19.1		mg/L		96	90 - 110	4	20
Total Organic Carbon - Quad			20.0	19.6		mg/L		98	90 - 110	6	20

Lab Sample ID: 550-209656-F-1 MSD ^2
Matrix: Water
Analysis Batch: 311093

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	430	M3 D2	40.0	501	D2 M3	mg/L		173	90 - 110	7	20
Total Organic Carbon - Duplicates	430	M3 D2	40.0	501	D2 M3	mg/L		173	90 - 110	7	20
Total Organic Carbon - Quad	430	M3 D2	40.0	501	D2 M3	mg/L		173	90 - 110	7	20

Lab Sample ID: 550-209656-G-1 MS ^2
Matrix: Water
Analysis Batch: 311093

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	430	M3 D2	40.0	466	D2 M3	mg/L		86	90 - 110		
Total Organic Carbon - Duplicates	430	M3 D2	40.0	466	D2 M3	mg/L		86	90 - 110		
Total Organic Carbon - Quad	430	M3 D2	40.0	466	D2 M3	mg/L		86	90 - 110		

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 550-310867/3
Matrix: Water
Analysis Batch: 310867

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			11/08/23 19:23	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			11/08/23 19:23	1

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: MB 550-310867/3
Matrix: Water
Analysis Batch: 310867

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			11/08/23 19:23	1

Lab Sample ID: LCS 550-310867/5
Matrix: Water
Analysis Batch: 310867

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	18.7		mg/L		94	90 - 110		
Dissolved Organic Carbon - Duplicate			20.0	18.7		mg/L		93	90 - 110		
Dissolved Organic Carbon - Quad			20.0	18.7		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-310867/6
Matrix: Water
Analysis Batch: 310867

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	18.3		mg/L		92	90 - 110	2	20
Dissolved Organic Carbon - Duplicate			20.0	18.7		mg/L		93	90 - 110	0	20
Dissolved Organic Carbon - Quad			20.0	18.3		mg/L		92	90 - 110	2	20

Lab Sample ID: 550-209476-G-9 MS
Matrix: Water
Analysis Batch: 310867

Client Sample ID: Matrix Spike
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	0.55	M2	20.0	18.1	M2	mg/L		88	90 - 110		
Dissolved Organic Carbon - Duplicate	0.56	M2	20.0	18.1	M2	mg/L		88	90 - 110		
Dissolved Organic Carbon - Quad	0.55	M2	20.0	18.1	M2	mg/L		88	90 - 110		

Lab Sample ID: 550-209476-J-9 MSD
Matrix: Water
Analysis Batch: 310867

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	0.55	M2	20.0	17.5	M2	mg/L		85	90 - 110	3	20
Dissolved Organic Carbon - Duplicate	0.56	M2	20.0	17.5	M2	mg/L		85	90 - 110	3	20
Dissolved Organic Carbon - Quad	0.55	M2	20.0	17.5	M2	mg/L		85	90 - 110	3	20

Lab Sample ID: MB 550-311092/3
Matrix: Water
Analysis Batch: 311092

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			11/13/23 12:02	1

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: MB 550-311092/3
Matrix: Water
Analysis Batch: 311092

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			11/13/23 12:02	1
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			11/13/23 12:02	1

Lab Sample ID: LCS 550-311092/5
Matrix: Water
Analysis Batch: 311092

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	18.4		mg/L		92	90 - 110		
Dissolved Organic Carbon - Duplicate			20.0	18.4		mg/L		92	90 - 110		
Dissolved Organic Carbon - Quad			20.0	18.4		mg/L		92	90 - 110		

Lab Sample ID: LCSD 550-311092/6
Matrix: Water
Analysis Batch: 311092

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.6		mg/L		98	90 - 110	6	20
Dissolved Organic Carbon - Duplicate			20.0	19.1		mg/L		96	90 - 110	4	20
Dissolved Organic Carbon - Quad			20.0	19.6		mg/L		98	90 - 110	6	20

Lab Sample ID: 550-209610-B-6 MSD
Matrix: Water
Analysis Batch: 311092

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	2.0		20.0	21.6		mg/L		98	90 - 110	2	20
Dissolved Organic Carbon - Duplicate	2.0		20.0	21.6		mg/L		98	90 - 110	3	20
Dissolved Organic Carbon - Quad	2.0		20.0	21.6		mg/L		98	90 - 110	2	20

Lab Sample ID: 550-209610-C-6 MS
Matrix: Water
Analysis Batch: 311092

Client Sample ID: Matrix Spike
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	2.0		20.0	21.2		mg/L		96	90 - 110		
Dissolved Organic Carbon - Duplicate	2.0		20.0	21.0		mg/L		95	90 - 110		
Dissolved Organic Carbon - Quad	2.0		20.0	21.2		mg/L		96	90 - 110		

HPLC/IC

Analysis Batch: 310211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	300.0	
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	300.0	
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	9056A	
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	300.0	
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	300.0	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	300.0	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	300.0	
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	300.0	
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	300.0	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	300.0	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	300.0	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	300.0	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	300.0	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	300.0	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	300.0	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	300.0	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	300.0	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	300.0	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	300.0	
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	300.0	
MB 550-310211/2	Method Blank	Total/NA	Water	300.0	
LCS 550-310211/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-310211/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-209568-B-5 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-209568-B-5 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 309967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	200.8	
550-209609-2	CH-CCR-MW78A-1023	Dissolved	Water	200.8	
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	200.8	
550-209609-4	CH-CCR-BAPTD-1023	Dissolved	Water	200.8	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	200.8	
550-209609-6	CH-CCR-Petroglyph-1023	Dissolved	Water	200.8	
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	200.8	
550-209609-8	CH-CCR-TannerWash-1023	Dissolved	Water	200.8	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	200.8	
550-209609-10	CH-CCR-TWX3-1023	Dissolved	Water	200.8	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	200.8	
550-209609-12	CH-CCR-TWX5-1023	Dissolved	Water	200.8	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	200.8	
550-209609-14	CH-CCR-TWX7-1023	Dissolved	Water	200.8	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	200.8	
550-209609-16	CH-CCR-TWX9-1023	Dissolved	Water	200.8	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	200.8	
550-209609-18	CH-CCR-TWX10-1023	Dissolved	Water	200.8	
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	200.8	
550-209609-20	CH-CCR-EB01-1023	Dissolved	Water	200.8	
MB 550-309967/1-A	Method Blank	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 309967 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-309967/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-309967/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-209609-1 MS	CH-CCR-MW78A-1023	Total/NA	Water	200.8	
550-209609-1 MSD	CH-CCR-MW78A-1023	Total/NA	Water	200.8	

Prep Batch: 309969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	200.7	
550-209609-2	CH-CCR-MW78A-1023	Dissolved	Water	200.7	
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	200.7	
550-209609-4	CH-CCR-BAPTD-1023	Dissolved	Water	200.7	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	200.7	
550-209609-6	CH-CCR-Petroglyph-1023	Dissolved	Water	200.7	
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	200.7	
550-209609-8	CH-CCR-TannerWash-1023	Dissolved	Water	200.7	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	200.7	
550-209609-10	CH-CCR-TWX3-1023	Dissolved	Water	200.7	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	200.7	
550-209609-12	CH-CCR-TWX5-1023	Dissolved	Water	200.7	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	200.7	
550-209609-14	CH-CCR-TWX7-1023	Dissolved	Water	200.7	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	200.7	
550-209609-16	CH-CCR-TWX9-1023	Dissolved	Water	200.7	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	200.7	
550-209609-18	CH-CCR-TWX10-1023	Dissolved	Water	200.7	
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	200.7	
550-209609-20	CH-CCR-EB01-1023	Dissolved	Water	200.7	
MB 550-309969/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-309969/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-309969/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-209609-3 MS	CH-CCR-BAPTD-1023	Total/NA	Water	200.7	
550-209609-3 MSD	CH-CCR-BAPTD-1023	Total/NA	Water	200.7	

Prep Batch: 310101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	245.1	
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	245.1	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	245.1	
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	245.1	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	245.1	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	245.1	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	245.1	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	245.1	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	245.1	
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	245.1	
MB 550-310101/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-310101/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-310101/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-209622-F-1-B MS	Matrix Spike	Total/NA	Water	245.1	
550-209622-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
550-209624-F-1-C MS	Matrix Spike	Total/NA	Water	245.1	

Metals

Analysis Batch: 310123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	245.1	310101
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	245.1	310101
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	245.1	310101
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	245.1	310101
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	245.1	310101
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	245.1	310101
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	245.1	310101
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	245.1	310101
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	245.1	310101
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	245.1	310101
MB 550-310101/1-A	Method Blank	Total/NA	Water	245.1	310101
LCS 550-310101/2-A	Lab Control Sample	Total/NA	Water	245.1	310101
LCSD 550-310101/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	310101
550-209622-F-1-B MS	Matrix Spike	Total/NA	Water	245.1	310101
550-209622-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	310101
550-209624-F-1-C MS	Matrix Spike	Total/NA	Water	245.1	310101

Analysis Batch: 310202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	200.8 LL	309967
550-209609-2	CH-CCR-MW78A-1023	Dissolved	Water	200.8 LL	309967
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	200.8 LL	309967
550-209609-4	CH-CCR-BAPTD-1023	Dissolved	Water	200.8 LL	309967
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	200.8 LL	309967
550-209609-6	CH-CCR-Petroglyph-1023	Dissolved	Water	200.8 LL	309967
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	200.8 LL	309967
550-209609-8	CH-CCR-TannerWash-1023	Dissolved	Water	200.8 LL	309967
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	200.8 LL	309967
550-209609-10	CH-CCR-TWX3-1023	Dissolved	Water	200.8 LL	309967
MB 550-309967/1-A	Method Blank	Total/NA	Water	200.8 LL	309967
LCS 550-309967/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	309967
LCSD 550-309967/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	309967
550-209609-1 MS	CH-CCR-MW78A-1023	Total/NA	Water	200.8 LL	309967
550-209609-1 MSD	CH-CCR-MW78A-1023	Total/NA	Water	200.8 LL	309967

Analysis Batch: 310235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-2	CH-CCR-MW78A-1023	Dissolved	Water	200.7	309969
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-4	CH-CCR-BAPTD-1023	Dissolved	Water	200.7	309969
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-6	CH-CCR-Petroglyph-1023	Dissolved	Water	200.7	309969
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-8	CH-CCR-TannerWash-1023	Dissolved	Water	200.7	309969
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-10	CH-CCR-TWX3-1023	Dissolved	Water	200.7	309969
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-12	CH-CCR-TWX5-1023	Dissolved	Water	200.7	309969
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-14	CH-CCR-TWX7-1023	Dissolved	Water	200.7	309969

Metals (Continued)

Analysis Batch: 310235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-16	CH-CCR-TWX9-1023	Dissolved	Water	200.7	309969
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-18	CH-CCR-TWX10-1023	Dissolved	Water	200.7	309969
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-20	CH-CCR-EB01-1023	Dissolved	Water	200.7	309969
MB 550-309969/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	309969
LCS 550-309969/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	309969
LCSD 550-309969/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-3 MS	CH-CCR-BAPTD-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-3 MSD	CH-CCR-BAPTD-1023	Total/NA	Water	200.7 Rev 4.4	309969

Analysis Batch: 310541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	200.8 LL	309967
550-209609-12	CH-CCR-TWX5-1023	Dissolved	Water	200.8 LL	309967
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	200.8 LL	309967
550-209609-14	CH-CCR-TWX7-1023	Dissolved	Water	200.8 LL	309967
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	200.8 LL	309967
550-209609-16	CH-CCR-TWX9-1023	Dissolved	Water	200.8 LL	309967
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	200.8 LL	309967
550-209609-18	CH-CCR-TWX10-1023	Dissolved	Water	200.8 LL	309967
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	200.8 LL	309967
550-209609-20	CH-CCR-EB01-1023	Dissolved	Water	200.8 LL	309967
MB 550-309967/1-A	Method Blank	Total/NA	Water	200.8 LL	309967
LCS 550-309967/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	309967
LCSD 550-309967/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	309967
550-209609-1 MS	CH-CCR-MW78A-1023	Total/NA	Water	200.8 LL	309967
550-209609-1 MSD	CH-CCR-MW78A-1023	Total/NA	Water	200.8 LL	309967

Analysis Batch: 310603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-3 MS	CH-CCR-BAPTD-1023	Total/NA	Water	200.7 Rev 4.4	309969
550-209609-3 MSD	CH-CCR-BAPTD-1023	Total/NA	Water	200.7 Rev 4.4	309969

Prep Batch: 379148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total Recoverable	Water	200.7	
550-209609-3	CH-CCR-BAPTD-1023	Total Recoverable	Water	200.7	
550-209609-5	CH-CCR-Petroglyph-1023	Total Recoverable	Water	200.7	
550-209609-7	CH-CCR-TannerWash-1023	Total Recoverable	Water	200.7	

Metals (Continued)

Prep Batch: 379148 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-9	CH-CCR-TWX3-1023	Total Recoverable	Water	200.7	
550-209609-11	CH-CCR-TWX5-1023	Total Recoverable	Water	200.7	
550-209609-13	CH-CCR-TWX7-1023	Total Recoverable	Water	200.7	
550-209609-15	CH-CCR-TWX9-1023	Total Recoverable	Water	200.7	
550-209609-17	CH-CCR-TWX10-1023	Total Recoverable	Water	200.7	
550-209609-19	CH-CCR-EB01-1023	Total Recoverable	Water	200.7	
MB 570-379148/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 570-379148/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 570-379148/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
550-209609-15 MS	CH-CCR-TWX9-1023	Total Recoverable	Water	200.7	
550-209609-15 MSD	CH-CCR-TWX9-1023	Total Recoverable	Water	200.7	

Analysis Batch: 379787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-3	CH-CCR-BAPTD-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-5	CH-CCR-Petroglyph-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-7	CH-CCR-TannerWash-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-9	CH-CCR-TWX3-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-11	CH-CCR-TWX5-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-13	CH-CCR-TWX7-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-15	CH-CCR-TWX9-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-17	CH-CCR-TWX10-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-19	CH-CCR-EB01-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
MB 570-379148/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	379148
LCS 570-379148/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	379148
LCSD 570-379148/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-15 MS	CH-CCR-TWX9-1023	Total Recoverable	Water	200.7 Rev 4.4	379148
550-209609-15 MSD	CH-CCR-TWX9-1023	Total Recoverable	Water	200.7 Rev 4.4	379148

General Chemistry

Analysis Batch: 310111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	SM 2540C	
MB 550-310111/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-310111/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-310111/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-209609-1 DU	CH-CCR-MW78A-1023	Total/NA	Water	SM 2540C	

Analysis Batch: 310120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	SM 2540C	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	SM 2540C	
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	SM 2540C	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	SM 2540C	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	SM 2540C	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	SM 2540C	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	SM 2540C	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	SM 2540C	
MB 550-310120/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 310120 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-310120/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-310120/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-209599-C-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 310142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	SM 4500 H+ B	
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	SM 4500 H+ B	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	SM 4500 H+ B	
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	SM 4500 H+ B	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	SM 4500 H+ B	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	SM 4500 H+ B	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	SM 4500 H+ B	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	SM 4500 H+ B	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	SM 4500 H+ B	
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-310142/37	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-310142/49	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-209609-1 DU	CH-CCR-MW78A-1023	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 310159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	SM 2540C	
MB 550-310159/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-310159/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-310159/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-209578-K-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 310375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	350.1	
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	350.1	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	350.1	
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	350.1	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	350.1	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	350.1	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	350.1	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	350.1	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	350.1	
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	350.1	
MB 550-310375/60	Method Blank	Total/NA	Water	350.1	
LCS 550-310375/61	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-310375/62	Lab Control Sample Dup	Total/NA	Water	350.1	
550-209609-1 MS	CH-CCR-MW78A-1023	Total/NA	Water	350.1	
550-209609-1 MSD	CH-CCR-MW78A-1023	Total/NA	Water	350.1	

Analysis Batch: 310379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	SM 2320B	
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	SM 2320B	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 310379 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	SM 2320B	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	SM 2320B	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	SM 2320B	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	SM 2320B	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	SM 2320B	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	SM 2320B	
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	SM 2320B	
MB 550-310379/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-310379/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-310379/17	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-209609-1 DU	CH-CCR-MW78A-1023	Total/NA	Water	SM 2320B	

Analysis Batch: 310867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-2	CH-CCR-MW78A-1023	Dissolved	Water	SM 5310B	
550-209609-4	CH-CCR-BAPTD-1023	Dissolved	Water	SM 5310B	
550-209609-6	CH-CCR-Petroglyph-1023	Dissolved	Water	SM 5310B	
550-209609-8	CH-CCR-TannerWash-1023	Dissolved	Water	SM 5310B	
550-209609-20	CH-CCR-EB01-1023	Dissolved	Water	SM 5310B	
MB 550-310867/3	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-310867/5	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-310867/6	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-209476-G-9 MS	Matrix Spike	Dissolved	Water	SM 5310B	
550-209476-J-9 MSD	Matrix Spike Duplicate	Dissolved	Water	SM 5310B	

Analysis Batch: 311092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-10	CH-CCR-TWX3-1023	Dissolved	Water	SM 5310B	
550-209609-12	CH-CCR-TWX5-1023	Dissolved	Water	SM 5310B	
550-209609-14	CH-CCR-TWX7-1023	Dissolved	Water	SM 5310B	
550-209609-16	CH-CCR-TWX9-1023	Dissolved	Water	SM 5310B	
550-209609-18	CH-CCR-TWX10-1023	Dissolved	Water	SM 5310B	
MB 550-311092/3	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-311092/5	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-311092/6	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-209610-B-6 MSD	Matrix Spike Duplicate	Dissolved	Water	SM 5310B	
550-209610-C-6 MS	Matrix Spike	Dissolved	Water	SM 5310B	

Analysis Batch: 311093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	SM 5310B	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	SM 5310B	
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	SM 5310B	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	SM 5310B	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	SM 5310B	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	SM 5310B	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	SM 5310B	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	SM 5310B	
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	SM 5310B	
MB 550-311093/5	Method Blank	Total/NA	Water	SM 5310B	
LCS 550-311093/2	Lab Control Sample	Total/NA	Water	SM 5310B	

General Chemistry (Continued)

Analysis Batch: 311093 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 550-311093/3	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
550-209656-F-1 MSD ^2	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	
550-209656-G-1 MS ^2	Matrix Spike	Total/NA	Water	SM 5310B	

Analysis Batch: 631959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-1	CH-CCR-MW78A-1023	Total/NA	Water	353.2	
550-209609-3	CH-CCR-BAPTD-1023	Total/NA	Water	353.2	
550-209609-5	CH-CCR-Petroglyph-1023	Total/NA	Water	353.2	
MB 280-631959/104	Method Blank	Total/NA	Water	353.2	
MB 280-631959/60	Method Blank	Total/NA	Water	353.2	
LCS 280-631959/103	Lab Control Sample	Total/NA	Water	353.2	
550-209610-G-11 MS	Matrix Spike	Total/NA	Water	353.2	
550-209610-G-11 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Analysis Batch: 632151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-209609-7	CH-CCR-TannerWash-1023	Total/NA	Water	353.2	
550-209609-9	CH-CCR-TWX3-1023	Total/NA	Water	353.2	
550-209609-11	CH-CCR-TWX5-1023	Total/NA	Water	353.2	
550-209609-13	CH-CCR-TWX7-1023	Total/NA	Water	353.2	
550-209609-15	CH-CCR-TWX9-1023	Total/NA	Water	353.2	
550-209609-17	CH-CCR-TWX10-1023	Total/NA	Water	353.2	
550-209609-19	CH-CCR-EB01-1023	Total/NA	Water	353.2	
MB 280-632151/23	Method Blank	Total/NA	Water	353.2	
LCS 280-632151/21	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-632151/22	Lab Control Sample Dup	Total/NA	Water	353.2	
550-209609-17 MS	CH-CCR-TWX10-1023	Total/NA	Water	353.2	
550-209609-17 MSD	CH-CCR-TWX10-1023	Total/NA	Water	353.2	

Client Sample ID: CH-CCR-MW78A-1023

Lab Sample ID: 550-209609-1

Date Collected: 10/23/23 13:00

Matrix: Water

Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	310211	SMA	EET PHX	10/30/23 13:54
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/30/23 14:22
Total/NA	Analysis	9056A		1	310211	SMA	EET PHX	10/30/23 13:54
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		2	379787	K1UV	EET CAL 4	11/02/23 13:41
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:06
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:25
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:20
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:45
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:26
Total/NA	Analysis	353.2		1	631959	BCR	EET DEN	10/31/23 16:35
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 12:20
Total/NA	Analysis	SM 2540C		1	310111	KMG	EET PHX	10/27/23 12:51 - 11/01/23 10:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 12:54

Client Sample ID: CH-CCR-MW78A-1023

Lab Sample ID: 550-209609-2

Date Collected: 10/23/23 13:00

Matrix: Water

Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 01:08
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:22
Dissolved	Analysis	SM 5310B		1	310867	SMA	EET PHX	11/08/23 22:29

Client Sample ID: CH-CCR-BAPTD-1023

Lab Sample ID: 550-209609-3

Date Collected: 10/24/23 08:42

Matrix: Water

Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	310211	SMA	EET PHX	10/30/23 14:50
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/30/23 15:18
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		2	379787	K1UV	EET CAL 4	11/02/23 13:44
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:00
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:22

Client Sample ID: CH-CCR-BAPTD-1023

Lab Sample ID: 550-209609-3

Date Collected: 10/24/23 08:42

Matrix: Water

Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:24
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:43
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:31
Total/NA	Analysis	353.2		1	631959	BCR	EET DEN	10/31/23 16:37
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 12:34
Total/NA	Analysis	SM 2540C		1	310120	KMG	EET PHX	10/27/23 15:46 - 11/02/23 10:50 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 12:56
Total/NA	Analysis	SM 5310B		1	311093	SMA	EET PHX	11/14/23 01:15

Client Sample ID: CH-CCR-BAPTD-1023

Lab Sample ID: 550-209609-4

Date Collected: 10/24/23 08:42

Matrix: Water

Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 01:03
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:26
Dissolved	Analysis	SM 5310B		1	310867	SMA	EET PHX	11/08/23 22:49

Client Sample ID: CH-CCR-Petroglyph-1023

Lab Sample ID: 550-209609-5

Date Collected: 10/24/23 09:09

Matrix: Water

Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	310211	SMA	EET PHX	10/30/23 15:46
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/30/23 16:14
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		2	379787	K1UV	EET CAL 4	11/02/23 13:46
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:11
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:28
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:28
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:33
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:32
Total/NA	Analysis	353.2		1	631959	BCR	EET DEN	10/31/23 16:51
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 12:41
Total/NA	Analysis	SM 2540C		1	310120	KMG	EET PHX	10/27/23 15:46 - 11/02/23 10:50 [1]

Lab Chronicle

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-Petroglyph-1023

Lab Sample ID: 550-209609-5
Date Collected: 10/24/23 09:09
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 12:57
Total/NA	Analysis	SM 5310B		1	311093	SMA	EET PHX	11/14/23 01:36

Client Sample ID: CH-CCR-Petroglyph-1023

Lab Sample ID: 550-209609-6
Date Collected: 10/24/23 09:09
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 01:14
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:30
Dissolved	Analysis	SM 5310B		1	310867	SMA	EET PHX	11/08/23 23:06

Client Sample ID: CH-CCR-TannerWash-1023

Lab Sample ID: 550-209609-7
Date Collected: 10/24/23 09:28
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		10	310211	SMA	EET PHX	10/30/23 18:06
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/30/23 18:34
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		2	379787	K1UV	EET CAL 4	11/02/23 13:48
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:17
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:31
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:32
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:47
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:34
Total/NA	Analysis	353.2		1	632151	BCR	EET DEN	11/01/23 14:13
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 12:47
Total/NA	Analysis	SM 2540C		1	310120	KMG	EET PHX	10/27/23 15:46 - 11/02/23 10:50 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 12:58
Total/NA	Analysis	SM 5310B		1	311093	SMA	EET PHX	11/14/23 01:57

Lab Chronicle

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-TannerWash-1023

Lab Sample ID: 550-209609-8

Date Collected: 10/24/23 09:28
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 01:20
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:34
Dissolved	Analysis	SM 5310B		1	310867	SMA	EET PHX	11/08/23 23:27

Client Sample ID: CH-CCR-TWX3-1023

Lab Sample ID: 550-209609-9

Date Collected: 10/24/23 10:07
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	310211	SMA	EET PHX	10/30/23 19:02
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/30/23 19:30
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		2	379787	K1UV	EET CAL 4	11/02/23 13:51
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:23
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:34
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:36
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:49
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:35
Total/NA	Analysis	353.2		1	632151	BCR	EET DEN	11/01/23 14:15
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 12:54
Total/NA	Analysis	SM 2540C		1	310120	KMG	EET PHX	10/27/23 15:46 - 11/02/23 10:50 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 12:59
Total/NA	Analysis	SM 5310B		1	311093	SMA	EET PHX	11/14/23 02:13

Client Sample ID: CH-CCR-TWX3-1023

Lab Sample ID: 550-209609-10

Date Collected: 10/24/23 10:07
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 01:26
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		1	310202	DSJ	EET PHX	10/27/23 19:38
Dissolved	Analysis	SM 5310B		1	311092	SMA	EET PHX	11/13/23 16:43

Client Sample ID: CH-CCR-TWX5-1023

Lab Sample ID: 550-209609-11

Date Collected: 10/24/23 10:25

Matrix: Water

Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	310211	SMA	EET PHX	10/30/23 19:58
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/30/23 20:26
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		2	379787	K1UV	EET CAL 4	11/02/23 13:53
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:34
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:37
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 14:55
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:51
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:37
Total/NA	Analysis	353.2		1	632151	BCR	EET DEN	11/01/23 14:17
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 13:00
Total/NA	Analysis	SM 2540C		1	310120	KMG	EET PHX	10/27/23 15:46 - 11/02/23 10:50 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 13:00
Total/NA	Analysis	SM 5310B		1	311093	SMA	EET PHX	11/14/23 02:34

Client Sample ID: CH-CCR-TWX5-1023

Lab Sample ID: 550-209609-12

Date Collected: 10/24/23 10:25

Matrix: Water

Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 01:37
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 14:57
Dissolved	Analysis	SM 5310B		1	311092	SMA	EET PHX	11/13/23 17:45

Client Sample ID: CH-CCR-TWX7-1023

Lab Sample ID: 550-209609-13

Date Collected: 10/24/23 10:41

Matrix: Water

Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	310211	SMA	EET PHX	10/30/23 20:54
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/30/23 21:22
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		2	379787	K1UV	EET CAL 4	11/02/23 13:56
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:40
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:39

Client Sample ID: CH-CCR-TWX7-1023

Lab Sample ID: 550-209609-13

Date Collected: 10/24/23 10:41
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 14:59
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:53
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:38
Total/NA	Analysis	353.2		1	632151	BCR	EET DEN	11/01/23 14:19
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 13:07
Total/NA	Analysis	SM 2540C		1	310120	KMG	EET PHX	10/27/23 15:46 - 11/02/23 10:50 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 13:01
Total/NA	Analysis	SM 5310B		1	311093	SMA	EET PHX	11/14/23 02:55

Client Sample ID: CH-CCR-TWX7-1023

Lab Sample ID: 550-209609-14

Date Collected: 10/24/23 10:41
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 01:43
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 15:01
Dissolved	Analysis	SM 5310B		1	311092	SMA	EET PHX	11/13/23 18:02

Client Sample ID: CH-CCR-TWX9-1023

Lab Sample ID: 550-209609-15

Date Collected: 10/24/23 15:41
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	310211	SMA	EET PHX	10/30/23 21:50
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/30/23 23:42
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		2	379787	K1UV	EET CAL 4	11/02/23 13:58
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:45
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:42
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 15:03
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:55
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:40
Total/NA	Analysis	353.2		1	632151	BCR	EET DEN	11/01/23 14:33
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 13:13
Total/NA	Analysis	SM 2540C		1	310120	KMG	EET PHX	10/27/23 15:46 - 11/02/23 10:50 [1]

Client Sample ID: CH-CCR-TWX9-1023

Lab Sample ID: 550-209609-15

Date Collected: 10/24/23 15:41
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 13:02
Total/NA	Analysis	SM 5310B		1	311093	SMA	EET PHX	11/14/23 03:11

Client Sample ID: CH-CCR-TWX9-1023

Lab Sample ID: 550-209609-16

Date Collected: 10/24/23 15:41
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 01:48
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 15:54
Dissolved	Analysis	SM 5310B		1	311092	SMA	EET PHX	11/13/23 18:18

Client Sample ID: CH-CCR-TWX10-1023

Lab Sample ID: 550-209609-17

Date Collected: 10/24/23 15:59
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	310211	SMA	EET PHX	10/31/23 00:10
Total/NA	Analysis	300.0		100	310211	SMA	EET PHX	10/31/23 00:38
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		2	379787	K1UV	EET CAL 4	11/02/23 14:19
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:51
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:45
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 15:56
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:57
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:41
Total/NA	Analysis	353.2		1	632151	BCR	EET DEN	11/01/23 14:37
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 13:20
Total/NA	Analysis	SM 2540C		1	310120	KMG	EET PHX	10/27/23 15:46 - 11/02/23 10:50 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 13:03
Total/NA	Analysis	SM 5310B		1	311093	SMA	EET PHX	11/14/23 03:28

Lab Chronicle

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Client Sample ID: CH-CCR-TWX10-1023

Lab Sample ID: 550-209609-18

Date Collected: 10/24/23 15:59
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 01:54
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 15:58
Dissolved	Analysis	SM 5310B		1	311092	SMA	EET PHX	11/13/23 18:39

Client Sample ID: CH-CCR-EB01-1023

Lab Sample ID: 550-209609-19

Date Collected: 10/25/23 08:15
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	310211	SMA	EET PHX	10/31/23 05:45
Total Recoverable	Prep	200.7			379148	JP8N	EET CAL 4	11/01/23 07:39
Total Recoverable	Analysis	200.7 Rev 4.4		1	379787	K1UV	EET CAL 4	11/02/23 14:22
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		1	310235	GLW	EET PHX	10/31/23 01:57
Total/NA	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Total/NA	Analysis	200.7 Rev 4.4		10	310603	GLW	EET PHX	11/06/23 13:48
Total/NA	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Total/NA	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 16:00
Total/NA	Prep	245.1			310101	HHL	EET PHX	10/27/23 11:38
Total/NA	Analysis	245.1		1	310123	HHL	EET PHX	10/27/23 15:59
Total/NA	Analysis	350.1		1	310375	MAN	EET PHX	11/01/23 13:43
Total/NA	Analysis	353.2		1	632151	BCR	EET DEN	11/01/23 14:35
Total/NA	Analysis	SM 2320B		1	310379	MAN	EET PHX	11/01/23 13:26
Total/NA	Analysis	SM 2540C		1	310159	KMG	EET PHX	10/30/23 09:33 - 11/01/23 13:00 [1]
Total/NA	Analysis	SM 4500 H+ B		1	310142	MAN	EET PHX	10/29/23 13:04
Total/NA	Analysis	SM 5310B		1	311093	SMA	EET PHX	11/14/23 03:48

Client Sample ID: CH-CCR-EB01-1023

Lab Sample ID: 550-209609-20

Date Collected: 10/25/23 08:15
Matrix: Water
Date Received: 10/25/23 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			309969	SGO	EET PHX	10/26/23 05:56
Dissolved	Analysis	200.7		1	310235	GLW	EET PHX	10/31/23 02:00
Dissolved	Prep	200.8			309967	SGO	EET PHX	10/26/23 05:13
Dissolved	Analysis	200.8 LL		5	310541	DSJ	EET PHX	11/03/23 16:02
Dissolved	Analysis	SM 5310B		1	310867	SMA	EET PHX	11/08/23 23:51

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8 LL	200.8	Water	Molybdenum
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-23
California	SCAQMD LAP	17LA0919	11-30-23
California	State	3082	07-31-24
Nevada	State	CA00111	07-31-24
Oregon	NELAP	4175	02-02-24
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-23 *

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-23

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

Method Summary

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

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
9056A	Anions, Ion Chromatography	SW846	EET PHX
200.7	Dissolved Metals by ICP	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET CAL 4
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PHX
SM 5310B	Organic Carbon, Total (TOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET CAL 4
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209609

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	1 of 2 COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant **(BAP)**	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)	9056A - Fluoride	Sample Specific Notes:
CH-CCR-MW78A-1023 1+2	10/23/23	1300	G	W	11	*		X			X	X	X	X	X	X	X	X	X	X	X	X	X	Low Flow
																								"
																								"
																								"
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																								"
																								"
																								"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1		

550-209609 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; *As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.4 | 1.1 | 1.6 | 3.2 ON ICE-CDU

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
BSLC	WSP	10-25-23 1314			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				EETA PHX	10/26/23 1344

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

2096609

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	2 of 2 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☐ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Li, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5410B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)		Sample Specific Notes:
CH-CCR-BAPTD-1023	3+4	10/24/23	842	G	W	14	*		X	X	X	X	X	X	X	X	X	X	X	X	X	X		Seepage Pump Port Sample
CH-CCR-Petroglyph-1023	5+6	10/24/23	909	G	W	14	*		X	X	X	X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-TannerWash-1023	7+8	10/24/23	928	G	W	14	*		X	X	X	X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-TWX3-1023	9+10	10/24/23	1007	G	W	14	*		X	X	X	X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-TWX5-1023	11+12	10/24/23	1025	G	W	14	*		X	X	X	X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-TWX7-1023	13+14	10/24/23	1041	G	W	14	*		X	X	X	X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-TWX9-1023	15+16	10/24/23	1541	G	W	14	*		X	X	X	X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-TWX10-1023	17+18	10/24/23	1559	G	W	14	*		X	X	X	X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-EB01-1023	19+20	10/25/23	815	G	W	14	*		X	X	X	X	X	X	X	X	X	X	X	X	X	X		Equipment Blank
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____									1	4	4	4	4	4	1	1	2	2	3	3	1	1		

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.4/1.1 | 1.6/3.2 ONICE LDO

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: WSP	Date/Time: 10-23-23 1344	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA PHX	Date/Time: 10/25/23 1344

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

159469-434 MTW EXP 04/24

550-209609 Waybill

ORIGIN ID:INWA (602) 437-3340
TESTAMERICA-PHOENIX
TESTAMERICA
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US

SHIP DATE: 26OCT23
ACTWGT: 48.10 LB MAN
CAD: 0875926/CAFE3755
DIMS: 25x14x13 IN

BILL RECIPIENT

TO **SHIPPING/RECEIVING**
EUROFINS ENVIRONMENT TESTING SOUTHW
2841 DOW AVENUE, SUITE 100

TUSTIN CA 92780
(714) 895-5494 REF: 8550-86764
PO: YES DEPT: SAMPLE RECEIVING

585C1/BCBB/AED7

FedEx Express

E

J233023051201uv

TRK# 0201 6388 9413 2894

FRI - 27 OCT 10:30A
PRIORITY OVERNIGHT

QZ DTHA

92780
CA-US SNA

RT 678 5 D
ST 5.2 10:30
2894
10.27

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38110.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209609-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 11/7/2023			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CH-CCR-MW78A-1023 (550-209609-1)	10/23/23	13:00 Arizona		Water			X	1	
CH-CCR-BAPTD-1023 (550-209609-3)	10/24/23	08:42 Arizona		Water			X	1	
CH-CCR-Petroglyph-1023 (550-209609-5)	10/24/23	09:09 Arizona		Water			X	1	
CH-CCR-TannerWash-1023 (550-209609-7)	10/24/23	09:28 Arizona		Water			X	1	
CH-CCR-TWX3-1023 (550-209609-9)	10/24/23	10:07 Arizona		Water			X	1	
CH-CCR-TWX5-1023 (550-209609-11)	10/24/23	10:25 Arizona		Water			X	1	
CH-CCR-TWX7-1023 (550-209609-13)	10/24/23	10:41 Arizona		Water			X	1	
CH-CCR-TWX9-1023 (550-209609-15)	10/24/23	15:41 Arizona		Water			X	1	
CH-CCR-TWX10-1023 (550-209609-17)	10/24/23	15:59 Arizona		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	10-26-23	15:30	EESW	Fedex		
2					10-27-23 0945	EETDEN
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.7 & 0.3 R MOMO

Ver: 06/08/2021

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38110.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209609-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 11/7/2023			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
CH-CCR-EB01-1023 (550-209609-19)	10/25/23	08:15 Arizona		Water			X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by:	Date/Time:	Company
Eme 10-26-23	15:30	EETSW	Fedex		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10-27-23 0945	Company EETDEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 0.7 CF 0.3 IR MOMO

Ver: 06/08/2021

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Loc: 550
209609

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38106.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209609-1
Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 11/7/2023			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Custom 200.7 Metals List	Total Number of containers	Special Instructi
			Preservation Code:						
CH-CCR-MW78A-1023 (550-209609-1)	10/23/23	13:00 Arizona		Water			X	1	
CH-CCR-BAPTD-1023 (550-209609-3)	10/24/23	08:42 Arizona		Water			X	1	
CH-CCR-Petroglyph-1023 (550-209609-5)	10/24/23	09:09 Arizona		Water			X	1	
CH-CCR-TannerWash-1023 (550-209609-7)	10/24/23	09:28 Arizona		Water			X	1	
CH-CCR-TWX3-1023 (550-209609-9)	10/24/23	10:07 Arizona		Water			X	1	
CH-CCR-TWX5-1023 (550-209609-11)	10/24/23	10:25 Arizona		Water			X	1	
CH-CCR-TWX7-1023 (550-209609-13)	10/24/23	10:41 Arizona		Water			X	1	
CH-CCR-TWX9-1023 (550-209609-15)	10/24/23	15:41 Arizona		Water			X	1	
CH-CCR-TWX10-1023 (550-209609-17)	10/24/23	15:59 Arizona		Water			X	1	

550-209609 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Eric 10-26-23 15:00	CESW		Fedex		
2					10/27/23 9:40	EC
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.1/2.0 SC 12

Ver: 06/08/2021

11/22/2023

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38106.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 2 of 2
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-209609-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 11/7/2023			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Custom 200.7 Metals List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CH-CCR-EB01-1023 (550-209609-19)	10/25/23	08:15 Arizona		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 10-26-23 15:00	Company: EETSW	Received by: [signature]	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 10/27/23 9:40	Company: EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209609-1
SDG Number: APS Cholla Power Plant (BAP)

Login Number: 209609
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209609-1
SDG Number: APS Cholla Power Plant (BAP)

Login Number: 209609
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 10/27/23 12:32 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	2219810
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209609-1
SDG Number: APS Cholla Power Plant (BAP)

Login Number: 209609
List Number: 3
Creator: Martinez, Anthony

List Source: Eurofins Denver
List Creation: 10/28/23 01:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 4/10/2024 8:44:30 AM Revision 1

JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-210429-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

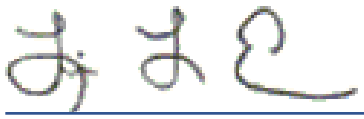
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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4/10/2024 8:44:30 AM
Revision 1

Authorized for release by
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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Definitions/Glossary

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

Job ID: 550-210429-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
R4	MS/MSD RPD exceeded the method control limit. Recovery met acceptance criteria.

Metals

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter

General Chemistry

Qualifier	Qualifier Description
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
550-210429-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/10/2023 2:28 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8°C and 2.4°C

HPLC/IC
Method 300_ORGFMS: Spike compounds were inadvertently omitted during the extraction process for the matrix spike (MS); therefore, matrix spike recoveries are unavailable for analytical batch 550-311323. The associated laboratory control sample (LCS) met acceptance criteria.

Method 300_ORGFMS: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 550-311323 was outside control limits. Spike omitted from matrix spike (MS). Laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

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

Metals
Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-311057 and analytical batch 550-311226 was outside acceptance criteria for the analytes Barium and Lead. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW52-1123 (550-210429-1), FC-CCR-MW61-1123 (550-210429-2) and FC-CCR-MW75-1123 (550-210429-3)

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

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

Revision
The report being provided is a revision of the original report sent on 12/11/2023. The report (revision 1) is being revised due to: Client questioned the 9056 result, upon review, it was found that the dilution factor was entered incorrect..

Sample Summary

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

Job ID: 550-210429-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-210429-1	FC-CCR-MW52-1123	Water	11/08/23 14:40	11/10/23 14:28
550-210429-2	FC-CCR-MW61-1123	Water	11/09/23 12:50	11/10/23 14:28
550-210429-3	FC-CCR-MW75-1123	Water	11/08/23 15:39	11/10/23 14:28
550-210429-4	FC-CCR-FD03-1123	Water	11/08/23 16:11	11/10/23 14:28

Detection Summary

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

Job ID: 550-210429-1

Client Sample ID: FC-CCR-MW52-1123 — Lab Sample ID: 550-210429-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	11	M3	0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	100		0.50		ug/L	1		200.8 LL	Total/NA
Molybdenum	2.2	T5	0.50		ug/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW61-1123 — Lab Sample ID: 550-210429-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	360	D2	40		mg/L	20		300.0	Total/NA
Fluoride	1.3	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	3700	D2	400		mg/L	200		300.0	Total/NA
Boron	49		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	620		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	190		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	28		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1200		2.5		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.50		0.050		mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0016		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.023		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.0011		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.0018		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.027		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.0015		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.11	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0020		0.00050		mg/L	1		200.8 LL	Total/NA
Thallium	0.00028		0.00010		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	99		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	99		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6000		100		mg/L	1		SM 2540C	Total/NA
pH	8.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW75-1123 — Lab Sample ID: 550-210429-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.2	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	4600		400		mg/L	200		300.0	Total/NA
Fluoride	1.2		0.80		mg/L	2		9056A	Total/NA
Boron	27		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	290		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	29		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1500		2.5		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.50		0.050		mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0012		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.020		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.0018		0.00010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.058		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.0035		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.18	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0045		0.00050		mg/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW75-1123 (Continued)

Lab Sample ID: 550-210429-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Thallium	0.00025		0.00010		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	100		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7100		100		mg/L	1		SM 2540C	Total/NA
pH	8.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD03-1123

Lab Sample ID: 550-210429-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	10		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	99		2.0		ug/L	4		200.8 LL	Total/NA
Molybdenum	2.7	T5	0.50		ug/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW52-1123

Lab Sample ID: 550-210429-1

Date Collected: 11/08/23 14:40

Matrix: Water

Date Received: 11/10/23 14:28

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	11	M3	0.050		mg/L		11/14/23 10:09	11/20/23 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	100		0.50		ug/L		11/14/23 08:56	11/16/23 00:37	1
Molybdenum	2.2	T5	0.50		ug/L		11/14/23 08:56	11/16/23 00:37	1

Client Sample ID: FC-CCR-MW61-1123

Lab Sample ID: 550-210429-2

Date Collected: 11/09/23 12:50

Matrix: Water

Date Received: 11/10/23 14:28

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	360	D2	40		mg/L			11/30/23 21:01	20
Fluoride	1.3	D2	0.80		mg/L			11/17/23 17:12	2
Sulfate	3700	D2	400		mg/L			11/17/23 18:26	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		11/14/23 10:09	11/20/23 16:51	1
Boron	49		0.050		mg/L		11/14/23 10:09	11/20/23 16:51	1
Calcium	620		2.0		mg/L		11/14/23 10:09	11/20/23 16:51	1
Magnesium	190		2.0		mg/L		11/14/23 10:09	11/20/23 16:51	1
Potassium	28		0.50		mg/L		11/14/23 10:09	11/20/23 16:51	1
Sodium	1200		2.5		mg/L		11/14/23 10:09	11/21/23 12:06	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.50		0.050		mg/L		11/15/23 07:10	11/16/23 19:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		11/14/23 08:56	11/16/23 00:39	1
Arsenic	0.0016		0.00050		mg/L		11/14/23 08:56	11/16/23 00:39	1
Barium	0.023		0.00050		mg/L		11/14/23 08:56	11/16/23 00:39	1
Cadmium	0.0011		0.00010		mg/L		11/14/23 08:56	11/16/23 00:39	1
Chromium	0.0018		0.0010		mg/L		11/14/23 08:56	11/16/23 00:39	1
Cobalt	0.027		0.00050		mg/L		11/14/23 08:56	11/16/23 00:39	1
Lead	0.0015		0.00050		mg/L		11/14/23 08:56	11/16/23 00:39	1
Molybdenum	0.11	T5	0.00050		mg/L		11/14/23 08:56	11/16/23 00:39	1
Selenium	0.0020		0.00050		mg/L		11/14/23 08:56	11/16/23 00:39	1
Thallium	0.00028		0.00010		mg/L		11/14/23 08:56	11/16/23 00:39	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/14/23 13:28	11/14/23 17:35	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 (SM 2320B)	99		6.0		mg/L			11/15/23 16:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	99		6.0		mg/L			11/15/23 16:57	1

Client Sample ID: FC-CCR-MW61-1123

Lab Sample ID: 550-210429-2

Date Collected: 11/09/23 12:50

Matrix: Water

Date Received: 11/10/23 14:28

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/15/23 16:57	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/15/23 16:57	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/15/23 16:57	1
Total Dissolved Solids (SM 2540C)	**6000**		100		mg/L			11/15/23 11:03	1
pH (SM 4500 H+ B)	**8.5**	**H5**	1.7		SU			11/15/23 13:46	1
Temperature (SM 4500 H+ B)	**12.2**	**H5 T5**	0.1		Degrees C			11/15/23 13:46	1

Client Sample ID: FC-CCR-MW75-1123

Lab Sample ID: 550-210429-3

Date Collected: 11/08/23 15:39

Matrix: Water

Date Received: 11/10/23 14:28

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		400		mg/L			11/17/23 19:03	200
Fluoride	**1.2**	**D2**	0.80		mg/L			11/17/23 18:44	2
Sulfate	**4600**		400		mg/L			11/17/23 19:03	200

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.2**		0.80		mg/L			12/01/23 10:12	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		11/14/23 10:09	11/20/23 16:54	1
Boron	**27**		0.050		mg/L		11/14/23 10:09	11/20/23 16:54	1
Calcium	**530**		2.0		mg/L		11/14/23 10:09	11/20/23 16:54	1
Magnesium	**290**		2.0		mg/L		11/14/23 10:09	11/20/23 16:54	1
Potassium	**29**		0.50		mg/L		11/14/23 10:09	11/20/23 16:54	1
Sodium	**1500**		2.5		mg/L		11/14/23 10:09	11/21/23 12:09	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.50**		0.050		mg/L		11/15/23 07:10	11/16/23 19:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		11/14/23 08:56	11/16/23 00:41	1
Arsenic	**0.0012**		0.00050		mg/L		11/14/23 08:56	11/16/23 00:41	1
Barium	**0.020**		0.00050		mg/L		11/14/23 08:56	11/16/23 00:41	1
Cadmium	**0.0018**		0.00010		mg/L		11/14/23 08:56	11/16/23 00:41	1
Chromium	ND		0.0010		mg/L		11/14/23 08:56	11/16/23 00:41	1
Cobalt	**0.058**		0.00050		mg/L		11/14/23 08:56	11/16/23 00:41	1
Lead	**0.0035**		0.00050		mg/L		11/14/23 08:56	11/16/23 00:41	1
Molybdenum	**0.18**	**T5**	0.00050		mg/L		11/14/23 08:56	11/16/23 00:41	1
Selenium	**0.0045**		0.00050		mg/L		11/14/23 08:56	11/16/23 00:41	1
Thallium	**0.00025**		0.00010		mg/L		11/14/23 08:56	11/16/23 00:41	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/14/23 13:28	11/14/23 17:37	1

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

Job ID: 550-210429-1

Client Sample ID: FC-CCR-MW75-1123

Lab Sample ID: 550-210429-3

Date Collected: 11/08/23 15:39
Matrix: Water
Date Received: 11/10/23 14:28

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 (SM 2320B)	**100**		6.0		mg/L			11/15/23 17:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**100**		6.0		mg/L			11/15/23 17:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/15/23 17:03	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			11/15/23 17:03	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			11/15/23 17:03	1
Total Dissolved Solids (SM 2540C)	**7100**		100		mg/L			11/14/23 11:18	1
pH (SM 4500 H+ B)	**8.3**	**H5**	1.7		SU			11/15/23 13:48	1
Temperature (SM 4500 H+ B)	**12.2**	**H5 T5**	0.1		Degrees C			11/15/23 13:48	1

Client Sample ID: FC-CCR-FD03-1123

Lab Sample ID: 550-210429-4

Date Collected: 11/08/23 16:11
Matrix: Water
Date Received: 11/10/23 14:28

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**10**		0.050		mg/L		11/14/23 10:09	11/20/23 16:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**99**		2.0		ug/L		11/14/23 08:56	11/20/23 15:15	4
Molybdenum	**2.7**	**T5**	0.50		ug/L		11/14/23 08:56	11/16/23 00:43	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-311323/2
Matrix: Water
Analysis Batch: 311323

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			11/17/23 13:13	1
Fluoride	ND		0.40		mg/L			11/17/23 13:13	1
Sulfate	ND		2.0		mg/L			11/17/23 13:13	1

Lab Sample ID: LCS 550-311323/69
Matrix: Water
Analysis Batch: 311323

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	20.7		mg/L		103	90 - 110		
Fluoride			4.00	4.21		mg/L		105	90 - 110		
Sulfate			20.0	20.8		mg/L		104	90 - 110		

Lab Sample ID: LCSD 550-311323/70
Matrix: Water
Analysis Batch: 311323

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	20.7		mg/L		103	90 - 110	0	20
Fluoride			4.00	4.25		mg/L		106	90 - 110	1	20
Sulfate			20.0	20.9		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-210428-A-19 MS ^200
Matrix: Water
Analysis Batch: 311323

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1600	M2	4000	ND	M2	mg/L		0	80 - 120		
Fluoride	ND	M2	800	ND	M2	mg/L		0	80 - 120		
Sulfate	25000	E2 M3 R4	4000	805	M3	mg/L		-593	80 - 120		

Lab Sample ID: 550-210428-A-19 MSD ^200
Matrix: Water
Analysis Batch: 311323

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1600	M2	4000	5830		mg/L		106	80 - 120	NC	20
Fluoride	ND	M2	800	817		mg/L		102	80 - 120	NC	20
Sulfate	25000	E2 M3 R4	4000	27900	E2 M3 R4	mg/L		84	80 - 120	189	20

Lab Sample ID: MB 550-312090/2
Matrix: Water
Analysis Batch: 312090

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			11/30/23 16:06	1
Fluoride	ND		0.40		mg/L			11/30/23 16:06	1
Sulfate	ND		2.0		mg/L			11/30/23 16:06	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-312090/5
Matrix: Water
Analysis Batch: 312090

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	21.2		mg/L		106	90 - 110		
Fluoride			4.00	4.26		mg/L		107	90 - 110		
Sulfate			20.0	21.4		mg/L		107	90 - 110		

Lab Sample ID: LCSD 550-312090/6
Matrix: Water
Analysis Batch: 312090

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	21.2		mg/L		106	90 - 110	0	20
Fluoride			4.00	4.29		mg/L		107	90 - 110	1	20
Sulfate			20.0	21.4		mg/L		107	90 - 110	0	20

Lab Sample ID: 550-211106-A-2 MS
Matrix: Water
Analysis Batch: 312090

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	670	E2 M3	20.0	663	E2 M3	mg/L		-60	80 - 120		
Fluoride	1.9		4.00	5.90		mg/L		99	80 - 120		
Sulfate	700	E2 M3	20.0	690	E2 M3	mg/L		-50	80 - 120		

Lab Sample ID: 550-211106-A-2 MSD
Matrix: Water
Analysis Batch: 312090

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	670	E2 M3	20.0	663	E2 M3	mg/L		-61	80 - 120	0	20
Fluoride	1.9		4.00	5.98		mg/L		101	80 - 120	1	20
Sulfate	700	E2 M3	20.0	689	E2 M3	mg/L		-54	80 - 120	0	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 550-312000/1-A
Matrix: Water
Analysis Batch: 312091

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		4.0		mg/L			12/01/23 03:09	1

Lab Sample ID: MB 550-312091/2
Matrix: Water
Analysis Batch: 312091

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			11/30/23 16:06	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-312000/2-A
Matrix: Water
Analysis Batch: 312091

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			39.7	41.1		mg/L		103	80 - 120		

Lab Sample ID: LCSD 550-312000/3-A
Matrix: Water
Analysis Batch: 312091

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride			39.8	42.2		mg/L		106	80 - 120	3	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-311064/1-A
Matrix: Water
Analysis Batch: 311482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311064

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		11/14/23 10:09	11/20/23 16:34	1
Boron	ND		0.050		mg/L		11/14/23 10:09	11/20/23 16:34	1
Calcium	ND		2.0		mg/L		11/14/23 10:09	11/20/23 16:34	1
Magnesium	ND		2.0		mg/L		11/14/23 10:09	11/20/23 16:34	1
Potassium	ND		0.50		mg/L		11/14/23 10:09	11/20/23 16:34	1
Sodium	ND		0.50		mg/L		11/14/23 10:09	11/20/23 16:34	1

Lab Sample ID: LCS 550-311064/2-A
Matrix: Water
Analysis Batch: 311482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311064

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	1.17		mg/L		117	85 - 115		
Boron			1.00	1.16		mg/L		116	85 - 115		
Calcium			21.0	24.5		mg/L		117	85 - 115		
Magnesium			21.0	23.9		mg/L		114	85 - 115		
Potassium			20.0	23.0		mg/L		115	85 - 115		
Sodium			20.0	22.8		mg/L		114	85 - 115		

Lab Sample ID: LCSD 550-311064/3-A
Matrix: Water
Analysis Batch: 311482

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 311064

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium			1.00	1.17		mg/L		117	85 - 115	0	20
Boron			1.00	1.14		mg/L		114	85 - 115	2	20
Calcium			21.0	24.2		mg/L		115	85 - 115	1	20
Magnesium			21.0	23.7		mg/L		113	85 - 115	1	20
Potassium			20.0	22.6		mg/L		113	85 - 115	2	20
Sodium			20.0	22.4		mg/L		112	85 - 115	2	20

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

Lab Sample ID: 550-210429-1 MS
Matrix: Water
Analysis Batch: 311482

Client Sample ID: FC-CCR-MW52-1123
Prep Type: Total/NA
Prep Batch: 311064

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	11	M3	1.00	11.3	M3	mg/L		56	70 - 130		

Lab Sample ID: 550-210429-1 MSD
Matrix: Water
Analysis Batch: 311482

Client Sample ID: FC-CCR-MW52-1123
Prep Type: Total/NA
Prep Batch: 311064

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	11	M3	1.00	11.3	M3	mg/L		52	70 - 130	0	20

Lab Sample ID: MB 570-383775/1-A
Matrix: Water
Analysis Batch: 384611

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 383775

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		0.050		mg/L		11/15/23 07:10	11/16/23 18:55	1

Lab Sample ID: LCS 570-383775/2-A
Matrix: Water
Analysis Batch: 384611

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 383775

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			0.500	0.499		mg/L		100	85 - 115		

Lab Sample ID: LCSD 570-383775/3-A
Matrix: Water
Analysis Batch: 384611

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 383775

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium			0.500	0.497		mg/L		99	85 - 115	0	20

Lab Sample ID: 570-160842-L-8-B MS
Matrix: Water
Analysis Batch: 384611

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 383775

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium	ND		0.500	0.531		mg/L		106	80 - 120		

Lab Sample ID: 570-160842-L-8-C MSD
Matrix: Water
Analysis Batch: 384611

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 383775

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	ND		0.500	0.529		mg/L		106	80 - 120	0	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-311057/1-A
Matrix: Water
Analysis Batch: 311226

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311057

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		11/14/23 08:56	11/16/23 00:22	1
Arsenic	ND		0.00050		mg/L		11/14/23 08:56	11/16/23 00:22	1
Barium	ND		0.00050		mg/L		11/14/23 08:56	11/16/23 00:22	1
Cadmium	ND		0.00010		mg/L		11/14/23 08:56	11/16/23 00:22	1
Chromium	ND		0.0010		mg/L		11/14/23 08:56	11/16/23 00:22	1
Cobalt	ND		0.50		ug/L		11/14/23 08:56	11/16/23 00:22	1
Lead	ND		0.00050		mg/L		11/14/23 08:56	11/16/23 00:22	1
Molybdenum	ND		0.50		ug/L		11/14/23 08:56	11/16/23 00:22	1
Selenium	ND		0.00050		mg/L		11/14/23 08:56	11/16/23 00:22	1
Thallium	ND		0.00010		mg/L		11/14/23 08:56	11/16/23 00:22	1

Lab Sample ID: MB 550-311057/1-A
Matrix: Water
Analysis Batch: 311523

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311057

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND		0.50		ug/L		11/14/23 08:56	11/20/23 15:03	1

Lab Sample ID: LCS 550-311057/2-A
Matrix: Water
Analysis Batch: 311226

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311057

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.102		mg/L		102	85 - 115		
Arsenic			0.100	0.0979		mg/L		98	85 - 115		
Cadmium			0.100	0.0995		mg/L		99	85 - 115		
Chromium			0.100	0.0965		mg/L		96	85 - 115		
Cobalt			100	99.9		ug/L		100	85 - 115		
Molybdenum			100	101		ug/L		101	85 - 115		
Selenium			0.100	0.0953		mg/L		95	85 - 115		
Thallium			0.100	0.113		mg/L		113	85 - 115		

Lab Sample ID: LCS 550-311057/2-A
Matrix: Water
Analysis Batch: 311523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311057

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cobalt			100	94.6		ug/L		95	85 - 115		

Lab Sample ID: LCSD 550-311057/3-A
Matrix: Water
Analysis Batch: 311226

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 311057

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.101		mg/L		101	85 - 115	1	20
Arsenic			0.100	0.0968		mg/L		97	85 - 115	1	20
Cadmium			0.100	0.0978		mg/L		98	85 - 115	2	20
Chromium			0.100	0.0961		mg/L		96	85 - 115	0	20
Cobalt			100	98.2		ug/L		98	85 - 115	2	20

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

Lab Sample ID: LCSD 550-311057/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311226 — **Prep Batch: 311057**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Molybdenum	100	99.0		ug/L		99	85 - 115	2	20
Selenium	0.100	0.0946		mg/L		95	85 - 115	1	20
Thallium	0.100	0.114		mg/L		114	85 - 115	1	20

Lab Sample ID: LCSD 550-311057/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311523 — **Prep Batch: 311057**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	100	97.2		ug/L		97	85 - 115	3	20

Lab Sample ID: 550-210429-1 MS — **Client Sample ID: FC-CCR-MW52-1123**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311226 — **Prep Batch: 311057**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	2.2	T5	100	108		ug/L		106	70 - 130

Lab Sample ID: 550-210429-1 MS — **Client Sample ID: FC-CCR-MW52-1123**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311523 — **Prep Batch: 311057**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	100		100	193		ug/L			

Lab Sample ID: 550-210429-1 MSD — **Client Sample ID: FC-CCR-MW52-1123**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311226 — **Prep Batch: 311057**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	100		100	194		ug/L		93	70 - 130	2	20
Molybdenum	2.2	T5	100	107		ug/L		105	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-311086/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311105 — **Prep Batch: 311086**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		11/14/23 13:28	11/14/23 17:17	1

Lab Sample ID: LCS 550-311086/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311105 — **Prep Batch: 311086**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00500	0.00499		mg/L		100	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 550-311086/3-A
Matrix: Water
Analysis Batch: 311105

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 311086

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00488		mg/L		98	85 - 115	2	20

Lab Sample ID: 550-210432-I-2-C MS
Matrix: Water
Analysis Batch: 311105

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 311086

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00501		mg/L		100	70 - 130		

Lab Sample ID: 550-210432-I-2-D MSD
Matrix: Water
Analysis Batch: 311105

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 311086

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00504		mg/L		101	70 - 130	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-311195/5
Matrix: Water
Analysis Batch: 311195

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			11/15/23 12:58	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			11/15/23 12:58	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			11/15/23 12:58	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			11/15/23 12:58	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			11/15/23 12:58	1

Lab Sample ID: LCS 550-311195/4
Matrix: Water
Analysis Batch: 311195

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	244		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-311195/8
Matrix: Water
Analysis Batch: 311195

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	245		mg/L		98	90 - 110	0	20

Lab Sample ID: 550-210347-L-1 DU
Matrix: Water
Analysis Batch: 311195

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	98			98.3		mg/L				0	20
Bicarbonate Alkalinity as CaCO3	98			98.3		mg/L				0	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 550-210347-L-1 DU
Matrix: Water
Analysis Batch: 311195

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

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

Lab Sample ID: MB 550-311072/1
Matrix: Water
Analysis Batch: 311072

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			11/14/23 11:18	1

Lab Sample ID: LCS 550-311072/2
Matrix: Water
Analysis Batch: 311072

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	978		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-311072/3
Matrix: Water
Analysis Batch: 311072

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	978		mg/L		98	90 - 110	0	10

Lab Sample ID: 550-210340-G-3 DU
Matrix: Water
Analysis Batch: 311072

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1100			1130		mg/L				0.7	10

Lab Sample ID: MB 550-311147/1
Matrix: Water
Analysis Batch: 311147

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			11/15/23 11:03	1

Lab Sample ID: LCS 550-311147/2
Matrix: Water
Analysis Batch: 311147

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	990		mg/L		99	90 - 110		

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

Lab Sample ID: LCSD 550-311147/3
Matrix: Water
Analysis Batch: 311147

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	982		mg/L		98	90 - 110	1	10

Lab Sample ID: 550-210428-A-12 DU
Matrix: Water
Analysis Batch: 311147

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	8400			8610		mg/L				2	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-311239/25
Matrix: Water
Analysis Batch: 311239

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.1		SU		100.7	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-311239/30
Matrix: Water
Analysis Batch: 311239

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.1		SU		101.0	98.5 - 101.5		

Lab Sample ID: 550-210429-2 DU
Matrix: Water
Analysis Batch: 311239

Client Sample ID: FC-CCR-MW61-1123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.5	H5		8.5		SU				0	5
Temperature	12.2	H5 T5		12.2		Degrees C				0	

HPLC/IC

Analysis Batch: 311323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	300.0	
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	300.0	
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	300.0	
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	300.0	
MB 550-311323/2	Method Blank	Total/NA	Water	300.0	
LCS 550-311323/69	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-311323/70	Lab Control Sample Dup	Total/NA	Water	300.0	
550-210428-A-19 MS ^200	Matrix Spike	Total/NA	Water	300.0	
550-210428-A-19 MSD ^200	Matrix Spike Duplicate	Total/NA	Water	300.0	

Leach Batch: 312000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-312000/1-A	Method Blank	Total/NA	Water	DI Leach	
LCS 550-312000/2-A	Lab Control Sample	Total/NA	Water	DI Leach	
LCSD 550-312000/3-A	Lab Control Sample Dup	Total/NA	Water	DI Leach	

Analysis Batch: 312090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	300.0	
MB 550-312090/2	Method Blank	Total/NA	Water	300.0	
LCS 550-312090/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-312090/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-211106-A-2 MS	Matrix Spike	Total/NA	Water	300.0	
550-211106-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 312091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	9056A	
MB 550-312000/1-A	Method Blank	Total/NA	Water	9056A	312000
MB 550-312091/2	Method Blank	Total/NA	Water	9056A	
LCS 550-312000/2-A	Lab Control Sample	Total/NA	Water	9056A	312000
LCSD 550-312000/3-A	Lab Control Sample Dup	Total/NA	Water	9056A	312000

Metals

Prep Batch: 311057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-1	FC-CCR-MW52-1123	Total/NA	Water	200.8	
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	200.8	
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	200.8	
550-210429-4	FC-CCR-FD03-1123	Total/NA	Water	200.8	
MB 550-311057/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-311057/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-311057/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-210429-1 MS	FC-CCR-MW52-1123	Total/NA	Water	200.8	
550-210429-1 MSD	FC-CCR-MW52-1123	Total/NA	Water	200.8	

Prep Batch: 311064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-1	FC-CCR-MW52-1123	Total/NA	Water	200.7	
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 311064 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	200.7	
550-210429-4	FC-CCR-FD03-1123	Total/NA	Water	200.7	
MB 550-311064/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-311064/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-311064/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-210429-1 MS	FC-CCR-MW52-1123	Total/NA	Water	200.7	
550-210429-1 MSD	FC-CCR-MW52-1123	Total/NA	Water	200.7	

Prep Batch: 311086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	245.1	
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	245.1	
MB 550-311086/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-311086/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-311086/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-210432-I-2-C MS	Matrix Spike	Total/NA	Water	245.1	
550-210432-I-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 311105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	245.1	311086
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	245.1	311086
MB 550-311086/1-A	Method Blank	Total/NA	Water	245.1	311086
LCS 550-311086/2-A	Lab Control Sample	Total/NA	Water	245.1	311086
LCSD 550-311086/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	311086
550-210432-I-2-C MS	Matrix Spike	Total/NA	Water	245.1	311086
550-210432-I-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	311086

Analysis Batch: 311226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-1	FC-CCR-MW52-1123	Total/NA	Water	200.8 LL	311057
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	200.8 LL	311057
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	200.8 LL	311057
550-210429-4	FC-CCR-FD03-1123	Total/NA	Water	200.8 LL	311057
MB 550-311057/1-A	Method Blank	Total/NA	Water	200.8 LL	311057
LCS 550-311057/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	311057
LCSD 550-311057/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	311057
550-210429-1 MS	FC-CCR-MW52-1123	Total/NA	Water	200.8 LL	311057
550-210429-1 MSD	FC-CCR-MW52-1123	Total/NA	Water	200.8 LL	311057

Analysis Batch: 311482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-1	FC-CCR-MW52-1123	Total/NA	Water	200.7 Rev 4.4	311064
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	200.7 Rev 4.4	311064
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	200.7 Rev 4.4	311064
550-210429-4	FC-CCR-FD03-1123	Total/NA	Water	200.7 Rev 4.4	311064
MB 550-311064/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	311064
LCS 550-311064/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	311064
LCSD 550-311064/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	311064
550-210429-1 MS	FC-CCR-MW52-1123	Total/NA	Water	200.7 Rev 4.4	311064
550-210429-1 MSD	FC-CCR-MW52-1123	Total/NA	Water	200.7 Rev 4.4	311064

QC Association Summary

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

Job ID: 550-210429-1

Metals

Analysis Batch: 311523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-4	FC-CCR-FD03-1123	Total/NA	Water	200.8 LL	311057
MB 550-311057/1-A	Method Blank	Total/NA	Water	200.8 LL	311057
LCS 550-311057/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	311057
LCSD 550-311057/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	311057
550-210429-1 MS	FC-CCR-MW52-1123	Total/NA	Water	200.8 LL	311057

Analysis Batch: 311591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	200.7 Rev 4.4	311064
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	200.7 Rev 4.4	311064

Prep Batch: 383775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total Recoverable	Water	200.7	
550-210429-3	FC-CCR-MW75-1123	Total Recoverable	Water	200.7	
MB 570-383775/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 570-383775/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 570-383775/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
570-160842-L-8-B MS	Matrix Spike	Total Recoverable	Water	200.7	
570-160842-L-8-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7	

Analysis Batch: 384611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total Recoverable	Water	200.7 Rev 4.4	383775
550-210429-3	FC-CCR-MW75-1123	Total Recoverable	Water	200.7 Rev 4.4	383775
MB 570-383775/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	383775
LCS 570-383775/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	383775
LCSD 570-383775/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	383775
570-160842-L-8-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	383775
570-160842-L-8-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	383775

General Chemistry

Analysis Batch: 311072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	SM 2540C	
MB 550-311072/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-311072/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-311072/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-210340-G-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 311147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	SM 2540C	
MB 550-311147/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-311147/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-311147/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-210428-A-12 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Association Summary

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

Job ID: 550-210429-1

General Chemistry

Analysis Batch: 311195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	SM 2320B	
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	SM 2320B	
MB 550-311195/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-311195/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-311195/8	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-210347-L-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 311239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210429-2	FC-CCR-MW61-1123	Total/NA	Water	SM 4500 H+ B	
550-210429-3	FC-CCR-MW75-1123	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-311239/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-311239/30	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-210429-2 DU	FC-CCR-MW61-1123	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

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

Job ID: 550-210429-1

Client Sample ID: FC-CCR-MW52-1123

Lab Sample ID: 550-210429-1

Date Collected: 11/08/23 14:40

Matrix: Water

Date Received: 11/10/23 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			311064	SGO	EET PHX	11/14/23 10:09
Total/NA	Analysis	200.7 Rev 4.4		1	311482	GLW	EET PHX	11/20/23 16:49
Total/NA	Prep	200.8			311057	SGO	EET PHX	11/14/23 08:56
Total/NA	Analysis	200.8 LL		1	311226	DSJ	EET PHX	11/16/23 00:37

Client Sample ID: FC-CCR-MW61-1123

Lab Sample ID: 550-210429-2

Date Collected: 11/09/23 12:50

Matrix: Water

Date Received: 11/10/23 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311323	MMH	EET PHX	11/17/23 17:12
Total/NA	Analysis	300.0		200	311323	MMH	EET PHX	11/17/23 18:26
Total/NA	Analysis	300.0		20	312090	MMH	EET PHX	11/30/23 21:01
Total Recoverable	Prep	200.7			383775	JP8N	EET CAL 4	11/15/23 07:10
Total Recoverable	Analysis	200.7 Rev 4.4		1	384611	P1R	EET CAL 4	11/16/23 19:30
Total/NA	Prep	200.7			311064	SGO	EET PHX	11/14/23 10:09
Total/NA	Analysis	200.7 Rev 4.4		1	311482	GLW	EET PHX	11/20/23 16:51
Total/NA	Prep	200.7			311064	SGO	EET PHX	11/14/23 10:09
Total/NA	Analysis	200.7 Rev 4.4		5	311591	GLW	EET PHX	11/21/23 12:06
Total/NA	Prep	200.8			311057	SGO	EET PHX	11/14/23 08:56
Total/NA	Analysis	200.8 LL		1	311226	DSJ	EET PHX	11/16/23 00:39
Total/NA	Prep	245.1			311086	HHL	EET PHX	11/14/23 13:28
Total/NA	Analysis	245.1		1	311105	HHL	EET PHX	11/14/23 17:35
Total/NA	Analysis	SM 2320B		1	311195	MAN	EET PHX	11/15/23 16:57
Total/NA	Analysis	SM 2540C		1	311147	KMG	EET PHX	11/15/23 11:03 - 11/21/23 15:28 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311239	MAN	EET PHX	11/15/23 13:46

Client Sample ID: FC-CCR-MW75-1123

Lab Sample ID: 550-210429-3

Date Collected: 11/08/23 15:39

Matrix: Water

Date Received: 11/10/23 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311323	MMH	EET PHX	11/17/23 18:44
Total/NA	Analysis	300.0		200	311323	MMH	EET PHX	11/17/23 19:03
Total/NA	Analysis	9056A		2	312091	MMH	EET PHX	12/01/23 10:12
Total Recoverable	Prep	200.7			383775	JP8N	EET CAL 4	11/15/23 07:10
Total Recoverable	Analysis	200.7 Rev 4.4		1	384611	P1R	EET CAL 4	11/16/23 19:32
Total/NA	Prep	200.7			311064	SGO	EET PHX	11/14/23 10:09
Total/NA	Analysis	200.7 Rev 4.4		1	311482	GLW	EET PHX	11/20/23 16:54
Total/NA	Prep	200.7			311064	SGO	EET PHX	11/14/23 10:09
Total/NA	Analysis	200.7 Rev 4.4		5	311591	GLW	EET PHX	11/21/23 12:09
Total/NA	Prep	200.8			311057	SGO	EET PHX	11/14/23 08:56
Total/NA	Analysis	200.8 LL		1	311226	DSJ	EET PHX	11/16/23 00:41

Lab Chronicle

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

Job ID: 550-210429-1

Client Sample ID: FC-CCR-MW75-1123

Lab Sample ID: 550-210429-3

Date Collected: 11/08/23 15:39

Matrix: Water

Date Received: 11/10/23 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	245.1			311086	HHL	EET PHX	11/14/23 13:28
Total/NA	Analysis	245.1		1	311105	HHL	EET PHX	11/14/23 17:37
Total/NA	Analysis	SM 2320B		1	311195	MAN	EET PHX	11/15/23 17:03
Total/NA	Analysis	SM 2540C		1	311072	KMG	EET PHX	11/14/23 11:18 - 11/20/23 14:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311239	MAN	EET PHX	11/15/23 13:48

Client Sample ID: FC-CCR-FD03-1123

Lab Sample ID: 550-210429-4

Date Collected: 11/08/23 16:11

Matrix: Water

Date Received: 11/10/23 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			311064	SGO	EET PHX	11/14/23 10:09
Total/NA	Analysis	200.7 Rev 4.4		1	311482	GLW	EET PHX	11/20/23 16:57
Total/NA	Prep	200.8			311057	SGO	EET PHX	11/14/23 08:56
Total/NA	Analysis	200.8 LL		1	311226	DSJ	EET PHX	11/16/23 00:43
Total/NA	Prep	200.8			311057	SGO	EET PHX	11/14/23 08:56
Total/NA	Analysis	200.8 LL		4	311523	DSJ	EET PHX	11/20/23 15:15

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-210429-1
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8 LL	200.8	Water	Molybdenum
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Lithium

Method Summary

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

Job ID: 550-210429-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
9056A	Anions, Ion Chromatography	SW846	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET CAL 4
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET CAL 4
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

210429

TestAmerica Laboratories, Inc.

4/10/2024 (Rev. 1)

Client Contact	Natalie Chrisman	Pam Norris (505-598-8781)	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Rachel Sester	Carrier:	1 of 1 COCs
PO Box 355, MS 4915	Analysis Turnaround Time			Sampler:
Fruitland, NM 87416	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			Job / SDG No.:
Site: APS Four Corners Power Plant (Multiunit)	☐ 2 days			
PO #: 100622298	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe)	EPA 200.7 - Total Lithium	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Totals (Co, Mo)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3)	9056A - Fluoride	Sample Specific Notes:
FC-CCR-MW52-1123 -1	11/8/2023	1440	G	W	3	N	Y		X						X						Low Flow, MS/MSD included
FC-CCR-MW61-1123 -2	11/9/2023	1250	G	W	3	N		X			X		X	X		X	X	X	X		Low Flow
FC-CCR-MW75-1123 -3	11/8/2023	1539	G	W	4	N		X			X		X	X		X	X	X	X	X	"
FC-CCR-FD03-1123 -4	11/8/2023	1611	G	W	1	N	N		X						X						"
								1	4	4	4	4	4	4	4	4	1	1	1	1	

550-210429 Chain of Custody

Page 29 of 33

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

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Method 200.8 with collision cell

0.8°C / 2-4°C - ONICE pc

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	11-10-23 1745			
Relinquished by: [signature]	Company: GHS	Date/Time: 11-10-23 17:45	Received by:	Company:	Date/Time:
Relinquished by: [signature]	Company: AHS	Date/Time: 11-10-23 2:28	Received in Laboratory by: [signature]	Company: EETA PHX	Date/Time: 11/10/23 1428


TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Pkt# 159469-434 MTW EXP 04/24
550-210429 Waybill
ORIGIN ID:INWA (602) 437-3340
TESTAMERICA-PHOENIX
TESTAMERICA
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US
SHIP DATE: 13NOV23
ACTWGT: 53.20 LB
CAD: 0875926/CAFE3755
DIMS: 25x13x14 IN
BILL RECIPIENT
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHW
2841 DOW AVENUE, SUITE 100
TUSTIN CA 92780
(714) 895-5494
REF: S550-86981
PO: YES
DEPT: SAMPLE RECEIVING
FedEx Express
TUE - 14 NOV 10:30A
PRIORITY OVERNIGHT
6388 9413 5345
Z DTHA
92780
CA-US SNA
Seal
11-13-23
2264027
eurofins
Environment Testing
TestAmerica

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | E

Loc: 550
210429

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38211.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-210429-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 11/27/2023			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009706			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Lithium	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW61-1123 (550-210429-2)	11/9/23	12:50 Arizona		Water			X	1	
FC-CCR-MW75-1123 (550-210429-3)	11/8/23	15:39 Arizona		Water			X	1	

550-210429 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Ernest 11-13-23	15:15	EGSW	Fedex		
2					11/14/23 0910	
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.6/1.5 542

Ver: 06/08/2021
4/10/2024 (Rev. 1)

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-210429-1

Login Number: 210429
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-210429-1

Login Number: 210429
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 11/14/23 02:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	2264027
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 4/10/2024 8:46:40 AM Revision 1

JOB DESCRIPTION

CCR Groundwater Monitoring
APS Four Corners Power Plant (URS)

JOB NUMBER

550-210593-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

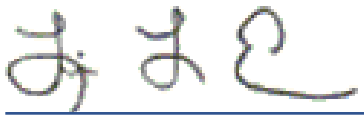
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Revision 1

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Definitions/Glossary

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.

Metals

Qualifier	Qualifier Description
L3	The associated blank spike recovery was above method acceptance limits.
L4	The associated blank spike recovery was below method acceptance limits.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
H1	Sample analysis performed past holding time.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-210593-1 — Eurofins Phoenix

Job Narrative
550-210593-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/15/2023 2:43 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C

HPLC/IC
Method 300_ORGFMS: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for analytical batch 550-311405. The associated laboratory control sample (LCS) met acceptance criteria.

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

Metals
Method 200.8_CWA_LL: Samples were diluted 10x due to matrix

FC-CCR-MW67-1123 (550-210593-1), FC-CCR-MW68-1123 (550-210593-2), FC-CCR-MW69-1123 (550-210593-3), FC-CCR-MW83-1123 (550-210593-4), FC-CCR-MW84-1123 (550-210593-5), FC-CCR-MW85-1123 (550-210593-6), FC-CCR-FD01-1123 (550-210593-7), FC-CCR-CM01-1123 (550-210593-8), FC-CCR-CM02-1123 (550-210593-9), (550-210594-B-12-C), (550-210594-B-12-A MS) and (550-210594-B-12-B MSD)

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

General Chemistry
Method 2540C_Calcd: The following sample was analyzed outside of analytical holding time due to residue being >0.2000 g at 10 mL: FC-CCR-MW67-1123 (550-210593-1).

Method 2540C_Calcd: Reanalysis of the following sample was performed outside of the analytical holding time due to noticeable errors in the bag weights from batch 311341 : FC-CCR-MW84-1123 (550-210593-5).

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

Revision
The report being provided is a revision of the original report sent on 12/6/2023. The report (revision 1) is being revised due to: Client questioned the 9056 result, upon review, it was found that the dilution factor was entered incorrect..

Sample Summary

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-210593-1	FC-CCR-MW67-1123	Water	11/13/23 09:18	11/15/23 14:43
550-210593-2	FC-CCR-MW68-1123	Water	11/11/23 11:28	11/15/23 14:43
550-210593-3	FC-CCR-MW69-1123	Water	11/11/23 10:33	11/15/23 14:43
550-210593-4	FC-CCR-MW83-1123	Water	11/11/23 14:10	11/15/23 14:43
550-210593-5	FC-CCR-MW84-1123	Water	11/11/23 15:53	11/15/23 14:43
550-210593-6	FC-CCR-MW85-1123	Water	11/11/23 15:03	11/15/23 14:43
550-210593-7	FC-CCR-FD01-1123	Water	11/11/23 08:53	11/15/23 14:43
550-210593-8	FC-CCR-CM01-1123	Water	11/13/23 09:41	11/15/23 14:43
550-210593-9	FC-CCR-CM02-1123	Water	11/13/23 09:52	11/15/23 14:43

Detection Summary

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-MW67-1123 — Lab Sample ID: 550-210593-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1800	D2	400		mg/L	200		300.0	Total/NA
Fluoride	13	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	13000	D2	400		mg/L	200		300.0	Total/NA
Fluoride	13		0.80		mg/L	2		9056A	Total/NA
Boron	170		0.25		mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	500		10		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.91		0.50		mg/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0075		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.014		0.0050		mg/L	10		200.8 LL	Total/NA
Cobalt	0.0082		0.0050		mg/L	10		200.8 LL	Total/NA
Molybdenum	0.040	T5	0.0050		mg/L	10		200.8 LL	Total/NA
Thallium	0.0012		0.0010		mg/L	10		200.8 LL	Total/NA
Total Dissolved Solids	20000	D1 H1	200		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW68-1123 — Lab Sample ID: 550-210593-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1500	D2	400		mg/L	200		300.0	Total/NA
Fluoride	13	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	15000	D2	400		mg/L	200		300.0	Total/NA
Fluoride	12		0.80		mg/L	2		9056A	Total/NA
Boron	170		0.25		mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	490		10		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.93		0.50		mg/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0099		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.14		0.0050		mg/L	10		200.8 LL	Total/NA
Cobalt	0.020		0.0050		mg/L	10		200.8 LL	Total/NA
Molybdenum	0.0069	T5	0.0050		mg/L	10		200.8 LL	Total/NA
Selenium	0.0078		0.0050		mg/L	10		200.8 LL	Total/NA
Thallium	0.0018		0.0010		mg/L	10		200.8 LL	Total/NA
Total Dissolved Solids	24000		200		mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW69-1123 — Lab Sample ID: 550-210593-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	920	D2	400		mg/L	200		300.0	Total/NA
Fluoride	4.7	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	5000	D2	400		mg/L	200		300.0	Total/NA
Fluoride	4.7		0.80		mg/L	2		9056A	Total/NA
Boron	57		0.25		mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	560		10		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.33		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0086		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.0061		0.0050		mg/L	10		200.8 LL	Total/NA
Molybdenum	0.0057	T5	0.0050		mg/L	10		200.8 LL	Total/NA
Selenium	0.20		0.0050		mg/L	10		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW69-1123 (Continued) — Lab Sample ID: 550-210593-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	8900		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW83-1123 — Lab Sample ID: 550-210593-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	120	D2	4.0		mg/L	2		300.0	Total/NA
Fluoride	2.1	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	3500	D2	400		mg/L	200		300.0	Total/NA
Boron	2.8		0.25		mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	520		10		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.24		0.050		mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0077		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.011		0.0050		mg/L	10		200.8 LL	Total/NA
Molybdenum	0.0076	T5	0.0050		mg/L	10		200.8 LL	Total/NA
Total Dissolved Solids	620		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.3	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW84-1123 — Lab Sample ID: 550-210593-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	890	D2	400		mg/L	200		300.0	Total/NA
Sulfate	8700	D2	400		mg/L	200		300.0	Total/NA
Boron	66		0.25		mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	530		10		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.47		0.25		mg/L	5		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0077		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.017		0.0050		mg/L	10		200.8 LL	Total/NA
Cobalt	0.0077		0.0050		mg/L	10		200.8 LL	Total/NA
Selenium	0.067		0.0050		mg/L	10		200.8 LL	Total/NA
Total Dissolved Solids	15000	H2	100		mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.1	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW85-1123 — Lab Sample ID: 550-210593-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	630	D2	400		mg/L	200		300.0	Total/NA
Fluoride	1.9	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	5900	D2	400		mg/L	200		300.0	Total/NA
Boron	75		0.25		mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	580		10		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.50		0.10		mg/L	2		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0084		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.017		0.0050		mg/L	10		200.8 LL	Total/NA
Molybdenum	0.0057	T5	0.0050		mg/L	10		200.8 LL	Total/NA
Selenium	0.37		0.0050		mg/L	10		200.8 LL	Total/NA
Total Dissolved Solids	10000		100		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW85-1123 (Continued) — Lab Sample ID: 550-210593-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD01-1123 — Lab Sample ID: 550-210593-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	890	D2	400		mg/L	200		300.0	Total/NA
Sulfate	8800	D2	400		mg/L	200		300.0	Total/NA
Boron	71		0.25		mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	550		10		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.67		0.25		mg/L	5		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0075		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.018		0.0050		mg/L	10		200.8 LL	Total/NA
Cobalt	0.0076		0.0050		mg/L	10		200.8 LL	Total/NA
Selenium	0.067		0.0050		mg/L	10		200.8 LL	Total/NA
Total Dissolved Solids	15000		100		mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-CM01-1123 — Lab Sample ID: 550-210593-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1400	D2	400		mg/L	200		300.0	Total/NA
Fluoride	3.3	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	9100	D2	400		mg/L	200		300.0	Total/NA
Boron	120		0.25		mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	540		10		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.75		0.25		mg/L	5		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0081		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.028		0.0050		mg/L	10		200.8 LL	Total/NA
Cobalt	0.0097		0.0050		mg/L	10		200.8 LL	Total/NA
Molybdenum	0.0053	T5	0.0050		mg/L	10		200.8 LL	Total/NA
Selenium	0.071		0.0050		mg/L	10		200.8 LL	Total/NA
Total Dissolved Solids	16000		100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-CM02-1123 — Lab Sample ID: 550-210593-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1100	D2	400		mg/L	200		300.0	Total/NA
Fluoride	4.2	D2	0.80		mg/L	2		300.0	Total/NA
Sulfate	9200	D2	400		mg/L	200		300.0	Total/NA
Boron	110		0.25		mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	510		10		mg/L	5		200.7 Rev 4.4	Total/NA
Lithium	0.61		0.25		mg/L	5		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0081		0.0050		mg/L	10		200.8 LL	Total/NA
Barium	0.016		0.0050		mg/L	10		200.8 LL	Total/NA
Cobalt	0.0084		0.0050		mg/L	10		200.8 LL	Total/NA
Selenium	0.013		0.0050		mg/L	10		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-CM02-1123 (Continued)

Lab Sample ID: 550-210593-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Thallium	0.0012		0.0010		mg/L	10		200.8 LL	Total/NA
Total Dissolved Solids	15000		100		mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	13.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW67-1123

Lab Sample ID: 550-210593-1
Date Collected: 11/13/23 09:18
Matrix: Water
Date Received: 11/15/23 14:43

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1800**	**D2**	400		mg/L			11/18/23 21:19	200
Fluoride	**13**	**D2**	0.80		mg/L			11/18/23 21:00	2
Sulfate	**13000**	**D2**	400		mg/L			11/18/23 21:19	200

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**13**		0.80		mg/L			12/01/23 09:54	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	L5 V1	0.0050		mg/L		11/21/23 04:37	11/28/23 18:25	5
Boron	**170**		0.25		mg/L		11/21/23 04:37	11/29/23 15:24	5
Calcium	**500**		10		mg/L		11/21/23 04:37	11/28/23 18:25	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.91**		0.50		mg/L		11/21/23 09:32	11/28/23 15:54	10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:37	10
Arsenic	**0.0075**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:37	10
Barium	**0.014**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:37	10
Cadmium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:37	10
Chromium	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:37	10
Cobalt	**0.0082**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:37	10
Lead	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:37	10
Molybdenum	**0.040**	**T5**	0.0050		mg/L		11/21/23 06:58	11/27/23 17:37	10
Selenium	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:37	10
Thallium	**0.0012**		0.0010		mg/L		11/21/23 06:58	11/27/23 17:37	10

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**20000**	**D1 H1**	200		mg/L			11/22/23 18:27	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			11/16/23 14:20	1
Temperature (SM 4500 H+ B)	**10.4**	**H5 T5**	0.1		Degrees C			11/16/23 14:20	1

Client Sample ID: FC-CCR-MW68-1123

Lab Sample ID: 550-210593-2
Date Collected: 11/11/23 11:28
Matrix: Water
Date Received: 11/15/23 14:43

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1500**	**D2**	400		mg/L			11/18/23 21:56	200
Fluoride	**13**	**D2**	0.80		mg/L			11/18/23 21:37	2
Sulfate	**15000**	**D2**	400		mg/L			11/18/23 21:56	200

Client Sample ID: FC-CCR-MW68-1123

Lab Sample ID: 550-210593-2
Date Collected: 11/11/23 11:28
Matrix: Water
Date Received: 11/15/23 14:43

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**12**		0.80		mg/L			12/01/23 05:54	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	L5 V1	0.0050		mg/L		11/21/23 04:37	11/28/23 18:27	5
Boron	**170**		0.25		mg/L		11/21/23 04:37	11/29/23 15:27	5
Calcium	**490**		10		mg/L		11/21/23 04:37	11/28/23 18:27	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.93**		0.50		mg/L		11/21/23 09:32	11/28/23 15:56	10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:39	10
Arsenic	**0.0099**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:39	10
Barium	**0.14**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:39	10
Cadmium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:39	10
Chromium	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:39	10
Cobalt	**0.020**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:39	10
Lead	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:39	10
Molybdenum	**0.0069**	**T5**	0.0050		mg/L		11/21/23 06:58	11/27/23 17:39	10
Selenium	**0.0078**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:39	10
Thallium	**0.0018**		0.0010		mg/L		11/21/23 06:58	11/27/23 17:39	10

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 15:25	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**24000**		200		mg/L			11/17/23 11:54	1
pH (SM 4500 H+ B)	**7.2**	**H5**	1.7		SU			11/16/23 14:23	1
Temperature (SM 4500 H+ B)	**12.2**	**H5 T5**	0.1		Degrees C			11/16/23 14:23	1

Client Sample ID: FC-CCR-MW69-1123

Lab Sample ID: 550-210593-3
Date Collected: 11/11/23 10:33
Matrix: Water
Date Received: 11/15/23 14:43

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**920**	**D2**	400		mg/L			11/18/23 23:28	200
Fluoride	**4.7**	**D2**	0.80		mg/L			11/18/23 22:14	2
Sulfate	**5000**	**D2**	400		mg/L			11/18/23 23:28	200

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**4.7**		0.80		mg/L			12/01/23 10:30	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	L5 V1	0.0050		mg/L		11/21/23 04:37	11/28/23 18:30	5

Client Sample ID: FC-CCR-MW69-1123

Lab Sample ID: 550-210593-3
Date Collected: 11/11/23 10:33
Matrix: Water
Date Received: 11/15/23 14:43

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**57**		0.25		mg/L		11/21/23 04:37	11/29/23 15:30	5
Calcium	**560**		10		mg/L		11/21/23 04:37	11/28/23 18:30	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.33**		0.10		mg/L		11/21/23 09:32	11/28/23 15:59	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:41	10
Arsenic	**0.0086**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:41	10
Barium	**0.0061**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:41	10
Cadmium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:41	10
Chromium	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:41	10
Cobalt	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:41	10
Lead	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:41	10
Molybdenum	**0.0057**	**T5**	0.0050		mg/L		11/21/23 06:58	11/27/23 17:41	10
Selenium	**0.20**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:41	10
Thallium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:41	10

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 15:27	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**8900**		100		mg/L			11/17/23 11:54	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			11/16/23 14:26	1
Temperature (SM 4500 H+ B)	**11.5**	**H5 T5**	0.1		Degrees C			11/16/23 14:26	1

Client Sample ID: FC-CCR-MW83-1123

Lab Sample ID: 550-210593-4
Date Collected: 11/11/23 14:10
Matrix: Water
Date Received: 11/15/23 14:43

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**	**D2**	4.0		mg/L			11/18/23 23:46	2
Fluoride	**2.1**	**D2**	0.80		mg/L			11/18/23 23:46	2
Sulfate	**3500**	**D2**	400		mg/L			11/19/23 00:05	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	L5 V1	0.0050		mg/L		11/21/23 04:37	11/28/23 18:33	5
Boron	**2.8**		0.25		mg/L		11/21/23 04:37	11/29/23 15:32	5
Calcium	**520**		10		mg/L		11/21/23 04:37	11/28/23 18:33	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.24**		0.050		mg/L		11/21/23 09:32	11/28/23 16:01	1

Client Sample ID: FC-CCR-MW83-1123

Lab Sample ID: 550-210593-4

Date Collected: 11/11/23 14:10
Matrix: Water
Date Received: 11/15/23 14:43

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:44	10
Arsenic	**0.0077**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:44	10
Barium	**0.011**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:44	10
Cadmium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:44	10
Chromium	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:44	10
Cobalt	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:44	10
Lead	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:44	10
Molybdenum	**0.0076**	**T5**	0.0050		mg/L		11/21/23 06:58	11/27/23 17:44	10
Selenium	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:44	10
Thallium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:44	10

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**620**		100		mg/L			11/17/23 11:54	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			11/16/23 14:28	1
Temperature (SM 4500 H+ B)	**11.3**	**H5 T5**	0.1		Degrees C			11/16/23 14:28	1

Client Sample ID: FC-CCR-MW84-1123

Lab Sample ID: 550-210593-5

Date Collected: 11/11/23 15:53
Matrix: Water
Date Received: 11/15/23 14:43

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**890**	**D2**	400		mg/L			11/19/23 00:41	200
Fluoride	ND	D2	0.80		mg/L			11/19/23 00:23	2
Sulfate	**8700**	**D2**	400		mg/L			11/19/23 00:41	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	L5 V1	0.0050		mg/L		11/21/23 04:37	11/28/23 18:36	5
Boron	**66**		0.25		mg/L		11/21/23 04:37	11/29/23 15:35	5
Calcium	**530**		10		mg/L		11/21/23 04:37	11/28/23 18:36	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.47**		0.25		mg/L		11/21/23 09:32	11/28/23 16:03	5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:46	10
Arsenic	**0.0077**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:46	10
Barium	**0.017**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:46	10
Cadmium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:46	10
Chromium	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:46	10
Cobalt	**0.0077**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:46	10
Lead	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:46	10
Molybdenum	ND	T5	0.0050		mg/L		11/21/23 06:58	11/27/23 17:46	10

Client Sample ID: FC-CCR-MW84-1123

Lab Sample ID: 550-210593-5
Date Collected: 11/11/23 15:53
Matrix: Water
Date Received: 11/15/23 14:43

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**0.067**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:46	10
Thallium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:46	10

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**15000**	**H2**	100		mg/L			12/04/23 11:23	1
pH (SM 4500 H+ B)	**7.2**	**H5**	1.7		SU			11/16/23 14:31	1
Temperature (SM 4500 H+ B)	**11.1**	**H5 T5**	0.1		Degrees C			11/16/23 14:31	1

Client Sample ID: FC-CCR-MW85-1123

Lab Sample ID: 550-210593-6
Date Collected: 11/11/23 15:03
Matrix: Water
Date Received: 11/15/23 14:43

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**630**	**D2**	400		mg/L			11/19/23 01:18	200
Fluoride	**1.9**	**D2**	0.80		mg/L			11/19/23 01:00	2
Sulfate	**5900**	**D2**	400		mg/L			11/19/23 01:18	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	L4 V1	0.0050		mg/L		11/21/23 04:37	11/28/23 18:44	5
Boron	**75**		0.25		mg/L		11/21/23 04:37	11/29/23 15:44	5
Calcium	**580**		10		mg/L		11/21/23 04:37	11/28/23 18:44	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.50**		0.10		mg/L		11/21/23 09:32	11/28/23 16:06	2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:54	10
Arsenic	**0.0084**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:54	10
Barium	**0.017**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:54	10
Cadmium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:54	10
Chromium	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:54	10
Cobalt	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:54	10
Lead	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:54	10
Molybdenum	**0.0057**	**T5**	0.0050		mg/L		11/21/23 06:58	11/27/23 17:54	10
Selenium	**0.37**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:54	10
Thallium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:54	10

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 15:33	1

Client Sample ID: FC-CCR-MW85-1123

Lab Sample ID: 550-210593-6
Date Collected: 11/11/23 15:03
Matrix: Water
Date Received: 11/15/23 14:43

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**10000**		100		mg/L			11/17/23 11:54	1
pH (SM 4500 H+ B)	**7.2**	**H5**	1.7		SU			11/16/23 14:33	1
Temperature (SM 4500 H+ B)	**10.6**	**H5 T5**	0.1		Degrees C			11/16/23 14:33	1

Client Sample ID: FC-CCR-FD01-1123

Lab Sample ID: 550-210593-7
Date Collected: 11/11/23 08:53
Matrix: Water
Date Received: 11/15/23 14:43

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**890**	**D2**	400		mg/L			11/19/23 01:55	200
Fluoride	ND	D2	0.80		mg/L			11/19/23 01:37	2
Sulfate	**8800**	**D2**	400		mg/L			11/19/23 01:55	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	L5 V1	0.0050		mg/L		11/21/23 04:37	11/28/23 18:47	5
Boron	**71**		0.25		mg/L		11/21/23 04:37	11/29/23 15:47	5
Calcium	**550**		10		mg/L		11/21/23 04:37	11/28/23 18:47	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.67**		0.25		mg/L		11/21/23 09:32	11/28/23 16:08	5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:56	10
Arsenic	**0.0075**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:56	10
Barium	**0.018**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:56	10
Cadmium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:56	10
Chromium	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:56	10
Cobalt	**0.0076**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:56	10
Lead	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:56	10
Molybdenum	ND	T5	0.0050		mg/L		11/21/23 06:58	11/27/23 17:56	10
Selenium	**0.067**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:56	10
Thallium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:56	10

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 15:41	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**15000**		100		mg/L			11/17/23 11:54	1
pH (SM 4500 H+ B)	**7.2**	**H5**	1.7		SU			11/16/23 14:35	1
Temperature (SM 4500 H+ B)	**10.7**	**H5 T5**	0.1		Degrees C			11/16/23 14:35	1

Client Sample ID: FC-CCR-CM01-1123

Lab Sample ID: 550-210593-8

Date Collected: 11/13/23 09:41
Matrix: Water
Date Received: 11/15/23 14:43

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1400**	**D2**	400		mg/L			11/19/23 03:27	200
Fluoride	**3.3**	**D2**	0.80		mg/L			11/19/23 03:09	2
Sulfate	**9100**	**D2**	400		mg/L			11/19/23 03:27	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	L5 V1	0.0050		mg/L		11/21/23 04:37	11/28/23 18:50	5
Boron	**120**		0.25		mg/L		11/21/23 04:37	11/29/23 15:49	5
Calcium	**540**		10		mg/L		11/21/23 04:37	11/28/23 18:50	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.75**		0.25		mg/L		11/21/23 09:32	11/28/23 16:11	5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:58	10
Arsenic	**0.0081**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:58	10
Barium	**0.028**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:58	10
Cadmium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:58	10
Chromium	ND		0.010		mg/L		11/21/23 06:58	11/27/23 17:58	10
Cobalt	**0.0097**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:58	10
Lead	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 17:58	10
Molybdenum	**0.0053**	**T5**	0.0050		mg/L		11/21/23 06:58	11/27/23 17:58	10
Selenium	**0.071**		0.0050		mg/L		11/21/23 06:58	11/27/23 17:58	10
Thallium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:58	10

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**16000**		100		mg/L			11/20/23 12:18	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			11/16/23 14:36	1
Temperature (SM 4500 H+ B)	**11.5**	**H5 T5**	0.1		Degrees C			11/16/23 14:36	1

Client Sample ID: FC-CCR-CM02-1123

Lab Sample ID: 550-210593-9

Date Collected: 11/13/23 09:52
Matrix: Water
Date Received: 11/15/23 14:43

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1100**	**D2**	400		mg/L			11/19/23 04:04	200
Fluoride	**4.2**	**D2**	0.80		mg/L			11/19/23 03:45	2
Sulfate	**9200**	**D2**	400		mg/L			11/19/23 04:04	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	L5 V1	0.0050		mg/L		11/21/23 04:37	11/28/23 18:53	5
Boron	**110**		0.25		mg/L		11/21/23 04:37	11/29/23 15:52	5

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-CM02-1123

Date Collected: 11/13/23 09:52
Date Received: 11/15/23 14:43

Lab Sample ID: 550-210593-9

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**510**		10		mg/L		11/21/23 04:37	11/28/23 18:53	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.61**		0.25		mg/L		11/21/23 09:32	11/28/23 16:13	5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/21/23 06:58	11/27/23 18:00	10
Arsenic	**0.0081**		0.0050		mg/L		11/21/23 06:58	11/27/23 18:00	10
Barium	**0.016**		0.0050		mg/L		11/21/23 06:58	11/27/23 18:00	10
Cadmium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 18:00	10
Chromium	ND		0.010		mg/L		11/21/23 06:58	11/27/23 18:00	10
Cobalt	**0.0084**		0.0050		mg/L		11/21/23 06:58	11/27/23 18:00	10
Lead	ND		0.0050		mg/L		11/21/23 06:58	11/27/23 18:00	10
Molybdenum	ND	T5	0.0050		mg/L		11/21/23 06:58	11/27/23 18:00	10
Selenium	**0.013**		0.0050		mg/L		11/21/23 06:58	11/27/23 18:00	10
Thallium	**0.0012**		0.0010		mg/L		11/21/23 06:58	11/27/23 18:00	10

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 15:45	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**15000**		100		mg/L			11/20/23 12:18	1
pH (SM 4500 H+ B)	**7.0**	**H5**	1.7		SU			11/16/23 14:41	1
Temperature (SM 4500 H+ B)	**13.0**	**H5 T5**	0.1		Degrees C			11/16/23 14:41	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-311405/2
Matrix: Water
Analysis Batch: 311405

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			11/18/23 18:15	1
Fluoride	ND		0.40		mg/L			11/18/23 18:15	1
Sulfate	ND		2.0		mg/L			11/18/23 18:15	1

Lab Sample ID: LCS 550-311405/5
Matrix: Water
Analysis Batch: 311405

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	21.0		mg/L		105	90 - 110		
Fluoride			4.00	4.32		mg/L		108	90 - 110		
Sulfate			20.0	21.2		mg/L		106	90 - 110		

Lab Sample ID: LCSD 550-311405/6
Matrix: Water
Analysis Batch: 311405

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	21.1		mg/L		105	90 - 110	0	20
Fluoride			4.00	4.34		mg/L		109	90 - 110	0	20
Sulfate			20.0	21.3		mg/L		106	90 - 110	0	20

Lab Sample ID: 550-210592-I-4 MS ^10
Matrix: Water
Analysis Batch: 311405

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	140	M2	200	140	M2	mg/L		1	80 - 120		
Fluoride	ND	M2	40.0	ND	M2	mg/L		-0.2	80 - 120		
Sulfate	170	M2	200	176	M2	mg/L		1	80 - 120		

Lab Sample ID: 550-210592-I-4 MSD ^10
Matrix: Water
Analysis Batch: 311405

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	140	M2	200	140	M2	mg/L		1	80 - 120	0	20
Fluoride	ND	M2	40.0	ND	M2	mg/L		-0.1	80 - 120	2	20
Sulfate	170	M2	200	177	M2	mg/L		2	80 - 120	1	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 550-312000/1-A
Matrix: Water
Analysis Batch: 312091

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		4.0		mg/L			12/01/23 03:09	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 550-312091/2
Matrix: Water
Analysis Batch: 312091

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			11/30/23 16:06	1

Lab Sample ID: LCS 550-312000/2-A
Matrix: Water
Analysis Batch: 312091

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			39.7	41.1		mg/L		103	80 - 120		

Lab Sample ID: LCSD 550-312000/3-A
Matrix: Water
Analysis Batch: 312091

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride			39.8	42.2		mg/L		106	80 - 120	3	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-311484/1-A
Matrix: Water
Analysis Batch: 311842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311484

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	V1	0.0010		mg/L		11/21/23 04:37	11/28/23 17:56	1
Calcium	ND		2.0		mg/L		11/21/23 04:37	11/28/23 17:56	1

Lab Sample ID: MB 550-311484/1-A
Matrix: Water
Analysis Batch: 311929

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311484

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		11/21/23 04:37	11/29/23 14:55	1

Lab Sample ID: LCS 550-311484/2-A
Matrix: Water
Analysis Batch: 311842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311484

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	1.22	L3 V1	mg/L		122	85 - 115		
Calcium			21.0	23.2		mg/L		111	85 - 115		

Lab Sample ID: LCS 550-311484/2-A
Matrix: Water
Analysis Batch: 311929

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311484

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	0.944		mg/L		94	85 - 115		

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

Lab Sample ID: LCSD 550-311484/3-A
Matrix: Water
Analysis Batch: 311842

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 311484

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium			1.00	1.16	L3 V1	mg/L		116	85 - 115	5	20
Calcium			21.0	22.2		mg/L		106	85 - 115	5	20

Lab Sample ID: LCSD 550-311484/3-A
Matrix: Water
Analysis Batch: 311929

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 311484

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron			1.00	0.977		mg/L		98	85 - 115	3	20

Lab Sample ID: 550-210594-B-1-A MS
Matrix: Water
Analysis Batch: 311842

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 311484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium	ND	V1 L3	1.00	1.18	V1	mg/L		118	70 - 130		
Calcium	520	M3	21.0	497	M3	mg/L		1869	70 - 130		

Lab Sample ID: 550-210594-B-1-A MS ^5
Matrix: Water
Analysis Batch: 311929

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 311484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	90	M3	1.00	82.4	M3	mg/L		-801	70 - 130		

Lab Sample ID: 550-210594-B-1-B MSD
Matrix: Water
Analysis Batch: 311842

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 311484

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	ND	V1 L3	1.00	1.23	V1	mg/L		123	70 - 130	4	20
Calcium	520	M3	21.0	524	M3	mg/L		1998	70 - 130	5	20

Lab Sample ID: 550-210594-B-1-B MSD ^5
Matrix: Water
Analysis Batch: 311929

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 311484

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	90	M3	1.00	88.5	M3	mg/L		-187	70 - 130	7	20

Lab Sample ID: MB 570-385879/1-A
Matrix: Water
Analysis Batch: 387424

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 385879

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		0.050		mg/L		11/21/23 09:32	11/28/23 15:21	1

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

Lab Sample ID: LCS 570-385879/27-A
Matrix: Water
Analysis Batch: 387424

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 385879

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			0.500	0.551		mg/L		110	85 - 115		

Lab Sample ID: LCSD 570-385879/28-A
Matrix: Water
Analysis Batch: 387424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 385879

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium			0.500	0.546		mg/L		109	85 - 115	1	20

Lab Sample ID: 570-161517-A-1-D MS
Matrix: Water
Analysis Batch: 387424

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 385879

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium	ND		0.500	0.568		mg/L		105	80 - 120		

Lab Sample ID: 570-161517-A-1-E MSD
Matrix: Water
Analysis Batch: 387424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 385879

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	ND		0.500	0.579		mg/L		107	80 - 120	2	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-311487/1-A
Matrix: Water
Analysis Batch: 311751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311487

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:13	1
Arsenic	ND		0.00050		mg/L		11/21/23 06:58	11/27/23 17:13	1
Barium	ND		0.00050		mg/L		11/21/23 06:58	11/27/23 17:13	1
Cadmium	ND		0.00010		mg/L		11/21/23 06:58	11/27/23 17:13	1
Chromium	ND		0.0010		mg/L		11/21/23 06:58	11/27/23 17:13	1
Cobalt	ND		0.00050		mg/L		11/21/23 06:58	11/27/23 17:13	1
Lead	ND		0.00050		mg/L		11/21/23 06:58	11/27/23 17:13	1
Molybdenum	ND		0.00050		mg/L		11/21/23 06:58	11/27/23 17:13	1
Selenium	ND		0.00050		mg/L		11/21/23 06:58	11/27/23 17:13	1
Thallium	ND		0.00010		mg/L		11/21/23 06:58	11/27/23 17:13	1

Lab Sample ID: LCS 550-311487/2-A
Matrix: Water
Analysis Batch: 311751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311487

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.100		mg/L		100	85 - 115		
Arsenic			0.100	0.101		mg/L		101	85 - 115		
Barium			0.100	0.110		mg/L		110	85 - 115		
Cadmium			0.100	0.104		mg/L		104	85 - 115		

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

Lab Sample ID: LCS 550-311487/2-A
Matrix: Water
Analysis Batch: 311751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311487

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chromium			0.100	0.101		mg/L		101	85 - 115		
Cobalt			0.100	0.107		mg/L		107	85 - 115		
Lead			0.100	0.102		mg/L		102	85 - 115		
Molybdenum			0.100	0.108		mg/L		108	85 - 115		
Selenium			0.100	0.0951		mg/L		95	85 - 115		
Thallium			0.100	0.104		mg/L		104	85 - 115		

Lab Sample ID: LCSD 550-311487/3-A
Matrix: Water
Analysis Batch: 311751

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 311487

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.105		mg/L		105	85 - 115	4	20
Arsenic			0.100	0.102		mg/L		102	85 - 115	1	20
Barium			0.100	0.113		mg/L		113	85 - 115	3	20
Cadmium			0.100	0.105		mg/L		105	85 - 115	1	20
Chromium			0.100	0.103		mg/L		103	85 - 115	1	20
Cobalt			0.100	0.104		mg/L		104	85 - 115	2	20
Lead			0.100	0.106		mg/L		106	85 - 115	5	20
Molybdenum			0.100	0.110		mg/L		110	85 - 115	2	20
Selenium			0.100	0.0962		mg/L		96	85 - 115	1	20
Thallium			0.100	0.107		mg/L		107	85 - 115	3	20

Lab Sample ID: 550-210594-B-12-A MS
Matrix: Water
Analysis Batch: 311751

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 311487

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND		0.100	0.107		mg/L		107	70 - 130		
Arsenic	0.0063		0.100	0.116		mg/L		109	70 - 130		
Barium	0.017		0.100	0.123		mg/L		106	70 - 130		
Cadmium	ND		0.100	0.102		mg/L		102	70 - 130		
Chromium	ND		0.100	0.104		mg/L		104	70 - 130		
Cobalt	ND		0.100	0.108		mg/L		107	70 - 130		
Lead	ND		0.100	0.0980		mg/L		98	70 - 130		
Molybdenum	ND		0.100	0.115		mg/L		111	70 - 130		
Selenium	0.040		0.100	0.152		mg/L		112	70 - 130		
Thallium	0.0010		0.100	0.101		mg/L		100	70 - 130		

Lab Sample ID: 550-210594-B-12-B MSD
Matrix: Water
Analysis Batch: 311751

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 311487

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.107		mg/L		106	70 - 130	0	20
Arsenic	0.0063		0.100	0.113		mg/L		107	70 - 130	2	20
Barium	0.017		0.100	0.125		mg/L		109	70 - 130	2	20
Cadmium	ND		0.100	0.102		mg/L		102	70 - 130	0	20
Chromium	ND		0.100	0.103		mg/L		103	70 - 130	1	20

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

Lab Sample ID: 550-210594-B-12-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311751 — **Prep Batch: 311487**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	ND		0.100	0.105		mg/L		104	70 - 130	3	20
Lead	ND		0.100	0.0947		mg/L		95	70 - 130	3	20
Molybdenum	ND		0.100	0.116		mg/L		111	70 - 130	0	20
Selenium	0.040		0.100	0.147		mg/L		107	70 - 130	3	20
Thallium	0.0010		0.100	0.0980		mg/L		97	70 - 130	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-311424/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311470 — **Prep Batch: 311424**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/20/23 11:20	11/20/23 14:47	1

Lab Sample ID: LCS 550-311424/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311470 — **Prep Batch: 311424**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00452		mg/L		90	85 - 115		

Lab Sample ID: LCSD 550-311424/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311470 — **Prep Batch: 311424**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00451		mg/L		90	85 - 115	0	20

Lab Sample ID: 550-210591-B-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311470 — **Prep Batch: 311424**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00465		mg/L		93	70 - 130	2	20

Lab Sample ID: 550-210593-6 MS — **Client Sample ID: FC-CCR-MW85-1123**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311470 — **Prep Batch: 311424**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00557		mg/L		111	70 - 130		

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

Lab Sample ID: MB 550-311341/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311341

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			11/17/23 11:54	1

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

Lab Sample ID: LCS 550-311341/2
Matrix: Water
Analysis Batch: 311341

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	990		mg/L		99	90 - 110		

Lab Sample ID: LCSD 550-311341/3
Matrix: Water
Analysis Batch: 311341

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	994		mg/L		99	90 - 110	0	10

Lab Sample ID: 550-210497-A-1 DU
Matrix: Water
Analysis Batch: 311341

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1400			1370		mg/L				0.9	10

Lab Sample ID: MB 550-311443/1
Matrix: Water
Analysis Batch: 311443

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			11/20/23 12:18	1

Lab Sample ID: LCS 550-311443/2
Matrix: Water
Analysis Batch: 311443

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	994		mg/L		99	90 - 110		

Lab Sample ID: LCSD 550-311443/3
Matrix: Water
Analysis Batch: 311443

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	982		mg/L		98	90 - 110	1	10

Lab Sample ID: 550-210523-B-3 DU
Matrix: Water
Analysis Batch: 311443

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	300			302		mg/L				0.7	10

Lab Sample ID: MB 550-311666/1
Matrix: Water
Analysis Batch: 311666

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			11/22/23 18:27	1

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

Lab Sample ID: LCS 550-311666/2
Matrix: Water
Analysis Batch: 311666

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	920		mg/L		92	90 - 110		

Lab Sample ID: LCSD 550-311666/3
Matrix: Water
Analysis Batch: 311666

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	924		mg/L		92	90 - 110	0	10

Lab Sample ID: 550-210673-F-2 DU
Matrix: Water
Analysis Batch: 311666

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	160			154		mg/L				NC	10

Lab Sample ID: MB 550-312162/1
Matrix: Water
Analysis Batch: 312162

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			12/04/23 11:23	1

Lab Sample ID: LCS 550-312162/2
Matrix: Water
Analysis Batch: 312162

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	992		mg/L		99	90 - 110		

Lab Sample ID: LCSD 550-312162/3
Matrix: Water
Analysis Batch: 312162

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1010		mg/L		101	90 - 110	2	10

Lab Sample ID: 550-210593-5 DU
Matrix: Water
Analysis Batch: 312162

Client Sample ID: FC-CCR-MW84-1123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	15000	H2		15000		mg/L				0.07	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-311288/25
Matrix: Water
Analysis Batch: 311288

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.4	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-311288/37
Matrix: Water
Analysis Batch: 311288

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.6	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-311288/49
Matrix: Water
Analysis Batch: 311288

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.1		SU		100.7	98.5 - 101.5		

Lab Sample ID: 550-210593-9 DU
Matrix: Water
Analysis Batch: 311288

Client Sample ID: FC-CCR-CM02-1123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.0	H5		7.0		SU				0	5
Temperature	13.0	H5 T5		12.9		Degrees C				0.8	

HPLC/IC

Analysis Batch: 311405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	300.0	
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	300.0	
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	300.0	
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	300.0	
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	300.0	
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	300.0	
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	300.0	
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	300.0	
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	300.0	
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	300.0	
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	300.0	
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	300.0	
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	300.0	
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	300.0	
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	300.0	
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	300.0	
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	300.0	
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	300.0	
MB 550-311405/2	Method Blank	Total/NA	Water	300.0	
LCS 550-311405/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-311405/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-210592-I-4 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-210592-I-4 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Leach Batch: 312000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-312000/1-A	Method Blank	Total/NA	Water	DI Leach	
LCS 550-312000/2-A	Lab Control Sample	Total/NA	Water	DI Leach	
LCSD 550-312000/3-A	Lab Control Sample Dup	Total/NA	Water	DI Leach	

Analysis Batch: 312091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	9056A	
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	9056A	
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	9056A	
MB 550-312000/1-A	Method Blank	Total/NA	Water	9056A	312000
MB 550-312091/2	Method Blank	Total/NA	Water	9056A	
LCS 550-312000/2-A	Lab Control Sample	Total/NA	Water	9056A	312000
LCSD 550-312000/3-A	Lab Control Sample Dup	Total/NA	Water	9056A	312000

Metals

Prep Batch: 311424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	245.1	
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	245.1	
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	245.1	
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	245.1	
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	245.1	
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	245.1	
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	245.1	

Metals (Continued)

Prep Batch: 311424 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	245.1	
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	245.1	
MB 550-311424/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-311424/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-311424/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-210591-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
550-210593-6 MS	FC-CCR-MW85-1123	Total/NA	Water	245.1	

Analysis Batch: 311470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	245.1	311424
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	245.1	311424
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	245.1	311424
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	245.1	311424
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	245.1	311424
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	245.1	311424
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	245.1	311424
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	245.1	311424
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	245.1	311424
MB 550-311424/1-A	Method Blank	Total/NA	Water	245.1	311424
LCS 550-311424/2-A	Lab Control Sample	Total/NA	Water	245.1	311424
LCSD 550-311424/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	311424
550-210591-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	311424
550-210593-6 MS	FC-CCR-MW85-1123	Total/NA	Water	245.1	311424

Prep Batch: 311484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	200.7	
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	200.7	
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	200.7	
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	200.7	
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	200.7	
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	200.7	
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	200.7	
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	200.7	
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	200.7	
MB 550-311484/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-311484/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-311484/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-210594-B-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-210594-B-1-A MS ^5	Matrix Spike	Total/NA	Water	200.7	
550-210594-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-210594-B-1-B MSD ^5	Matrix Spike Duplicate	Total/NA	Water	200.7	

Prep Batch: 311487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	200.8	
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	200.8	
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	200.8	
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	200.8	
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 311487 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	200.8	
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	200.8	
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	200.8	
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	200.8	
MB 550-311487/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-311487/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-311487/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-210594-B-12-A MS	Matrix Spike	Total/NA	Water	200.8	
550-210594-B-12-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Analysis Batch: 311751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	200.8 LL	311487
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	200.8 LL	311487
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	200.8 LL	311487
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	200.8 LL	311487
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	200.8 LL	311487
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	200.8 LL	311487
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	200.8 LL	311487
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	200.8 LL	311487
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	200.8 LL	311487
MB 550-311487/1-A	Method Blank	Total/NA	Water	200.8 LL	311487
LCS 550-311487/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	311487
LCSD 550-311487/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	311487
550-210594-B-12-A MS	Matrix Spike	Total/NA	Water	200.8 LL	311487
550-210594-B-12-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	311487

Analysis Batch: 311842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	200.7 Rev 4.4	311484
MB 550-311484/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	311484
LCS 550-311484/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	311484
LCSD 550-311484/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	311484
550-210594-B-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	311484
550-210594-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	311484

Analysis Batch: 311929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	200.7 Rev 4.4	311484

Metals (Continued)

Analysis Batch: 311929 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	200.7 Rev 4.4	311484
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	200.7 Rev 4.4	311484
MB 550-311484/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	311484
LCS 550-311484/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	311484
LCSD 550-311484/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	311484
550-210594-B-1-A MS ^5	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	311484
550-210594-B-1-B MSD ^5	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	311484

Prep Batch: 385879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total Recoverable	Water	200.7	
550-210593-2	FC-CCR-MW68-1123	Total Recoverable	Water	200.7	
550-210593-3	FC-CCR-MW69-1123	Total Recoverable	Water	200.7	
550-210593-4	FC-CCR-MW83-1123	Total Recoverable	Water	200.7	
550-210593-5	FC-CCR-MW84-1123	Total Recoverable	Water	200.7	
550-210593-6	FC-CCR-MW85-1123	Total Recoverable	Water	200.7	
550-210593-7	FC-CCR-FD01-1123	Total Recoverable	Water	200.7	
550-210593-8	FC-CCR-CM01-1123	Total Recoverable	Water	200.7	
550-210593-9	FC-CCR-CM02-1123	Total Recoverable	Water	200.7	
MB 570-385879/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 570-385879/27-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 570-385879/28-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
570-161517-A-1-D MS	Matrix Spike	Total Recoverable	Water	200.7	
570-161517-A-1-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7	

Analysis Batch: 387424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total Recoverable	Water	200.7 Rev 4.4	385879
550-210593-2	FC-CCR-MW68-1123	Total Recoverable	Water	200.7 Rev 4.4	385879
550-210593-3	FC-CCR-MW69-1123	Total Recoverable	Water	200.7 Rev 4.4	385879
550-210593-4	FC-CCR-MW83-1123	Total Recoverable	Water	200.7 Rev 4.4	385879
550-210593-5	FC-CCR-MW84-1123	Total Recoverable	Water	200.7 Rev 4.4	385879
550-210593-6	FC-CCR-MW85-1123	Total Recoverable	Water	200.7 Rev 4.4	385879
550-210593-7	FC-CCR-FD01-1123	Total Recoverable	Water	200.7 Rev 4.4	385879
550-210593-8	FC-CCR-CM01-1123	Total Recoverable	Water	200.7 Rev 4.4	385879
550-210593-9	FC-CCR-CM02-1123	Total Recoverable	Water	200.7 Rev 4.4	385879
MB 570-385879/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	385879
LCS 570-385879/27-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	385879
LCSD 570-385879/28-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	385879
570-161517-A-1-D MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	385879
570-161517-A-1-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	385879

General Chemistry

Analysis Batch: 311288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	SM 4500 H+ B	
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	SM 4500 H+ B	
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 311288 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	SM 4500 H+ B	
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	SM 4500 H+ B	
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	SM 4500 H+ B	
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	SM 4500 H+ B	
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	SM 4500 H+ B	
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-311288/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-311288/37	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-311288/49	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-210593-9 DU	FC-CCR-CM02-1123	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 311341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-2	FC-CCR-MW68-1123	Total/NA	Water	SM 2540C	
550-210593-3	FC-CCR-MW69-1123	Total/NA	Water	SM 2540C	
550-210593-4	FC-CCR-MW83-1123	Total/NA	Water	SM 2540C	
550-210593-6	FC-CCR-MW85-1123	Total/NA	Water	SM 2540C	
550-210593-7	FC-CCR-FD01-1123	Total/NA	Water	SM 2540C	
MB 550-311341/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-311341/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-311341/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-210497-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 311443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-8	FC-CCR-CM01-1123	Total/NA	Water	SM 2540C	
550-210593-9	FC-CCR-CM02-1123	Total/NA	Water	SM 2540C	
MB 550-311443/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-311443/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-311443/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-210523-B-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 311666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-1	FC-CCR-MW67-1123	Total/NA	Water	SM 2540C	
MB 550-311666/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-311666/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-311666/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-210673-F-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 312162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-210593-5	FC-CCR-MW84-1123	Total/NA	Water	SM 2540C	
MB 550-312162/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-312162/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-312162/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-210593-5 DU	FC-CCR-MW84-1123	Total/NA	Water	SM 2540C	

Lab Chronicle

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-MW67-1123

Date Collected: 11/13/23 09:18
Date Received: 11/15/23 14:43

Lab Sample ID: 550-210593-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311405	MMH	EET PHX	11/18/23 21:00
Total/NA	Analysis	300.0		200	311405	MMH	EET PHX	11/18/23 21:19
Total/NA	Analysis	9056A		2	312091	MMH	EET PHX	12/01/23 09:54
Total Recoverable	Prep	200.7			385879	JP8N	EET CAL 4	11/21/23 09:32
Total Recoverable	Analysis	200.7 Rev 4.4		10	387424	P1R	EET CAL 4	11/28/23 15:54
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311842	GLW	EET PHX	11/28/23 18:25
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311929	GLW	EET PHX	11/29/23 15:24
Total/NA	Prep	200.8			311487	SGO	EET PHX	11/21/23 06:58
Total/NA	Analysis	200.8 LL		10	311751	DSJ	EET PHX	11/27/23 17:37
Total/NA	Prep	245.1			311424	HHL	EET PHX	11/20/23 11:20
Total/NA	Analysis	245.1		1	311470	HHL	EET PHX	11/20/23 15:23
Total/NA	Analysis	SM 2540C		1	311666	KMG	EET PHX	11/22/23 18:27 - 12/01/23 15:24 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311288	MAN	EET PHX	11/16/23 14:20

Client Sample ID: FC-CCR-MW68-1123

Date Collected: 11/11/23 11:28
Date Received: 11/15/23 14:43

Lab Sample ID: 550-210593-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311405	MMH	EET PHX	11/18/23 21:37
Total/NA	Analysis	300.0		200	311405	MMH	EET PHX	11/18/23 21:56
Total/NA	Analysis	9056A		2	312091	MMH	EET PHX	12/01/23 05:54
Total Recoverable	Prep	200.7			385879	JP8N	EET CAL 4	11/21/23 09:32
Total Recoverable	Analysis	200.7 Rev 4.4		10	387424	P1R	EET CAL 4	11/28/23 15:56
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311842	GLW	EET PHX	11/28/23 18:27
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311929	GLW	EET PHX	11/29/23 15:27
Total/NA	Prep	200.8			311487	SGO	EET PHX	11/21/23 06:58
Total/NA	Analysis	200.8 LL		10	311751	DSJ	EET PHX	11/27/23 17:39
Total/NA	Prep	245.1			311424	HHL	EET PHX	11/20/23 11:20
Total/NA	Analysis	245.1		1	311470	HHL	EET PHX	11/20/23 15:25
Total/NA	Analysis	SM 2540C		1	311341	KMG	EET PHX	11/17/23 11:54 - 12/01/23 16:42 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311288	MAN	EET PHX	11/16/23 14:23

Client Sample ID: FC-CCR-MW69-1123

Date Collected: 11/11/23 10:33
Date Received: 11/15/23 14:43

Lab Sample ID: 550-210593-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311405	MMH	EET PHX	11/18/23 22:14
Total/NA	Analysis	300.0		200	311405	MMH	EET PHX	11/18/23 23:28

Client Sample ID: FC-CCR-MW69-1123

Date Collected: 11/11/23 10:33
Date Received: 11/15/23 14:43

Lab Sample ID: 550-210593-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		2	312091	MMH	EET PHX	12/01/23 10:30
Total Recoverable	Prep	200.7			385879	JP8N	EET CAL 4	11/21/23 09:32
Total Recoverable	Analysis	200.7 Rev 4.4		2	387424	P1R	EET CAL 4	11/28/23 15:59
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311842	GLW	EET PHX	11/28/23 18:30
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311929	GLW	EET PHX	11/29/23 15:30
Total/NA	Prep	200.8			311487	SGO	EET PHX	11/21/23 06:58
Total/NA	Analysis	200.8 LL		10	311751	DSJ	EET PHX	11/27/23 17:41
Total/NA	Prep	245.1			311424	HHL	EET PHX	11/20/23 11:20
Total/NA	Analysis	245.1		1	311470	HHL	EET PHX	11/20/23 15:27
Total/NA	Analysis	SM 2540C		1	311341	KMG	EET PHX	11/17/23 11:54 - 12/01/23 16:42 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311288	MAN	EET PHX	11/16/23 14:26

Client Sample ID: FC-CCR-MW83-1123

Date Collected: 11/11/23 14:10
Date Received: 11/15/23 14:43

Lab Sample ID: 550-210593-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311405	MMH	EET PHX	11/18/23 23:46
Total/NA	Analysis	300.0		200	311405	MMH	EET PHX	11/19/23 00:05
Total Recoverable	Prep	200.7			385879	JP8N	EET CAL 4	11/21/23 09:32
Total Recoverable	Analysis	200.7 Rev 4.4		1	387424	P1R	EET CAL 4	11/28/23 16:01
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311842	GLW	EET PHX	11/28/23 18:33
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311929	GLW	EET PHX	11/29/23 15:32
Total/NA	Prep	200.8			311487	SGO	EET PHX	11/21/23 06:58
Total/NA	Analysis	200.8 LL		10	311751	DSJ	EET PHX	11/27/23 17:44
Total/NA	Prep	245.1			311424	HHL	EET PHX	11/20/23 11:20
Total/NA	Analysis	245.1		1	311470	HHL	EET PHX	11/20/23 15:29
Total/NA	Analysis	SM 2540C		1	311341	KMG	EET PHX	11/17/23 11:54 - 12/01/23 16:42 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311288	MAN	EET PHX	11/16/23 14:28

Client Sample ID: FC-CCR-MW84-1123

Date Collected: 11/11/23 15:53
Date Received: 11/15/23 14:43

Lab Sample ID: 550-210593-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311405	MMH	EET PHX	11/19/23 00:23
Total/NA	Analysis	300.0		200	311405	MMH	EET PHX	11/19/23 00:41
Total Recoverable	Prep	200.7			385879	JP8N	EET CAL 4	11/21/23 09:32
Total Recoverable	Analysis	200.7 Rev 4.4		5	387424	P1R	EET CAL 4	11/28/23 16:03

Lab Chronicle

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-MW84-1123

Lab Sample ID: 550-210593-5

Date Collected: 11/11/23 15:53
Matrix: Water
Date Received: 11/15/23 14:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311842	GLW	EET PHX	11/28/23 18:36
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311929	GLW	EET PHX	11/29/23 15:35
Total/NA	Prep	200.8			311487	SGO	EET PHX	11/21/23 06:58
Total/NA	Analysis	200.8 LL		10	311751	DSJ	EET PHX	11/27/23 17:46
Total/NA	Prep	245.1			311424	HHL	EET PHX	11/20/23 11:20
Total/NA	Analysis	245.1		1	311470	HHL	EET PHX	11/20/23 15:31
Total/NA	Analysis	SM 2540C		1	312162	KMG	EET PHX	12/04/23 11:23 - 12/06/23 13:15 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311288	MAN	EET PHX	11/16/23 14:31

Client Sample ID: FC-CCR-MW85-1123

Lab Sample ID: 550-210593-6

Date Collected: 11/11/23 15:03
Matrix: Water
Date Received: 11/15/23 14:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311405	MMH	EET PHX	11/19/23 01:00
Total/NA	Analysis	300.0		200	311405	MMH	EET PHX	11/19/23 01:18
Total Recoverable	Prep	200.7			385879	JP8N	EET CAL 4	11/21/23 09:32
Total Recoverable	Analysis	200.7 Rev 4.4		2	387424	P1R	EET CAL 4	11/28/23 16:06
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311842	GLW	EET PHX	11/28/23 18:44
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311929	GLW	EET PHX	11/29/23 15:44
Total/NA	Prep	200.8			311487	SGO	EET PHX	11/21/23 06:58
Total/NA	Analysis	200.8 LL		10	311751	DSJ	EET PHX	11/27/23 17:54
Total/NA	Prep	245.1			311424	HHL	EET PHX	11/20/23 11:20
Total/NA	Analysis	245.1		1	311470	HHL	EET PHX	11/20/23 15:33
Total/NA	Analysis	SM 2540C		1	311341	KMG	EET PHX	11/17/23 11:54 - 12/01/23 16:42 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311288	MAN	EET PHX	11/16/23 14:33

Client Sample ID: FC-CCR-FD01-1123

Lab Sample ID: 550-210593-7

Date Collected: 11/11/23 08:53
Matrix: Water
Date Received: 11/15/23 14:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311405	MMH	EET PHX	11/19/23 01:37
Total/NA	Analysis	300.0		200	311405	MMH	EET PHX	11/19/23 01:55
Total Recoverable	Prep	200.7			385879	JP8N	EET CAL 4	11/21/23 09:32
Total Recoverable	Analysis	200.7 Rev 4.4		5	387424	P1R	EET CAL 4	11/28/23 16:08
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311842	GLW	EET PHX	11/28/23 18:47
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311929	GLW	EET PHX	11/29/23 15:47

Lab Chronicle

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-FD01-1123

Lab Sample ID: 550-210593-7

Date Collected: 11/11/23 08:53
Matrix: Water
Date Received: 11/15/23 14:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			311487	SGO	EET PHX	11/21/23 06:58
Total/NA	Analysis	200.8 LL		10	311751	DSJ	EET PHX	11/27/23 17:56
Total/NA	Prep	245.1			311424	HHL	EET PHX	11/20/23 11:20
Total/NA	Analysis	245.1		1	311470	HHL	EET PHX	11/20/23 15:41
Total/NA	Analysis	SM 2540C		1	311341	KMG	EET PHX	11/17/23 11:54 - 12/01/23 16:42 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311288	MAN	EET PHX	11/16/23 14:35

Client Sample ID: FC-CCR-CM01-1123

Lab Sample ID: 550-210593-8

Date Collected: 11/13/23 09:41
Matrix: Water
Date Received: 11/15/23 14:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311405	MMH	EET PHX	11/19/23 03:09
Total/NA	Analysis	300.0		200	311405	MMH	EET PHX	11/19/23 03:27
Total Recoverable	Prep	200.7			385879	JP8N	EET CAL 4	11/21/23 09:32
Total Recoverable	Analysis	200.7 Rev 4.4		5	387424	P1R	EET CAL 4	11/28/23 16:11
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311842	GLW	EET PHX	11/28/23 18:50
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311929	GLW	EET PHX	11/29/23 15:49
Total/NA	Prep	200.8			311487	SGO	EET PHX	11/21/23 06:58
Total/NA	Analysis	200.8 LL		10	311751	DSJ	EET PHX	11/27/23 17:58
Total/NA	Prep	245.1			311424	HHL	EET PHX	11/20/23 11:20
Total/NA	Analysis	245.1		1	311470	HHL	EET PHX	11/20/23 15:43
Total/NA	Analysis	SM 2540C		1	311443	KMG	EET PHX	11/20/23 12:18 - 11/22/23 18:10 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311288	MAN	EET PHX	11/16/23 14:36

Client Sample ID: FC-CCR-CM02-1123

Lab Sample ID: 550-210593-9

Date Collected: 11/13/23 09:52
Matrix: Water
Date Received: 11/15/23 14:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		2	311405	MMH	EET PHX	11/19/23 03:45
Total/NA	Analysis	300.0		200	311405	MMH	EET PHX	11/19/23 04:04
Total Recoverable	Prep	200.7			385879	JP8N	EET CAL 4	11/21/23 09:32
Total Recoverable	Analysis	200.7 Rev 4.4		5	387424	P1R	EET CAL 4	11/28/23 16:13
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311842	GLW	EET PHX	11/28/23 18:53
Total/NA	Prep	200.7			311484	SGO	EET PHX	11/21/23 04:37
Total/NA	Analysis	200.7 Rev 4.4		5	311929	GLW	EET PHX	11/29/23 15:52
Total/NA	Prep	200.8			311487	SGO	EET PHX	11/21/23 06:58
Total/NA	Analysis	200.8 LL		10	311751	DSJ	EET PHX	11/27/23 18:00
Total/NA	Prep	245.1			311424	HHL	EET PHX	11/20/23 11:20
Total/NA	Analysis	245.1		1	311470	HHL	EET PHX	11/20/23 15:45

Lab Chronicle

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-CM02-1123

Date Collected: 11/13/23 09:52
Date Received: 11/15/23 14:43

Lab Sample ID: 550-210593-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	311443	KMG	EET PHX	11/20/23 12:18 - 11/22/23 18:10 [1]
Total/NA	Analysis	SM 4500 H+ B		1	311288	MAN	EET PHX	11/16/23 14:41

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8 LL	200.8	Water	Molybdenum
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Lithium

Method Summary

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

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
9056A	Anions, Ion Chromatography	SW846	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET CAL 4
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET CAL 4
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

210593

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

Client Contact			
Arizona Public Service	Natalie Chrisman	Pam Norris (505-598-8781)	Date:
PO Box 355, MS 4915	602-250-3608	Lab Contact: Rachel Sester	Carrier:
Fruitland, NM 87416	Analysis Turnaround Time		
	☐ CALENDAR DAYS ☑ WORKING DAYS		
	TAT if different from Below _____		
Project Name: CCR Groundwater Monitoring	☑ 2 weeks		
Site: APS Four Corners Power Plant (URS)	☐ 1 week		
PO #: 100622298	☐ 2 days		
	☐ 1 day		

COC No: 1 of 1 COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	SM 4500-HB (pH)	SM 2540C (TDS)	EPA 245.1 - Totals (Hg)	9056A - Fluoride	Sample Specific Notes:
FC-CCR-MW67-1123	-1	11/13/2023	918	G	W	3	N	N	X	X	X	X	X	X	X	X	Low Flow
FC-CCR-MW68-1123	-2	11/11/2023	1128	G	W	3	N	N	X	X	X	X	X	X	X	X	"
FC-CCR-MW69-1123	-3	11/11/2023	1033	G	W	3	N	N	X	X	X	X	X	X	X	X	"
FC-CCR-MW83-1123	-4	11/11/2023	1410	G	W	3	N	N	X	X	X	X	X	X	X		"
FC-CCR-MW84-1123	-5	11/11/2023	1553	G	W	3	N	N	X	X	X	X	X	X	X		"
FC-CCR-MW85-1123	-6	11/11/2023	1503	G	W	3	N	N	X	X	X	X	X	X	X		"
FC-CCR-FD01-1123	-7	11/11/2023	853	G	W	3	N	N	X	X	X	X	X	X	X		"
FC-CCR-CM01-1123	-8	11/13/2023	941	G	W	3	N	N	X	X	X	X	X	X	X		Grab Sample
FC-CCR-CM02-1123	-9	11/13/2023	952	G	W	3	N	N	X	X	X	X	X	X	X		"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____									1	4	4	4	1	1	4		

550-210593 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Method 200.8 with collision cell

Jr 11/16/23
4.1°C - ONICE - 490 pc

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

	Company	Date/Time		Company	Date/Time
Relinquished by:	WSP	11-15-23 0830	Received by:		
Relinquished by:	A.A.S. 11.15	8:20AM	Received by:		
Relinquished by:	AA.S 1115	2:43 PM	Received in Laboratory by:	EETA-PHX	11/15/23 14:43

4/10/2024 (Rev. 1)

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Env

Loc: 550
210593

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-38245.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-210593-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 11/30/2023			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009706			
Site: Arizona Public Service	SSOW#:			

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Lithium	Total Number of containers	Special Instru
			Preservation Code:						
FC-CCR-MW67-1123 (550-210593-1)	11/13/23	09:18 Arizona		Water			X	1	
FC-CCR-MW68-1123 (550-210593-2)	11/11/23	11:28 Arizona		Water			X	1	
FC-CCR-MW69-1123 (550-210593-3)	11/11/23	10:33 Arizona		Water			X	1	
FC-CCR-MW83-1123 (550-210593-4)	11/11/23	14:10 Arizona		Water			X	1	
FC-CCR-MW84-1123 (550-210593-5)	11/11/23	15:53 Arizona		Water			X	1	
FC-CCR-MW85-1123 (550-210593-6)	11/11/23	15:03 Arizona		Water			X	1	
FC-CCR-FD01-1123 (550-210593-7)	11/11/23	08:53 Arizona		Water			X	1	
FC-CCR-CM01-1123 (550-210593-8)	11/13/23	09:41 Arizona		Water			X	1	
FC-CCR-CM02-1123 (550-210593-9)	11/13/23	09:52 Arizona		Water			X	1	

550-210593 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
11-16-23	14:40	ET SW	FedEx		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				11/17/23 0930	EC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		2-3/2-2 SOC

Ver: 06/08/2021

4/10/2024 (Rev. 1)

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-210593-1
SDG Number: APS Four Corners Power Plant (URS)

Login Number: 210593
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-210593-1
SDG Number: APS Four Corners Power Plant (URS)

Login Number: 210593
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 11/17/23 12:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	2264067
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT

B

Analytical Data Validation Checklists

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J209471	**Review Date:**	11/14/2023 rev. 11/21/23
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
CH-CCR-M43A-1023	10/16/2023 16:23	550-209471-1/2	
CH-CCR-M45A-1023	10/17/2023 13:38	550-209471-3	
CH-CCR-M46A-1023	10/16/2023 13:22	550-209471-4/5	
CH-CCR-M50A-1023	10/17/2023 10:21	550-209471-6/7	
CH-CCR-M51A-1023	10/17/2023 9:37	550-209471-8/9	
CH-CCR-M65A-1023	10/16/2023 11:19	550-209471-10/11	
CH-CCR-M66A-1023	10/16/2023 10:15	550-209471-12/13	
CH-CCR-M67A-1023	10/16/2023 15:15	550-209471-14/15	
CH-CCR-W125-1023	10/17/2023 11:16	550-209471-16	
CH-CCR-W126R-1023	10/16/2023 9:29	550-209471-17/18	
CH-CCR-BudHunt-1023	10/17/2023 8:40	550-209471-19/20	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC)	General Chemistry	SM 5310B
Fluoride	Anions	EPA 9056A

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

The sample ID for sample CH-CCR-M45A-1023 was incorrectly logged by the laboratory as CH-CCR-M452-1023. For the remainder of this report, WSP refers to this sample as CH-CCR-M45A-1023.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M43A-1023	pH	9 days, 16 hours, 51 minutes	J-HT
CH-CCR-M45A-1023	pH	8 days, 19 hours, 38 minutes	J-HT
CH-CCR-M46A-1023	pH	9 days, 19 hours, 56 minutes	J-HT
CH-CCR-M50A-1023	pH	8 days, 22 hours, 58 minutes	J-HT
CH-CCR-M51A-1023	pH	8 days, 23 hours, 43 minutes	J-HT
CH-CCR-M65A-1023	pH	9 days, 22 hours, 2 minutes	J-HT
CH-CCR-M66A-1023	pH	9 days, 23 hours, 7 minutes	J-HT
CH-CCR-M67A-1023	pH	9 days, 18 hours, 8 minutes	J-HT
CH-CCR-W125-1023	pH	8 days, 22 hours, 9 minutes	J-HT
CH-CCR-W126R-1023	pH	9 days, 23 hours, 57 minutes	J-HT
CH-CCR-BudHunt-1023	pH	9 days, 0 hours, 47 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability
Barium	125%, 119%	85-115%	CH-CCR-M43A-1023, CH-CCR-M45A-1023, CH-CCR-M46A-1023, CH-CCR-M50A-1023, CH-CCR-M51A-1023, CH-CCR-M65A-1023, CH-CCR-M66A-1023, CH-CCR-M67A-1023, CH-CCR-W125-1023, CH-CCR-W-126R-1023, CH-CCR-BudHunt-1023	J-HL

Note:
HL = High laboratory control sample recovery. Result may be biased high.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M43A-1023	Ammonia, Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Nitrate/nitrite, Potassium, Sodium
CH-CCR-M45A-1023	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium
CH-CCR-M46A-1023	Chloride, Fluoride, Sulfate
CH-CCR-M51A-1023	Lithium
CH-CCR-M66A-1023	DOC
CH-CCR-W-126R-1023	Mercury

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M43A-1023	Calcium	-7%, 65%	70-130%	NA4
CH-CCR-M43A-1023	Magnesium	61%, MS	70-130%	NA4
CH-CCR-M43A-1023	Sodium	-219%, -65%	70-130%	NA4
CH-CCR-M46A-1023	Chloride	9%, -5%	80-120%	NA4
CH-CCR-M46A-1023	Sulfate	29%, 11%	80-120%	NA4

Note:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-M46A-1023	Chloride, Fluoride, Sulfate, TDS
CH-CCR-M45A-1023	pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J209476	**Review Date:**	11/20/2023 rev. 11/21/23
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
CH-CCR-M53A-1023	10/19/23 11:48	550-209476-1/2	
CH-CCR-MW69A-1023	10/19/23 09:11	550-209476-3/4	
CH-CCR-MW70M-1023	10/18/23 15:43	550-209476-5/6	
CH-CCR-MW71A-1023	10/18/23 13:12	550-209476-7/8	
CH-CCR-MW72M-1023	10/18/23 14:02	550-209476-9/10	
CH-CCR-MW73A-1023	10/18/23 11:00	550-209476-11/12	
CH-CCR-MW74M-1023	10/18/23 10:00	550-209476-13/14	
CH-CCR-MW77A-1023	10/17/23 14:54	550-209476-15/16	
CH-CCR-W301-1023	10/19/23 15:52	550-209476-17/18	
CH-CCR-W303-1023	10/19/23 13:35	550-209476-19/20	
CH-CCR-W306-1023	10/19/23 10:30	550-209476-21/22	
CH-CCR-W314-1023	10/19/23 08:45	550-209476-23/24	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC)	General Chemistry	SM 5310B
Fluoride	Anions	EPA 9056A

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M53A-1023	pH	6 days, 20 hours, 58 minutes	J-HT
CH-CCR-MW69A-1023	pH	6 days, 23 hours, 37 minutes	J-HT
CH-CCR-MW70M-1023	pH	7 days, 17 hours, 7 minutes	J-HT
CH-CCR-MW71A-1023	pH	7 days, 19 hours, 39 minutes	J-HT
CH-CCR-MW72M-1023	pH	7 days, 18 hours, 51 minutes	J-HT
CH-CCR-MW73A-1023	pH	7 days, 21 hours, 55 minutes	J-HT
CH-CCR-MW74M-1023	pH	7 days, 22 hours, 56 minutes	J-HT
CH-CCR-MW77A-1023	pH	8 days, 18 hours, 3 minutes	J-HT
CH-CCR-W301-1023	pH	6 days, 17 hours, 7 minutes	J-HT
CH-CCR-W303-1023	pH	6 days, 19 hours, 25 minutes	J-HT
CH-CCR-W306-1023	pH	6 days, 22 hours, 33 minutes	J-HT
CH-CCR-W314-1023	pH	7 days, 0 hours, 20 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability
Barium	116%, 116%	85-115%	CH-CCR-M53A-1023, CH-CCR-MW69A-1023, CH-CCR-MW70M-1023, CH-CCR-MW71A-1023, CH-CCR-MW72M-1023, CH-CCR-MW73A-1023, CH-CCR-MW74M-1023, CH-CCR-MW77A-1023, CH-CCR-W301-1023, CH-CCR-W303-1023	J-HL
Barium	116%, 117%	85-115%	CH-CCR-W306-1023, CH-CCR-W314-1023	J-HL
Iron	82%, 82%	85-115%	CH-CCR-M53A-1023 CH-CCR-MW69A-1023 CH-CCR-MW70M-1023 CH-CCR-MW71A-1023 CH-CCR-MW72M-1023 CH-CCR-MW73A-1023 CH-CCR-MW74M-1023 CH-CCR-MW77A-1023 CH-CCR-W301-1023 CH-CCR-W303-1023	J/UJ-LL

Notes:
HL = High laboratory control sample recovery. Result may be biased high.
LL = Low laboratory control sample recovery. Result may be biased low.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M53A-1023	Beryllium, Boron, Calcium, Lithium, Iron, Magnesium, Manganese, Nitrate/Nitrite, Potassium
CH-CCR-MW69A-1023	Ammonia, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium
CH-CCR-MW72M-1023	DOC
CH-CCR-MW74M-1023	Mercury
CH-CCR-MW77A-1023	Fluoride, Nitrate/Nitrite
CH-CCR-W303-1023	Lithium

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-W314-1023	Ammonia

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M53A-1023	Calcium	-20%, 34%	70-130%	NA4

Note:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-MW69A-1023	Alkalinity
CH-CCR-W306-1023	TDS, pH
CH-CCR-M53A-1023	pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No) N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit
CH-CCR-MW72M-1023	Beryllium	0.010 mg/L
CH-CCR-MW72M-1023	Fluoride (by EPA 9056A)	80 mg/L

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J209609	**Review Date:**	11/30/2023
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
CH-CCR-MW78A-1023	10/23/23 13:00	550-209609-1/2	
CH-CCR-BAPTD-1023	10/24/23 08:42	550-209609-3/4	
CH-CCR-Petroglyph-1023	10/24/23 09:09	550-209609-5/6	
CH-CCR-TannerWash-1023	10/24/23 09:28	550-209609-7/8	
CH-CCR-TWX3-1023	10/24/23 10:07	550-209609-9/10	
CH-CCR-TWX5-1023	10/24/23 10:25	550-209609-11/12	
CH-CCR-TWX7-1023	10/24/23 10:41	550-209609-13/14	
CH-CCR-TWX9-1023	10/24/23 15:41	550-209609-15/16	
CH-CCR-TWX10-1023	10/24/23 15:59	550-209609-17/18	
CH-CCR-EB01-1023	10/25/23 08:15	550-209609-19/20	Equipment Blank

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Fluoride	Anions	EPA 9056A
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC)	General Chemistry	SM 5310B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-MW78A-1023	pH	5 days, 23 hours, 54 minutes	J-HT
CH-CCR-BAPTD-1023	pH	5 days, 4 hours, 14 minutes	J-HT
CH-CCR-Petroglyph-1023	pH	5 days, 3 hours, 48 minutes	J-HT
CH-CCR-TannerWash-1023	pH	5 days, 3 hours, 30 minutes	J-HT
CH-CCR-TWX3-1023	pH	5 days, 2 hours, 52 minutes	J-HT
CH-CCR-TWX5-1023	pH	5 days, 2 hours, 35 minutes	J-HT
CH-CCR-TWX7-1023	pH	5 days, 2 hours, 20 minutes	J-HT
CH-CCR-TWX9-1023	pH	4 days, 21 hours, 21 minutes	J-HT
CH-CCR-TWX10-1023	pH	4 days, 21 hours, 4 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Arsenic, total	0.0029 mg/L	None	NA
Arsenic, dissolved	3.2 ug/L	None	NA
Sodium	0.696 mg/L	None	NA

Notes:

NA = not applicable

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-BAPTD-1023	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
CH-CCR-TWX9-1023	Lithium
CH-CCR-MW78A-1023	Ammonia, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium
CH-CCR-TWX10-1023	Nitrate/Nitrite

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-MW78A-1023	Antimony	18%, 19%	70-130%	UJ-LM
CH-CCR-MW78A-1023	Arsenic	18%, 19%	70-130%	J-LM
CH-CCR-MW78A-1023	Barium	19%, 20%	70-130%	J-LM
CH-CCR-MW78A-1023	Cadmium	18%, 18%	70-130%	UJ-LM
CH-CCR-MW78A-1023	Chromium	17%, 18%	70-130%	UJ-LM
CH-CCR-MW78A-1023	Cobalt	17%, 18%	70-130%	UJ-LM
CH-CCR-MW78A-1023	Lead	18%, 19%	70-130%	UJ-LM
CH-CCR-MW78A-1023	Molybdenum	19%, 20%	70-130%	J-LM
CH-CCR-MW78A-1023	Selenium	17%, 17%	70-130%	J-LM
CH-CCR-MW78A-1023	Thallium	17%, 18%	70-130%	UJ-LM
CH-CCR-BAPTD-1023	Calcium	-97%, -83%	70-130%	NA4
CH-CCR-BAPTD-1023	Magnesium	29%, 34%	70-130%	NA4
CH-CCR-BAPTD-1023	Sodium	-450%, -410%	70-130%	NA4

Note:
LM = Low matrix spike recovery.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-MW78A-1023	Alkalinity, pH, TDS

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J210429	**Review Date:**	12/14/2023
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW52-1123	11/08/23 14:40	550-210429-1	
FC-CCR-MW61-1123	11/09/23 12:50	550-210429-2	
FC-CCR-MW75-1123	11/08/23 15:39	550-210429-3	
FC-CCR-FD03-1123	11/08/23 16:11	550-210429-4	Field Duplicate of FC-CCR-MW52-1123

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Fluoride	Anions	SW846 9056A
Beryllium, Boron, Calcium, Lithium, Magnesium, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500 H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes (No) N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
FC-CCR-MW61-1123	pH	6 days, 0 hours, 56 minutes	J-HT
FC-CCR-MW75-1123	pH	6 days, 22 hours, 9 minutes	J-HT

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability
Beryllium	117%, 117%	85-115%	None	NA
Boron	116%, LCS	85-115%	FC-CCR-MW52-1123, FC-CCR-MW61-1123, FC-CCR-MW75-1123, FC-CCR-FD03-1123	J-HL
Calcium	117%, LCS	85-115%	FC-CCR-MW61-1123, FC-CCR-MW75-1123	J-HL

Note:
HL = High LCS recovery.
NA = Not applicable.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-MW52-1123	Boron, Cobalt, Molybdenum

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
FC-CCR-MW52-1123	Boron	56%, 52%	70-130%	NA4

Note:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-MW52-1123	FC-CCR-FD03-1123

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
FC-CCR-MW61-1123	pH

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	S.U.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J210593	Review Date:	12/8/2023
Validator's Name:	Caitlin Riechmann	Reviewed By:	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW67-1123	11/13/23 09:18	550-210593-1	
FC-CCR-MW68-1123	11/11/23 11:28	550-210593-2	
FC-CCR-MW69-1123	11/11/23 10:33	550-210593-3	
FC-CCR-MW83-1123	11/11/23 14:10	550-210593-4	
FC-CCR-MW84-1123	11/11/23 15:53	550-210593-5	
FC-CCR-MW85-1123	11/11/23 15:03	550-210593-6	
FC-CCR-FD01-1123	11/11/23 08:53	550-210593-7	Field Duplicate of FC-CCR-MW84-1123
FC-CCR-CM01-1123	11/13/23 09:41	550-210593-8	
FC-CCR-CM02-1123	11/13/23 09:52	550-210593-9	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Fluoride	Anions	EPA 9056A
Beryllium, Boron, Calcium, Lithium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500 H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes (No) N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
FC-CCR-MW67-1123	pH	3 days, 5 hours, 2 minutes	J-HT
FC-CCR-MW68-1123	pH	5 days, 2 hours, 55 minutes	J-HT
FC-CCR-MW69-1123	pH	5 days, 3 hours, 53 minutes	J-HT
FC-CCR-MW83-1123	pH	5 days, 0 hours, 18 minutes	J-HT
FC-CCR-MW84-1123	pH	4 days, 22 hours, 38 minutes	J-HT
FC-CCR-MW84-1123	TDS	23 days	J-HT
FC-CCR-MW85-1123	pH	4 days, 23 hours, 30 minutes	J-HT
FC-CCR-FD01-1123	pH	5 days, 5 hours, 42 minutes	J-HT
FC-CCR-CM01-1123	pH	3 days, 4 hours, 55 minutes	J-HT
FC-CCR-CM02-1123	pH	3 days, 4 hours, 49 minutes	J-HT

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability
Beryllium	122%, 116%	85-115%	None	NA

Notes:
NA = Not applicable.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-MW85-1123	Mercury

a. Are MS recoveries and/or precision within laboratory specified limits?

(Yes) No N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-MW84-1123	FC-CCR-FD01-1123

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
FC-CCR-MW84-1123	TDS
FC-CCR-CM02-1123	pH

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Other QC Issues? Yes (No)

If yes:

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No)

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	S.U.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit
FC-CCR-MW67-1123 FC-CCR-MW68-1123 FC-CCR-MW69-1123 FC-CCR-MW83-1123 FC-CCR-MW84-1123 FC-CCR-MW85-1123 FC-CCR-FD01-1123 FC-CCR-CM01-1123 FC-CCR-CM02-1123	Antimony	0.010 mg/L

Sample ID	Analyte	Reporting Limit
FC-CCR-MW67-1123 FC-CCR-MW68-1123 FC-CCR-MW69-1123 FC-CCR-MW83-1123 FC-CCR-MW84-1123 FC-CCR-MW85-1123 FC-CCR-FD01-1123 FC-CCR-CM01-1123 FC-CCR-CM02-1123	Beryllium	0.0050 mg/L

APPENDIX

C

GROUNDWATER QUALITY DATA TABLES THROUGH 2024

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
M-64A	Background	Alluvial	CH-CCR-M100-217	2/20/2017	**1.1**	**570**	**4,000**	<8.0	**7.4**	**4,100**	**11,000**
M-64A	Background	Alluvial	CH-CCR-M64A-217	2/20/2017	**1.2**	**520**	**4,500**	<0.80	**7.4**	**4,400**	**10,000**
M-64A	Background	Alluvial	CH-CCR-FD02-41217	4/12/2017	**1.2**	**550**	**4,200**	<2.0	**7.7**	**4,300**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64A-41217	4/12/2017	**1.2**	**500**	**4,200**	<0.80	**7.6**	**4,200**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64A-42517	4/25/2017	**1.3**	**490**	**4,100**	<0.80	**7.5**	**4,300**	**11,000**
M-64A	Background	Alluvial	CH-CCR-M64A-51817	5/18/2017	**1.3**	**510**	**4,400**	<0.80	**7.6**	**4,400**	**12,000**
M-64A	Background	Alluvial	CH-CCR-FD01-52417	5/24/2017	**1.2**	**520**	**4,000**	<0.80	**7.4**	**4,100**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-52417	5/24/2017	**1.3**	**520**	**4,200**	<0.80	**7.4**	**4,400**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-63017	6/30/2017	**1.2**	**600**	**5,100**	<0.80	**7.3**	**4,700**	**13,000**
M-64A	Background	Alluvial	CH-CCR-FD01-72717	7/27/2017	**1.3**	**620**	**4,700**	<0.80	**7.4**	**4,600**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64A-72717	7/27/2017	**1.3**	**640**	**4,900**	<0.80	**7.4**	**4,800**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64A-90717	9/7/2017	**1.2**	**620**	**4,700**	<0.80	**7.3**	**4,300**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-120817	12/8/2017	**1.2**	**500**	**3,500**	<0.80	**7.4**	**4,400**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-21518	2/15/2018	--	--	--	<0.80	--	--	--
M-64A	Background	Alluvial	CH-CCR-M-64A-51918	5/19/2018	**1.4**	**460**	**4,700**	<0.80	**7.3**	**4,600**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M-64A-102218	10/22/2018	**1.3**	**510**	**3,900**	<0.80	**7.4**	**3,700**	**13,000**
M-64A	Background	Alluvial	*DUP* CH-CCR-FD-01-102218	10/22/2018	**1.3**	**500**	**4,100**	<2.0	**7.3**	**4,000**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-21319	2/13/2019	--	--	--	<0.80	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-41119	4/11/2019	**1.3**	**500**	**4,400**	<0.80	**7.3 J**	**4,300**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-41619	4/16/2019	--	--	--	<0.80	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-8119	8/1/2019	**1.3**	**450**	**4,200**	<0.8	**7.4 J**	**4,300**	**12,000**
M-64A	Background	Alluvial	*DUP* CH-CCR-FD01-8119	8/1/2019	**1.3**	**450**	**4,300**	<0.8	**7.4 J**	**4,300**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-102419	10/24/2019	**1.2**	**460**	**8,400**	<0.80	**7.5 J**	**8,600**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64-0520	5/6/2020	**1.2**	**520**	**3,900**	<0.8	**7.3 J**	**3,900**	**12,000**
M-64A	Background	Alluvial	*DUP* CH-CCR-FD05-0520	5/6/2020	**1.3**	**510**	**4,100**	<0.8	**7.6 J**	**4,100**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64-1020	10/24/2020	**1.2**	**480**	**4,500**	**0.28**	**7.3 J**	**4,400**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64-0421	4/15/2021	**1.2**	**540**	**4,300**	**0.21 J**	**7.5 J**	**4,400**	**6,600**
M-64A	Background	Alluvial	CH-CCR-M64-1021	10/22/2021	**1.0**	**540**	**4,400**	**0.38 J**	**7.4 J**	**3,900**	**11,000 J**
M-64A	Background	Alluvial	CH-CCR-M64A-0422	4/26/2022	**1.0**	**590**	**4,300**	**0.34 J**	**7.3 J**	**3,800**	**14,000**
M-64A	Background	Alluvial	CH-CCR-M64A-1022	10/22/2022	**1.1**	**580**	**4,400**	<0.8	**7.3 J**	**4,000**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-0423	04/17/2023	**1.1**	**640**	**4,200**	<10	**6.9 J**	**3,700**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-1023	10/11/2023	**0.91**	**570**	**4,100**	<0.4	**7.4 J**	**3,600**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-0424	04/18/2024	**1.0**	**630**	**3,800**	<0.4	**7.5 J**	**3,300**	**12,000**
M-64A	Background	Alluvial	CH-CCR-MW64A-1024	10/30/2024	**1.0**	**556**	**4,340**	**0.798 J**	**7.51 J**	**3,470**	**12,200**
M-50A	Downgradient	Alluvial	7792	12/2/2015	**2.8**	**680**	**2,800**	**2.0**	**7.55**	**2,900**	**8,300**
M-50A	Downgradient	Alluvial	7793	12/2/2015	**2.7**	**670**	**2,900**	**2.0**	**7.23**	**2,900**	**8,300**
M-50A	Downgradient	Alluvial	CH-M-50A-0316	3/8/2016	**2.9**	**660**	**5,300**	**2.0**	**7.37**	**5,700**	**8,300**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-516	5/5/2016	**3.0**	**680**	**2,500**	**2.2**	--	**2,700**	**8,300**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-816	8/25/2016	**2.6**	**650**	**2,600**	**2.3**	**7.2**	**2,800**	**8,400**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-916	9/23/2016	**2.8**	**630**	**2,500**	**2.1**	**7.4**	**2,900**	**8,500**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-217	2/21/2017	**2.9**	**680**	**2,400**	**2.1**	**7.5**	**2,800**	**7,900**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-41317	4/13/2017	**2.8**	**680**	**2,800**	**2.0**	**7.8**	**3,000**	**8,200**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-42617	4/26/2017	**2.8**	**620**	**2,400**	**2.0**	**7.2**	**2,900**	**7,900**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
M-50A	Downgradient	Alluvial	CH-CCR-M50A-51817	5/18/2017	**2.8**	**670**	**2,600**	**2.2**	**7.6**	**3,200**	**7,300**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-52417	5/24/2017	**3.0**	**680**	**2,700**	**2.3**	**7.4**	**3,200**	**8,300**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-63017	6/30/2017	**2.7**	**630**	**2,700**	**2.4**	**7.3**	**3,300**	**8,100**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-72717	7/27/2017	**2.8**	**660**	**2,600**	**2.5**	**7.4**	**3,100**	**8,400**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-90717	9/7/2017	**3.0**	**660**	**2,500**	**2.2**	**7.2**	**3,100**	**8,400**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-120817	12/8/2017	**2.9**	**650**	**2,600**	**2.2**	**7.4**	**3,000**	**8,000**
M-50A	Downgradient	Alluvial	CH-CCR-FD01-21418	2/14/2018	**--**	**--**	**--**	**2.4**	**--**	**--**	**--**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-21418	2/14/2018	**--**	**--**	**--**	**2.6**	**--**	**--**	**--**
M-50A	Downgradient	Alluvial	CH-CCR-M-50A-52118	5/21/2018	**3.0**	**610**	**2,400**	**2.4**	**7.2**	**3,100**	**7,900**
M-50A	Downgradient	Alluvial	CH-CCR-M-50A-102418	10/24/2018	**3.1**	**630**	**2,200**	**1.9**	**7.4**	**3,100**	**8,100**
M-50A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-21319	2/13/2019	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-21319	2/13/2019	**--**	**--**	**--**	**2.2**	**--**	**--**	**--**
M-50A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-41119	4/11/2019	**47**	**750**	**6,700**	**3.7**	**7.4**	**3,900**	**16,000**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-41119	4/11/2019	**3.1**	**610**	**2,200**	**2.0**	**7.4**	**3,000**	**7,700**
M-50A	Downgradient	Alluvial	CCH-CCR-M50A-112519	11/25/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-112519	11/25/2019	**3.1**	**610**	**2,100**	**2.1**	**7.1 J**	**3,000**	**7,800**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0520	5/6/2020	**3.0**	**600**	**1,900**	**2.3**	**7.5 J**	**3,000**	**7,700**
M-50A	Downgradient	Alluvial	CH-CCR-M50-1020	10/25/2020	**2.9**	**560**	**2,100**	**2.2**	**7.3 J**	**3,200**	**7,400**
M-50A	Downgradient	Alluvial	CH-CCR-M50-0421	4/15/2021	**3.0**	**630**	**2,000**	**2.4**	**7.5 J**	**3,200**	**8,100 J**
M-50A	Downgradient	Alluvial	CH-CCR-M50-1021	10/23/2021	**2.9**	**590**	**3,300**	**2.3**	**7.4 J**	**6,300**	**7,200 J**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0422	4/28/2022	**3.1**	**620**	**1,900**	**2.3**	**7.4 J**	**3,200**	**7,400**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-1022	10/22/2022	**3.3**	**630**	**1,900**	**2.1**	**7.4 J**	**3,200**	**7,000**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0423	04/17/2023	**3.3**	**680**	**1,800**	<4	**7.5 J**	**3,000**	**7,400**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-1023	10/17/2023	**3.0**	**570**	**1,900**	**2.5**	**7.4 J**	**3,000**	**7,500**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0424	04/18/2024	**3.0**	**600**	**1,800**	**2.0**	**7.5 J**	**2,700**	**6,900**
M-50A	Downgradient	Alluvial	CH-CCR-M50A-1024	11/06/2024	**2.89**	**531**	**1,980**	**2.1**	**7.75 J**	**3,010**	**7,880**
M-51A	Downgradient	Alluvial	7880	12/2/2015	**33**	**940**	**6,700**	**4.8**	**7.29**	**2,800**	**13,000**
M-51A	Downgradient	Alluvial	CH-M-51A-0316	3/9/2016	**33**	**930**	**6,400**	**5.2**	**7.27**	**2,700**	**14,000**
M-51A	Downgradient	Alluvial	CH-DUP02-0316	3/9/2016	**32**	**920**	**6,500**	**6.1**	**7.22**	**2,700**	**14,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0516	5/5/2016	**35**	**980**	**6,600**	**5.5**	**--**	**2,800**	**14,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-816	8/25/2016	**36**	**960**	**6,500**	**6.0**	**7.1**	**3,000**	**15,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-916	9/23/2016	**36**	**920**	**6,000**	**5.4**	**7.3**	**2,800**	**15,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-217	2/21/2017	**33**	**920**	**6,500**	**4.4**	**7.1**	**2,800**	**13,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-41317	4/13/2017	**35**	**970**	**7,500**	**4.1**	**7.6**	**2,900**	**14,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-42617	4/26/2017	**35**	**880**	**6,300**	**4.6**	**7.2**	**2,900**	**13,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-51817	5/18/2017	**35**	**890**	**6,800**	**5.0**	**7.3**	**3,200**	**13,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-52417	5/24/2017	**38**	**940**	**6,600**	**5.3**	**7.3**	**3,100**	**13,000**
M-51A	Downgradient	Alluvial	CH-CCR-FD02-63017	6/30/2017	**36**	**860**	**7,100**	**5.1**	**7.2**	**3,300**	**14,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-63017	6/30/2017	**36**	**880**	**7,000**	**4.9**	**7.2**	**3,300**	**14,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-72717	7/27/2017	**38**	**950**	**7,100**	**6.0**	**7.3**	**3,500**	**14,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-90717	9/7/2017	**38**	**950**	**6,600**	**5.7**	**7.2**	**3,100**	**14,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-120817	12/8/2017	**34**	**910**	**5,900**	**5.1**	**7.3**	**2,800**	**13,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-21418	2/14/2018	**--**	**--**	**--**	**5.4**	**--**	**--**	**--**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
M-51A	Downgradient	Alluvial	CH-CCR-M-51A-52118	5/21/2018	**34**	**820**	**5,800**	**5.7**	**7.1**	**3,100**	**12,000**
M-51A	Downgradient	Alluvial	CH-CCR-M-51A-102418	10/24/2018	**30**	**870**	**5,400**	**5.0**	**7.3**	**2,900**	**12,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-21319	2/13/2019	**--**	**--**	**--**	**4.5**	**--**	**--**	**--**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-41119	4/10/2019	**31**	**790**	**5,000**	**5.4**	**7.2**	**2,800**	**12,000**
M-51A	Downgradient	Alluvial	CCH-CCR-M51A-112519	11/25/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-112519	11/25/2019	**30**	**820**	**5,300**	**4.8**	**7.2 J**	**2,900**	**12,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0520	5/6/2020	**32**	**860**	**5,300**	**5.6**	**7.2 J**	**2,900**	**12,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51-1020	10/25/2020	**30**	**840**	**5,600 J**	**5.9**	**7.3 J**	**3,100**	**11,000**
M-51A	Downgradient	Alluvial	*DUP* CH-CCR-FD05-1020	10/25/2020	**30**	**850**	**4,900 J**	**6.0**	**7.3 J**	**2,800**	**11,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51-0421	4/15/2021	**30**	**890**	**5,600**	**5.7**	**7.4 J**	**3,100**	**11,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51-1021	10/23/2021	**28**	**840**	**8,700**	**5.7**	**7.3 J**	**5,600**	**11,000 J**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0422	4/28/2022	**30**	**830**	**5,200**	**5.6**	**7.3 J**	**2,900**	**13,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-1022	10/22/2022	**30**	**870**	**5,000**	**5.0**	**7.3 J**	**3,100**	**12,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0423	04/17/2023	**29**	**870**	**4,800**	**5.8**	**7.5 J**	**2,800**	**12,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-1023	10/17/2023	**27**	**860**	**6,300**	**5.6**	**7.3 J**	**2,800**	**14,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0424	04/18/2024	**29**	**980**	**5,700**	**2.2**	**7.4 J**	**2,400**	**13,000**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-1024	11/06/2024	**29**	**812**	**5,690**	**4.89**	**7.58 J**	**2,800**	**14,000**
MW-65A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-12518	12/5/2018	**43**	**760**	**6,900**	**3.6 J, UJ**	**7.4 J**	**4,100**	**16,000**
MW-65A	Downgradient	Alluvial	CH-CCR-MW65A-2518	12/5/2018	**12**	**780**	**3,900**	**1.9 J, UJ**	**7.3 J**	**2,700**	**9,900**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-21419	2/14/2019	**--**	**--**	**--**	**1.7**	**--**	**--**	**--**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-41119	4/11/2019	**11**	**730**	**3,600**	**1.9**	**7.2 J**	**2,700**	**9,400**
MW-65A	Downgradient	Alluvial	CCH-CCR-M65A-112619	11/26/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-112619	11/26/2019	**12**	**760**	**3,500**	**1.7**	**7.1 J**	**2,900**	**9,300**
MW-65A	Downgradient	Alluvial	CH-CCR-M65-0520	5/5/2020	**11**	**750**	**3,600**	**1.8**	**7.4 J**	**2,900**	**9,400**
MW-65A	Downgradient	Alluvial	CH-CCR-M65-1020	10/25/2020	**13**	**780**	**4,200**	**2.6**	**7.0 J**	**3,200**	**10,000**
MW-65A	Downgradient	Alluvial	CH-CCR-M65-0421	4/14/2021	**11**	**800**	**3,500**	**2.4**	**7.3 J**	**3,100**	**8,700**
MW-65A	Downgradient	Alluvial	CH-CCR-M65-1021	10/22/2021	**12**	**770**	**3,700**	**2.4**	**7 J**	**3,100**	**9,200 J**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-0422	4/26/2022	**10**	**760**	**3,000**	**1.7**	**7.2 J**	**2,800**	**9,100**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-1022	10/21/2022	**13**	**810**	**3,800**	**2.3**	**6.9 J**	**3,500**	**10,000**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-0423	04/15/2023	**11 J**	**820**	**2,900**	<4	**7.5 J**	**2,900**	**8,700**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-1023	10/16/2023	**14**	**830**	**4,300**	**3.0**	**6.9 J**	**3,700**	**12,000**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-0424	04/24/2024	**10 J**	**760 J**	**2,900**	**2.1**	**7.3 J**	**2,600**	**8,600**
MW-65A	Downgradient	Alluvial	CH-CCR-MW65A-1024	11/12/2024	**9.62**	**683**	**3,320**	**1.48**	**7.60 J**	**3,010**	**9,260**
MW-66A	Downgradient	Alluvial	CH-CCR-MW66A-2518	12/5/2018	**1.2**	**830**	**4,600**	**0.93 J, UJ**	**8.1 J**	**2,900**	**11,000**
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-21419	2/14/2019	**--**	**--**	**--**	**1.1**	**--**	**--**	**--**
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-41119	4/11/2019	**1.5**	**790**	**4,300**	**1.4**	**7.2 J**	**2,800**	**11,000**
MW-66A	Downgradient	Alluvial	*DUP* CCH-CCR-FD01-112619	11/26/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-66A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-112619	11/26/2019	**1.5**	**780**	**4,600**	**1.1**	**7.2 J**	**3,100**	**11,000**
MW-66A	Downgradient	Alluvial	CCH-CCR-M66A-112619	11/26/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-112619	11/26/2019	**1.5**	**780**	**4,600**	**1.1**	**7.2 J**	**3,100**	**11,000**
MW-66A	Downgradient	Alluvial	CH-CCR-M66-0520	5/5/2020	**1.6**	**800**	**4,600**	**1.1**	**7.3 J**	**3,100**	**11,000**
MW-66A	Downgradient	Alluvial	CH-CCR-M66-1020	10/25/2020	**1.5**	**750**	**4,400**	**1.4**	**7.1 J**	**3,000**	**10,000**
MW-66A	Downgradient	Alluvial	CH-CCR-M66-0421	4/15/2021	**1.7**	**820**	**4,400**	**1.6**	**7.3 J**	**3,100**	**10,000**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
MW-66A	Downgradient	Alluvial	CH-CCR-M66-1021	10/24/2021	**1.7**	**800**	**4,400**	**1.3**	**7.4 J**	**3,000**	**11,000 J**
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-0422	4/27/2022	**1.9**	**840**	**4,100 J**	**1.4**	**7.2 J**	**3,000 J**	**11,000**
MW-66A	Downgradient	Alluvial	*DUP* CH-CCR-FD06-0422	4/27/2022	**1.9**	**810**	**12,000 J**	**1.4**	**7.2 J**	**9,800 J**	**11,000**
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-1022	10/21/2022	**2.1**	**800**	**4,100**	**1.2**	**7.3 J**	**3,100**	**9,900**
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-0423	04/15/2023	**2.6 J**	**1,000**	**4,100**	<4	**7.3 J**	**3,000**	**10,000**
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-1023	10/16/2023	**2.0**	**740**	**3,800**	**1.4**	**7.4 J**	**3,000**	**9,900**
MW-66A	Downgradient	Alluvial	CH-CCR-MW66A-0424	04/17/2024	**2.0**	**710**	**3,500**	**0.57**	**7.4 J**	**2,800**	**10,000**
MW-66A	Downgradient	Alluvial	CH-CCR-MW66A-1024	11/04/2024	**1.9**	**611**	**3,510**	**1.26 J**	**7.69 J**	**3,090**	**10,500**
MW-67A	Downgradient	Alluvial	CH-CCR-MW67A-2518	12/5/2018	**0.38**	**1,500**	**5,000**	**1.0 J, UJ**	**6.9 J**	**1,500**	**9,300**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-21419	2/14/2019	--	--	--	<0.80	--	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-41119	4/11/2019	**0.37**	**1,500**	**4,900**	<0.80	**6.9 J**	**1,500**	**11,000**
MW-67A	Downgradient	Alluvial	CCH-CCR-M67A-112619	11/26/2019	--	--	--	--	--	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-112619	11/26/2019	**0.38**	**1,500**	**5,000**	<0.80	**6.8 J**	**1,500**	**11,000**
MW-67A	Downgradient	Alluvial	CH-CCR-M67-0520	5/5/2020	**0.36**	**1,700**	**5,400**	**0.95**	**7.1 J**	**1,500**	**11,000**
MW-67A	Downgradient	Alluvial	CH-CCR-M67-1020	10/25/2020	**0.33**	**1,600**	**5,500**	**0.47**	**7.5 J**	**1,500**	**12,000**
MW-67A	Downgradient	Alluvial	CH-CCR-M67-0421	4/14/2021	**0.34**	**1,700**	**5,700**	**0.61 J**	**7.0 J**	**1,600**	**11,000**
MW-67A	Downgradient	Alluvial	CH-CCR-M67-1021	10/22/2021	**0.34**	**1,700**	**5,700**	**0.90**	**7.1 J**	**1,500**	**10,000 J**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-0422	4/27/2022	**0.37**	**770**	**2,200**	**0.83**	**7.1 J**	**1,600**	**6,300**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-1022	10/21/2022	**0.37**	**650**	**2,200**	<0.8	**7.2 J**	**1,700**	**5,700**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-0423	04/15/2023	**0.46 J**	**750**	**1,900**	<4	**7.2 J**	**1,600**	**5,400**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-1023	10/16/2023	**0.35**	**520**	**2,000**	**0.8**	**7.3 J**	**1,800**	**5,000**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-0424	04/29/2024	**0.37**	**560**	**1,600**	**0.64**	**7.4 J**	**1,400**	**4,700**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-1024	11/12/2024	**0.332**	**482**	**1,560**	**0.706 J**	**7.57 J**	**1,430**	**5,070**
W-123	Downgradient	Moenkopi-Moqui	CH-W-123-0316	3/8/2016	**34**	**800**	**6,100**	**3.6**	**7.47**	**3,300**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-0516	5/6/2016	**35**	**830**	**6,200**	**3.6**	--	**3,300**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-816	8/25/2016	**36**	**800**	**5,900**	**4.1**	**7.6**	**3,600**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-916	9/22/2016	**37**	**810**	**6,000**	**3.7**	**7.7**	**3,600**	**15,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-217	2/20/2017	**37**	**860**	**6,200**	<8.0	**7.6**	**3,400**	**13,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-41317	4/13/2017	**35**	**880**	**6,600**	**4.0**	**8.1**	**3,600**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-42617	4/26/2017	**34**	**780**	**6,300**	**3.5**	**7.7**	**3,600**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-52217	5/22/2017	**35**	**850**	**6,300**	**3.8**	**7.6**	**3,500**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-52417	5/24/2017	**34**	**810**	**6,200**	**3.8**	**7.6**	**3,500**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-63017	6/30/2017	**35**	**810**	**6,700**	**3.8**	**7.5**	**3,700**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-72717	7/27/2017	**36**	**860**	**6,900**	**3.7**	**7.6**	**3,800**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-90717	9/7/2017	**36**	**870**	**6,700**	**3.7**	**7.5**	**3,600**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-120817	12/8/2017	**37**	**890**	**6,700**	**4.1**	**7.6**	**3,600**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-21418	2/14/2018	--	--	--	**4.2**	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W-123-52118	5/21/2018	**35**	**790**	**6,400**	**4.3**	**7.5**	**3,600**	**15,000**
W-123	Downgradient	Moenkopi-Moqui	*DUP* CH-CCR-FD-02-102418	10/24/2018	**36**	**850**	**6,700**	**3.9**	**7.7**	**3,600**	**15,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W-123-102418	10/24/2018	**37**	**850**	**6,600**	**4.0**	**7.7**	**3,600**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-21319	2/13/2019	--	--	--	**3.7**	--	--	--
W-123	Downgradient	Moenkopi-Moqui	*DUP* CH-CCR-FD02-41119	4/11/2019	--	--	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-w123-41119	4/11/2019	**37**	**790**	**6,200**	**3.9**	**7.6 J**	**3,400**	**14,000**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
W-123	Downgradient	Moenkopi-Moqui	*DUP* CH-CCR-FD02-8119	8/1/2019	**3.2**	**600**	**2,200**	**2.3**	**7.3 J**	**3,000**	**8,500**
W-123	Downgradient	Moenkopi-Moqui	CCH-CCR-W123-112519	11/25/2019	--	--	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-112519	11/25/2019	**35**	**780**	**6,600**	**3.6**	**7.6 J**	**3,700**	**15,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-0520	5/6/2020	**37**	**780**	**5,700**	**4.8**	**7.5 J**	**3,400**	**13,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-1020	10/26/2020	**37**	**860**	**6,400**	**3.6**	**6.8 J**	**3,800**	**14,000**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-0421	4/15/2021	**36**	**870**	**6,000**	**4.7**	**7.7 J**	**3,600**	**14,000**
W-123R	Downgradient	Moenkopi-Moqui	CH-DEV-W123R-0621	6/5/2021	**31**	**750**	**5,000**	**5.0**	--	**3,100**	**12,000 J**
W-123R	Downgradient	Moenkopi-Moqui	CH-ABREP-W123R-0621	6/15/2021	**36**	**750**	**5,300**	**4.1**	--	**3,500**	**12,000**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0821	8/3/2021	**39**	**730**	**5,400**	**5.2**	**7.8 J**	**3,500**	**12,000**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1021	10/23/2021	**38**	**720**	**6,300**	**5.6**	**7.6 J**	**4,200**	**11,000 J**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0422	4/28/2022	**43**	**800**	**15,000**	**5.9**	**7.7 J**	**12,000**	**16,000**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-SS10-0422	4/28/2022	**36.2**	**720**	**5,460**	**5.28/6 J**	**7.6 J**	**3,700**	**14,000**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1022	10/22/2022	**39**	**770**	**8,100**	**5.9**	**7.7 J**	**6,700**	**13,000**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0423	04/17/2023	**40**	**840**	**5,700**	**5.9**	**7.7 J**	**3,300**	**13,000**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1023	10/11/2023	**41**	**730**	**5,600**	**5.4**	**7.7 J**	**3,600**	**13,000**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0424	04/18/2024	**45**	**790**	**5,600**	**3.4**	**7.7 J**	**3,400**	**15,000**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1024	11/06/2024	**47**	**687**	**7,120**	**6.75**	**7.59 J**	**3,840**	**18,000**
EW-01	Extraction Well	Alluvial	CH-CCR-EW01-1023	10/23/2023	**16**	**810**	**6,100**	<0.4	**6.7 J**	**4,500**	**12,000**
EW-01	Extraction Well	Alluvial	CH-CCR-EW01-0424	05/02/2024	**4.2**	**880**	**3,900**	**0.84**	**7.3 J**	**2,600**	**9,200**
EW-01	Extraction Well	Alluvial	CH-CCR-EW01-1024	11/13/2024	**3.95**	**746**	**4,230**	**2.19**	**7.59 J**	**3,270**	**10,500**
EW-02	Extraction Well	Alluvial	EW02-018521	1/8/2021	--	**730**	**4,000**	**1.6**	--	**3,300**	**11,000**
EW-02	Extraction Well	Alluvial	CH-CCR-EW02-1023	10/23/2023	**27**	**750**	**6,800**	**3.3**	**7.3 J**	**5,400**	**13,000**
EW-02	Extraction Well	Alluvial	CH-CCR-EW02-0424	05/02/2024	**8.8**	**740**	**3,600**	**1.10**	**7.4 J**	**3,100**	**10,000**
EW-02	Extraction Well	Alluvial	CH-CCR-EW02-1024	11/13/2024	**36.2**	**762**	**6,880**	**1.40**	**6.68 J**	**4,410**	**15,800**
EW-03	Extraction Well	Alluvial	CH-CCR-EW03-1023	10/23/2023	**8.7**	**710**	**4,700**	**1.7**	**7.3 J**	**4,800**	**11,000**
EW-03	Extraction Well	Alluvial	CH-CCR-EW03-0424	05/02/2024	**14**	**760**	**3,800**	**1.10**	**7.3 J**	**3,100**	**11,000**
EW-03	Extraction Well	Alluvial	CH-CCR-EW03-1024	11/13/2024	**17.8**	**650**	**4,610**	**0.90**	**7.36 J**	**3,620**	**12,000**
EW-04	Extraction Well	Alluvial	EW04-010521	1/5/2021	--	**770**	**4,900**	**3.9**	--	**3,000**	**12,000**
EW-04	Extraction Well	Alluvial	CH-CCR-EW04-1023	10/23/2023	**31**	**840**	**5,200**	**4.3**	**7.8 J**	**2,800**	**12,000**
EW-04	Extraction Well	Alluvial	CH-CCR-EW04-0424	05/02/2024	**32**	**820**	**4,900**	**3.40**	**7.8 J**	**2,800**	**12,000**
EW-04	Extraction Well	Alluvial	CH-CCR-EW04-1024	11/13/2024	**31.1**	**711**	**5,670**	**2.97**	**7.68 J**	**3,380**	**13,300**
GSX-1R	Extraction Well	Alluvial	CH-CRT-GSX1R-0621	6/28/2021	**16**	--	--	**2.5**	--	--	--
GSX-1R	Extraction Well	Alluvial	CH-CRT2-GSX1R-0621	6/29/2021	**15**	--	--	**2.5**	--	--	--
GSX-1R	Extraction Well	Alluvial	CH-CRT3-GSX1R-0621	6/29/2021	**15**	--	--	**2.5**	--	--	--
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-0821	8/3/2021	**7.5**	**750**	**4,400**	**2.8**	**7.6 J**	**3,000**	**9,700**
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-1023	10/23/2023	**18**	**740**	**4,200**	**2.6**	**7.5 J**	**3,000**	**11,000**
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-0424	05/02/2024	**24**	**880**	**3,900**	**2.00**	**7.6 J**	**2,900**	**11,000**
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-1024	11/13/2024	**15**	**680**	**4,050**	**1.65**	**7.53 J**	**3,530**	**10,900**
GSX-3	Extraction Well	Alluvial	CH-CCR-GSX3-1024	11/13/2024	**52.4**	**832**	**8,720**	**5.44**	**7.39 J**	**4,610**	**19,400**
GSX-4	Extraction Well	Alluvial	CH-CCR-GSX4-1024	11/13/2024	**25**	**718**	**5,100**	**2.46**	**7.59 J**	**3,460**	**12,600**
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1216	12/21/2016	**0.85**	**850**	**2,400**	<0.80	**7.3**	**2,000**	**6,600**
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1216	12/21/2016	--	--	--	<0.80	--	--	--
M-43A	Supplementary	Alluvial	CH-CCR-M43-0421	4/14/2021	**2.8**	**900**	**2,100**	**0.49 J**	**7.3 J**	**2,100**	**6,200**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
M-43A	Supplementary	Alluvial	CH-CCR-M43-1021	10/22/2021	**1.3**	**780**	**2,100**	**0.2 J**	**7.4 J**	**2,200**	**6,200 J**
M-43A	Supplementary	Alluvial	CH-CCR-MW43A-0422	4/26/2022	**0.95**	**780**	**2,100**	**0.30 J**	**7.2 J**	**2,000**	**6,600**
M-43A	Supplementary	Alluvial	CH-CCR-M43A-0423	04/15/2023	**1.7 J**	**840**	**2,300**	<4	**7.6 J**	**2,200**	**3,500**
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1023	10/16/2023	**0.49**	**530**	**210**	<0.8	**7.5 J**	**1,900**	**6,500**
M-43A	Supplementary	Alluvial	CH-CCR-M43A-0424	04/18/2024	**1.2**	**700**	**2,300**	<0.4	**7.5 J**	**2,000**	**7,300**
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1024	10/31/2024	**0.525**	**522**	**2,160**	**1.0 J**	**7.58 J**	**2,000**	**5,580**
M-44D	Supplementary	Coconino	7795	12/2/2015	**0.26**	**91**	**1,100**	**0.70**	**7.49**	**310**	**2,200**
M-44D	Supplementary	Coconino	CH-M-44D-0316	3/10/2016	**0.23**	**88**	**1,100**	**0.72**	**7.13**	**310**	**2,200**
M-44D	Supplementary	Coconino	CH-CCR-M-44D-516	5/22/2016	**0.25**	**91**	**1,100**	**0.78**	**--**	**310**	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-M44D-816	8/26/2016	**0.24**	**90**	**1,100**	**0.77**	**7.1**	**320**	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-M44D-916	9/23/2016	**0.25**	**91**	**1,000**	**0.76**	**7.1**	**320**	**2,200**
M-44D	Supplementary	Coconino	CH-CCR-M44D-217	2/20/2017	**0.26**	**92**	**1,100**	**0.68**	**7.1**	**430**	**2,200**
M-44D	Supplementary	Coconino	CH-CCR-M44D-41317	4/13/2017	**0.25**	**93**	**1,200**	**0.72**	**7.6**	**320**	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-FD01-42417	4/24/2017	**0.26**	**91**	**1,000**	**0.73**	**7.2**	**330**	**2,200**
M-44D	Supplementary	Coconino	CH-CCR-M44D-42417	4/24/2017	**0.26**	**89**	**1,000**	**0.73**	**7.2**	**370**	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-M44D-52217	5/22/2017	**0.26**	**93**	**1,100**	**0.75**	**7.4**	**330**	**2,200**
M-44D	Supplementary	Coconino	CH-CCR-M44D-52517	5/25/2017	**0.26**	**96**	**1,400**	**0.76**	**7.4**	**400**	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-M44D-62917	6/29/2017	**0.25**	**88**	**1,200**	**0.79**	**7.2**	**340**	**2,200**
M-44D	Supplementary	Coconino	CH-CCR-M44D-72917	7/29/2017	**0.26**	**93**	**1,200**	**0.78**	**7.1**	**350**	**2,400**
M-44D	Supplementary	Coconino	CH-CCR-M44D-90517	9/5/2017	**0.27**	**93**	**1,100**	**0.77**	**7.1**	**330**	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-M44D-0520	5/7/2020	**--**	**89**	**970**	**0.81**	**--**	**310**	**--**
M-44D	Supplementary	Coconino	CH-CCR-M44D-1020	10/24/2020	**0.22**	**78**	**960**	**0.73**	**7.1 J**	**290**	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-M44D-0421	4/16/2021	**0.25**	**91**	**1,000**	**0.77 J**	**7.0 J**	**330 J**	**2,300**
M-44D	Supplementary	Coconino	*DUP* CH-CCR-FD05-0421	4/16/2021	**0.29**	**87**	**1,000**	**0.75 J**	**7.0 J**	**320 J**	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-M44D-1021	10/23/2021	**0.24 J**	**84**	**1,100**	**0.76 J**	**7.1 J**	**330 J**	**2,200 J**
M-44D	Supplementary	Coconino	CH-CCR-FD06-1021	10/23/2021	**0.43 J**	**83**	**1,100**	**0.66 J**	**--**	**410 J**	**--**
M-44D	Supplementary	Coconino	CH-CCR-M44D-0422	4/29/2022	**0.26**	**94**	**1,000**	**0.74 J**	**7.0 J**	**320**	**2,600**
M-44D	Supplementary	Coconino	CH-CCR-M44D-1022	10/19/2022	**0.25**	**90**	**1,000**	**0.91**	**7.2 J**	**320**	**2,200**
M-44D	Supplementary	Coconino	*DUP* CH-CCR-FD05-1022	10/19/2022	**0.26**	**90**	**1,000**	**0.89**	**7.2 J**	**320**	**2,200**
M-44D	Supplementary	Coconino	CH-CCR-M44D-0423	04/13/2023	**0.27 J**	**95**	**1,100**	<0.8	**7.5 J**	**320 J**	**4,600 J**
M-44D	Supplementary	Coconino	CH-CCR-M44D-1023	11/21/2023	**0.33**	**98**	**1,000**	<0.8	**7.2 J**	<400	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-FD05-1023	11/21/2023	**0.32**	**100**	**1,100**	<0.8	**7.1 J**	<400	**2,300**
M-44D	Supplementary	Coconino	CH-CCR-M44D-0424	05/02/2024	**0.27**	**93**	**1,000**	**0.62**	**7.2 J**	**290**	**2,900 J**
M-44D	Supplementary	Coconino	*DUP* CH-CCR-FD06-0424	05/02/2024	**0.27**	**92**	**1,000**	**0.69**	**7.2 J**	**280**	**2,200 J**
M-44D	Supplementary	Coconino	CH-CCR-M44D-1024	11/11/2024	**0.238**	**77.2**	**1,110**	**0.717**	**7.53 J**	**309**	**2,300**
M-45A	Supplementary	Alluvial	CH-M-45A-0913	9/17/2013	**--**	**--**	**960**	**--**	**--**	**2,200**	**--**
M-45A	Supplementary	Alluvial	CH-M-45A-0913_C29829-8	9/17/2013	**0.994**	**725**	**--**	**1.0**	**6.8**	**--**	**5,090**
M-45A	Supplementary	Alluvial	CH-M-45A-1113	11/21/2013	**--**	**--**	**860**	**--**	**--**	**2,100**	**--**
M-45A	Supplementary	Alluvial	CH-M-45A-1113_C31100-6	11/21/2013	**1.01**	**713**	**--**	**0.67**	**7.02**	**--**	**3,130**
M-45A	Supplementary	Alluvial	CH-M-45A-0314	3/26/2014	**1.01**	**736**	**--**	**0.83**	**6.98**	**--**	**5,090**
M-45A	Supplementary	Alluvial	CH-M-45A-0614	6/10/2014	**0.841**	**760**	**770**	**0.90**	**7.16**	**2,200**	**4,990**
M-45A	Supplementary	Alluvial	CH-M-45A-0615	6/16/2015	**1.13**	**701**	**843**	**0.90**	**7.08**	**2,730**	**5,370**
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1216	12/21/2016	**1.1**	**630**	**800**	**0.76**	**7.2**	**2,100**	**4,400**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1216	12/21/2016	--	--	--	**0.78**	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45-0421	4/14/2021	**1.1**	**690**	**810**	**0.65 J**	**7.2 J**	**2,300**	**4,200**
M-45A	Supplementary	Alluvial	CH-CCR-M45-1021	10/22/2021	**1.0**	**640**	**790**	**0.57 J**	**7.1 J**	**2,400**	**4,200 J**
M-45A	Supplementary	Alluvial	CH-CCR-M45A-0422	4/26/2022	**1.1**	**680**	**700**	**0.64 J**	**7.0 J**	**2,200**	**4,600**
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1022	10/21/2022	**1.1**	**650**	**800**	<0.8	**7.0 J**	**2,400**	**4,500**
M-45A	Supplementary	Alluvial	CH-CCR-M45A-0423	04/15/2023	**1.2 J**	**720**	**730**	<4	**7.2 J**	**2,400**	**2,600**
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1023	10/17/2023	**1.0**	**600**	**700**	<0.8	**7.3 J**	**2,100**	**4,700**
M-45A	Supplementary	Alluvial	CH-CCR-M45A-0424	04/18/2024	**1.1**	**630**	**620**	**0.50**	**7.2 J**	**2,100**	**4,800**
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1024	11/04/2024	**1.0**	**548**	**656**	**0.53**	**7.57 J**	**2,150**	**4,910**
M-46A	Supplementary	Alluvial	CCH-CCR-M46A-112619	11/26/2019	--	--	--	--	--	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46A-112619	11/26/2019	**0.64**	**1,300**	**6,400**	<0.80	**7.0 J**	**1,900**	**13,000**
M-46A	Supplementary	Alluvial	CH-CCR-M46-0520	5/5/2020	**0.64**	**1,300**	**7,100 J**	<0.8 UJ	**7.4 J**	**7,800 J**	**13,000**
M-46A	Supplementary	Alluvial	CH-CCR-M46-1020	10/25/2020	**0.58**	**1,300**	**6,900**	**0.51**	**7.2 J**	**2,100**	**13,000**
M-46A	Supplementary	Alluvial	CH-CCR-M46-0421	4/14/2021	**0.66**	**1,400**	**6,900**	**0.68 J**	**7.2 J**	**2,200**	**14,000**
M-46A	Supplementary	Alluvial	CH-CCR-M46-1021	10/22/2021	**0.64**	**1,200**	**6,700**	**0.97**	**7.1 J**	**2,300**	**12,000 J**
M-46A	Supplementary	Alluvial	CH-CCR-M46A-0422	4/27/2022	**0.70**	**1,200**	**6,300**	**0.74 J**	**7.0 J**	**2,100**	**13,000**
M-46A	Supplementary	Alluvial	CH-CCR-M46A-1022	10/21/2022	**0.70**	**1,200**	**6,500**	<0.8	**7.2 J**	**2,400**	**10,000**
M-46A	Supplementary	Alluvial	CH-CCR-M46A-0423	04/15/2023	**0.74 J**	**1,100**	**5,400**	<4	**7.4 J**	**2,600**	**11,000**
M-46A	Supplementary	Alluvial	CH-CCR-M46A-1023	10/16/2023	**0.64**	**950**	**1,700**	**1.0**	**7.3 J**	**2,800**	**12,000**
M-46A	Supplementary	Alluvial	CH-CCR-M46A-0424	04/17/2024	**0.65**	**850**	**4,500**	**0.42**	**7.2 J**	**2,600**	**12,000**
M-46A	Supplementary	Alluvial	CH-CCR-M46A-1024	11/12/2024	**0.625**	**789**	**5,190**	**0.82**	**7.10 J**	**3,100**	**12,000**
M-63A	Supplementary	Alluvial	7871	11/30/2015	**0.12**	**160**	**260**	<0.40	**7.72**	**700**	**1,600**
M-63A	Supplementary	Alluvial	CH-M-63A-0316	3/10/2016	**0.27**	**160**	**620**	<0.40	**7.53**	**620**	**2,100**
M-63A	Supplementary	Alluvial	CH-M-63A-0316	3/10/2016	--	--	--	<0.40	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-050516	5/5/2016	**0.29**	**160**	**660**	<0.40	--	**590**	**2,100**
M-63A	Supplementary	Alluvial	CH-CCR-M100-816	8/24/2016	**0.18**	**160**	**260**	**0.46**	**7.4**	**630**	**1,600**
M-63A	Supplementary	Alluvial	CH-CCR-M100-816	8/24/2016	--	--	--	<0.40	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-816	8/24/2016	**0.17**	**160**	**270**	<0.40	**7.4**	**640**	**1,600**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-816	8/24/2016	--	--	--	<0.40	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-916	9/21/2016	**0.20**	**160**	**330**	<0.40	**7.6**	**640**	**1,700**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-916	9/21/2016	--	--	--	<0.40	--	--	--
M-63A	Supplementary	Alluvial	CH-APP-M63A-1016	10/4/2016	--	**160**	**530**	<0.40	**7.8**	**580**	**1,900**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-217	2/20/2017	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-41317	4/13/2017	**0.27**	**160**	**580**	<0.40	**7.7**	**590**	**2,100**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-41317	4/13/2017	--	--	--	<0.40	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-42617	4/26/2017	**0.26**	**150**	**570**	<0.40	**7.3**	**640**	**2,000**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-42617	4/26/2017	--	--	--	<0.40	--	--	--
M-63A	Supplementary	Alluvial	CH-APP-M63A-52217	5/22/2017	**0.22**	**150**	**450**	<0.40	**7.9**	**640**	**1,800**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52217	5/22/2017	**0.22**	**160**	**440**	<0.40	**7.8**	**620**	**1,800**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52217	5/22/2017	--	--	--	<0.40	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52417	5/24/2017	**0.22**	**150**	**410**	<0.40	**7.7**	**620**	**1,800**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52417	5/24/2017	--	--	--	<0.40	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-63017	6/30/2017	**0.19**	**150**	**300**	<0.40	**7.6**	**670**	**1,600**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD02-72817	7/28/2017	**0.19**	**180**	**270**	<0.80	**7.5**	**660**	**1,800**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-72817	7/28/2017	**0.19**	**170**	**320**	<0.40	**7.4**	**720**	**1,800**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-90717	9/7/2017	**0.19**	**170**	**290**	<0.40	**7.3**	**700**	**1,700**
M-63A	Supplementary	Alluvial	CH-APP-M63A-62419	6/24/2019	**0.23**	**150**	**330**	<0.40	**7.5**	**600**	**1,700**
M-63A	Supplementary	Alluvial	CH-CCR-M63-0421	4/15/2021	**0.24**	**150**	**450**	**0.27 J**	**7.7 J**	**540**	**1,800**
M-63A	Supplementary	Alluvial	CH-CCR-M63-1021	10/24/2021	**0.23**	**150**	**360**	**0.25 J**	**7.6 J**	**600**	**1,500 J**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-0422	4/27/2022	**0.26**	**190**	**420**	**0.22 J**	**7.4 J**	**760**	**1,900**
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD05-0422	4/27/2022	**0.23**	**190**	**380**	**0.22 J**	**7.4 J**	**720**	**1,900**
M-63A	Supplementary	Alluvial	CH-CCR-SS09-0422	4/27/2022	**0.215**	**182**	**406**	0.25 J/<2.5	**8.2 J**	**729**	**1,910**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-1022	10/21/2022	**0.23**	**180**	**450**	<0.8	**7.5 J**	**710**	**1,900**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-0423	04/15/2023	**0.24 J**	**200**	**440**	<4	**7.2 J**	**630**	**1100 J**
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD05-0423	04/15/2023	**0.27 J**	**210**	**440**	<4	**7.5 J**	**620**	**1900 J**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-1023	10/11/2023	**0.21**	**130**	**160**	<0.4	**7.6 J**	**480**	**1,600**
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD06-1023	10/11/2023	**0.20**	**130**	**150**	<0.4	**7.7 J**	**480**	**1,600**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-0424	04/17/2024	**0.23**	**170**	**410**	<0.4	**7.6 J**	**530**	**1,900**
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD05-0424	04/17/2024	**0.23**	**170**	**390**	<0.4	**7.6 J**	**530**	**1,800**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-1024	10/21/2024	**0.22**	**154**	**281**	**0.191 J**	**7.61 J**	**667**	**1,740**
M-63A	Supplementary	Alluvial	CH-CCR-FD05-1024	10/21/2024	**0.22**	**151**	**283**	**0.225 J**	**7.68 J**	**699**	**1,740**
W-125	Supplementary	Coconino	7794	12/2/2015	**0.17**	**130**	**820**	**0.57**	**7.24**	**320**	**1,900**
W-125	Supplementary	Coconino	CH-W-125-0316	3/9/2016	**0.15**	**120**	**780**	**0.48**	**7.63**	**330**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-516	5/22/2016	**0.16**	**120**	**810**	**0.53**	**--**	**320**	**1,900**
W-125	Supplementary	Coconino	CH-CCR-W125-816	8/26/2016	**0.16**	**130**	**820**	**0.55**	**7.4**	**320**	**1,900**
W-125	Supplementary	Coconino	CH-CCR-W125-916	9/23/2016	**0.17**	**120**	**760**	**0.57**	**7.6**	**310**	**1,900**
W-125	Supplementary	Coconino	CH-CCR-W125-217	2/20/2017	**0.17**	**130**	**760**	<4.0	**7.5**	**320**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-41317	4/13/2017	**0.16**	**130**	**810**	**0.52**	**7.9**	**320**	**1,900**
W-125	Supplementary	Coconino	CH-CCR-W125-42617	4/26/2017	**0.17**	**120**	**760**	**0.54**	**7.7**	**320**	**1,900**
W-125	Supplementary	Coconino	CH-CCR-FD02-52217	5/22/2017	**0.17**	**130**	**790**	**0.53**	**7.7**	**320**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-52217	5/22/2017	**0.17**	**130**	**790**	**0.52**	**7.8**	**320**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-52417	5/24/2017	**0.17**	**130**	**800**	**0.55**	**7.7**	**330**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-62917	6/29/2017	**0.15**	**120**	**800**	**0.56**	**7.7**	**340**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-72717	7/27/2017	**0.18**	**130**	**780**	<0.80	**7.6**	**330**	**1,900**
W-125	Supplementary	Coconino	CH-CCR-FD02-90617	9/6/2017	**0.17**	**130**	**800**	**0.54**	**7.6**	**330**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-90617	9/6/2017	**0.17**	**130**	**800**	**0.54**	**7.6**	**330**	**1,900**
W-125	Supplementary	Coconino	CH-CCR-W125-0520	5/6/2020	**--**	**130**	**680**	<0.8	**--**	**320**	**--**
W-125	Supplementary	Coconino	CH-CCR-W125-1020	10/24/2020	**0.16**	**120**	**3,000**	**0.53**	**7.5 J**	**1,200**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-0421	4/15/2021	**0.18**	**130**	**730**	**0.55 J**	**7.7 J**	**350 J**	**1,700**
W-125	Supplementary	Coconino	CH-CCR-W125-1021	10/23/2021	**0.18**	**120**	**750**	**0.56 J**	**7.7 J**	**310**	**1,700 J**
W-125	Supplementary	Coconino	CH-CCR-FD05-1021	10/23/2021	**0.16**	**120**	**760**	**0.53 J**	**7.7 J**	**380**	**1600 J**
W-125	Supplementary	Coconino	CH-CCR-W125-0422	4/28/2022	**0.20**	**120**	**720**	**0.57 J**	**7.5 J**	**320**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-1022	10/22/2022	**0.19**	**120**	**670**	<0.8	**7.6 J**	**320**	**1,700**
W-125	Supplementary	Coconino	CH-CCR-W125-0423_A	04/17/2023	**0.18**	**130**	**690**	<0.8	**7.7 J**	**320**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-0423	04/25/2023	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-125	Supplementary	Coconino	CH-CCR-W125-1023	10/17/2023	**0.15**	**110**	**720**	<0.8	**7.6 J**	**320**	**1,800**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
W-125	Supplementary	Coconino	CH-CCR-W125-0424	04/18/2024	**0.20**	**120**	**680**	0.51	**7.7 J**	**300**	**1,800**
W-125	Supplementary	Coconino	CH-CCR-W125-1024	11/06/2024	**0.18**	**102**	**695**	**0.279**	**7.96 J**	**303**	**1,820**
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-010318	1/3/2018	--	--	**6,100**	**3.7**	--	**3,800**	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W-126-125128	12/5/2018	**43**	**760**	**7,400**	**3.5 J, UJ**	**7.4 J**	**4,200**	**17,000**
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-41119	4/11/2019	**46**	**740**	**6,700**	**3.7**	**7.4 J**	**3,900**	**16,000**
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-51519	5/15/2019	--	--	--	**4.0**	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-62419	6/24/2019	**45**	--	**7,000**	**3.8**	**7.4**	**3,800**	**17,000**
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-71119	7/11/2019	--	--	**7,200**	**3.7**	--	**3,900**	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-81919	8/19/2019	--	--	**7,200**	**2.8**	--	**4,200**	--
W-126	Supplementary	Moenkopi-Moqui	*DUP* CH-APP-W126FD-111419	11/14/2019	--	--	**7,200**	**4.1**	--	**4,200**	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-111419	11/14/2019	--	--	**7,000**	**4.0**	--	**4,200**	--
W-126	Supplementary	Moenkopi-Moqui	CCH-CCR-W126-112619	11/26/2019	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-112619	11/26/2019	**48**	**720**	**7,000**	**3.6**	**7.3 J**	**4,200**	**15,000**
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-0520	5/5/2020	**50**	**780**	**6,900**	**4.1**	**7.5 J**	**4,100**	**16,000**
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-1020	10/25/2020	**43**	**720**	**6,900**	**4.2**	**7.5 J**	**4,500**	**15,000**
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-0421	4/15/2021	**41**	**790**	**6,700**	**3.9**	**7.6 J**	**4,400**	**16,000**
W-126R	Supplementary	Moenkopi-Moqui	CH-DEV-W126R-0621	6/4/2021	**40**	**750**	**6,600**	**5.0**	--	**3,800**	**16,000 J**
W-126R	Supplementary	Moenkopi-Moqui	CH-ABREP-W126R-0621	6/15/2021	**42**	**760**	**6,400**	**3.6**	--	**3,800**	**14,000**
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0821	8/3/2021	**44**	**730**	**6,300**	**4.6**	**7.6 J**	**4,000**	**14,000**
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-1021	10/23/2021	**46**	**730**	**7,400**	**5.6**	**7.5 J**	**5,100**	**12,000 J**
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0422	4/27/2022	**49**	**820**	**15,000**	**5.6**	**7.5 J**	**11,000**	**16,000**
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-126R-1022	10/21/2022	**47**	**740**	**5,500**	**5.7**	**7.5 J**	**3,800**	**16,000**
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0423	04/15/2023	**44 J**	**830**	**5,400**	**5.3**	**7.6 J**	**3,700**	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W-126R-1023	10/16/2023	**43**	**740**	**6,300**	**5.0**	**7.6 J**	**3,700**	**14,000**
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0424	04/17/2024	**47**	**790**	**6,100**	**4.2**	**7.5 J**	**3,600**	**17,000**
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-1024	10/31/2024	**53.5**	**670**	**213**	**0.84 J**	**7.52 J**	**751**	**16,500**
FAP	Supplementary	Surface Pond	CH-FAP-01052012	1/5/2012	**110**	--	**10,000**	**21**	**7.07**	**8,400**	**26,000**
FAP	Supplementary	Surface Pond	CH-FAP-1172012	11/7/2012	**130**	**740**	**11,000**	**30**	--	**9,800**	**30,000**
FAP	Supplementary	Surface Pond	CH-FAP-031313	3/13/2013	--	--	**10,700**	--	--	**10,400**	--
FAP	Supplementary	Surface Pond	CH-FAP-031313_C26660-2	3/13/2013	**118**	**870**	--	**15.6**	**6.56**	--	**30,200**
FAP	Supplementary	Surface Pond	CH-FAP-031313_C26660-2F	3/13/2013	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0913	9/18/2013	--	--	**10,000**	--	--	**9,600**	--
FAP	Supplementary	Surface Pond	CH-FAP-0913_C29829-11	9/18/2013	**137**	**655**	--	**19.7**	**5.69**	--	**34,600**
FAP	Supplementary	Surface Pond	CH-FAP-0913_C29829-11F	9/18/2013	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0514	5/22/2014	--	--	**10,000**	--	--	**9,900**	--
FAP	Supplementary	Surface Pond	CH-FAP-0514_C34218-5	5/22/2014	**139**	**694**	--	**20.3**	**6.3**	--	**34,800**
FAP	Supplementary	Surface Pond	CH-FAP-1014	10/13/2014	**152**	**860**	**10,600**	**37.9**	**5.8**	**10,700**	**36,800**
FAP	Supplementary	Surface Pond	CH-FAP-0115	1/17/2015	--	--	--	**40.6**	**6.99**	--	**34,200**
FAP	Supplementary	Surface Pond	CH-FAP-0515	5/4/2015	**131**	**832**	**8,450**	**24.7**	**5.46**	**9,140**	**35,000**
FAP	Supplementary	Surface Pond	CH-APP-FAP-0615	6/15/2016	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-070516	7/5/2016	--	--	--	**49**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-Flyash-1016	10/12/2016	**210**	--	**15,000**	**53**	**3.0**	**15,000**	**38,000**
FAP	Supplementary	Surface Pond	CH-APP-FPF-1116	11/17/2016	--	--	--	**29**	--	--	**21,000**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1216	12/21/2016	**170**	**600**	**15,000**	**55**	**3.1**	**17,000**	**15,000**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1216	12/21/2016	--	--	--	**50**	--	--	--
FAP	Supplementary	Surface Pond	CH-CCR-M100-1216	12/21/2016	**170**	**610**	**15,000**	**55**	**3.1**	**16,000**	**21,000**
FAP	Supplementary	Surface Pond	CH-CCR-M100-1216	12/21/2016	--	--	--	**51**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-60717	6/7/2017	**230**	--	**17,000**	**53**	**3.8**	**17,000**	**46,000**
FAP	Supplementary	Surface Pond	CH-APP-FAP-60717	6/7/2017	**230**	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-70217	7/2/2017	**240**	**690**	--	**57**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-10617	10/6/2017	**270**	--	**19,000**	**3.9**	**3.5**	**20,000**	**56,000**
FAP	Supplementary	Surface Pond	CH-APP-FAP-10617	10/6/2017	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FFAP-10617	10/6/2017	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-33019	3/30/2019	**350**	**730**	**24,000**	**5.1R**	**6.7 J**	**24,000**	**74,000**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-33019	3/30/2019	--	--	--	**68 J**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-42919	4/29/2019	**310**	--	**24,000**	**69 J**	**7.1 J**	**25,000**	**77,000**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1021	10/31/2021	**680**	**680**	**54,000**	**290**	**5.8 J**	**52,000**	**160,000**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-0422	4/21/2022	**610**	**710**	**49,000**	**120**	**6.5 J**	**46,000**	**100,000**
FAP	Supplementary	Surface Pond	CH-CCR-SS11-0422	4/21/2022	**632**	**1,340**	**48,400**	**69.6 J/21.2**	**6.4 J**	**46,200 J**	**149,000**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1022	10/26/2022	**510**	**800**	**41,000**	**84**	**6.8 J**	**38,000**	**130,000 J**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-0423	04/25/2023	**500**	**680**	**50,000**	<400	**7.1 J**	**44,000**	**150,000**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1023	10/13/2023	**1,000**	**130**	**78,000**	**19**	**6.1 J**	**69,000**	**180,000**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-0424	05/02/2024	**830**	**490**	**11,000**	<400	**7.1 J**	**5,800**	**120,000**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1024	11/13/2024	**1,120**	**288**	**99,000**	**113**	**6.79 J**	**48,600**	**259,000**
Bud	Supplementary	Seepage	Bud Hunt	10/8/2012	**0.107**	**93.9**	**310**	**0.80**	**7.47**	**390**	**1,100**
Bud	Supplementary	Seepage	CH-BUD-0613	6/5/2013	--	--	**320**	--	--	**240**	--
Bud	Supplementary	Seepage	CH-BUD-0613_C28117-4	6/5/2013	**0.112**	**96.2**	--	**0.44**	**7.33**	--	**1,080**
Bud	Supplementary	Seepage	CH-BUD-0614	6/11/2014	**0.14**	**85.9**	**320**	**0.49**	**8.14**	**240**	**1,040**
Bud	Supplementary	Seepage	CH-BUD-0615	6/17/2015	**0.112**	**90.7**	**319**	**0.45**	**7.82**	**253**	**1,060**
Bud	Supplementary	Seepage	CH-APP-BudHunt-1016	10/5/2016	**0.11**	**95**	**350**	**0.41**	**7.6**	**270**	**1,100**
Bud	Supplementary	Seepage	CH-APP-BudHunt-60617	6/6/2017	**0.10**	**93**	**310**	**0.41**	**7.9**	**260**	**1,000**
Bud	Supplementary	Seepage	CH-CCR-BudHunt-1022	10/21/2022	**0.15**	**92**	**320**	<0.8	**7.7 J**	**260**	**1,000**
Bud	Supplementary	Seepage	CH-CCR-BudHunt-0423	04/19/2023	**0.11**	**99**	**320**	<0.8	**7.7 J**	**260**	**1,100**
Bud	Supplementary	Seepage	CH-CCR-BudHunt-1023	10/17/2023	**0.14**	**80**	**120**	<0.8	**7.7 J**	**290**	**1,100**
Bud	Supplementary	Seepage	CH-CCR-BudHunt-0424	04/23/2024	**0.12 J**	**100 J**	**310**	**0.40**	**7.6 J**	**240**	**1,000**
Bud	Supplementary	Seepage	CH-CCR-BUDHUNT-1024	10/29/2024	<0.15	**81.3**	**315**	**0.438 J**	**7.85 J**	**247**	**1,010**
Geronimo C	Supplementary	Seepage	CH-CCR-GeronC-0421	4/15/2021	**68**	**780**	**8,800**	**7.2**	**7.1 J**	**5,700**	**20,000**
Geronimo C	Supplementary	Seepage	CH-CCR-GeronimoC-0422	4/20/2022	**59**	**730**	**8,200**	**5.2**	**7.1 J**	**5,300**	**14,000**
Geronimo C	Supplementary	Seepage	CH-CCR-GeronimoC-0423	04/25/2023	**57**	**690**	**6,600**	<40	**7.2 J**	**4,800**	**16,000**
Geronimo C	Supplementary	Seepage	CH-CCR-GeronimoC-1023	10/23/2023	**58**	**780**	**7,000**	**7.0**	**7.1 J**	**4,500**	**16,000**
Geronimo C	Supplementary	Seepage	CH-CCR-Geronimo-0424	05/02/2024	**62**	**860**	**6,700**	**6.10**	**7.3 J**	**4,000**	**15,000**
Geronimo D	Supplementary	Seepage	CH-CCR-GeronD-0421	4/15/2021	**58**	**750**	**7,700**	**7.1**	**7.5 J**	**5,200**	**17,000**
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-0422	4/20/2022	**59**	**740**	**7,900**	**6.3**	**7.5 J**	**5,100**	**14,000**
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-1022	10/27/2022	**51**	**750**	**7,500**	**1.9**	**7.5 J**	**5,300**	**18,000**
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-0423	04/25/2023	**58**	**800**	**6,500**	**8.2**	**7.5 J**	**4,500**	**16,000**
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-1023	10/23/2023	**66**	**820**	**4,800**	**3.6**	**7.4 J**	**3,400**	**12,000**

Table C-1
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
			Constituent:		Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
			Filtered:		N	N	N	N	N	N	N
			Units:		mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
			FAP GWPS		--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**							
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-0424	05/02/2024	**74**	**890**	**8,000**	**5.90**	**7.5 J**	**4,600**	**21,000**
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0421	4/15/2021	**29**	**760**	**5,200**	**3.9**	**7.7 J**	**3,300**	**11,000**
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0422	4/20/2022	**29**	**790**	**5,300**	**3.6**	**7.5 J**	**3,300**	**9,500**
Hunt	Supplementary	Seepage	CH-CCR-HuntB-1022	10/27/2022	**31**	**790**	**4,900**	**3.3**	**7.6 J**	**3,300**	**13,000**
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0423	04/25/2023	**31**	**810**	**5,200**	**4.2**	**7.8 J**	**3,100**	**12,000**
Hunt	Supplementary	Seepage	CH-CCR-HuntB-1023	10/23/2023	**34**	**810**	**5,400**	**4.2**	**7.5 J**	**3,400**	**12,000**
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0424	05/02/2024	**38**	**870**	**5,000**	**3.30**	**7.5 J**	**3,100**	**12,000**
Hunt	Supplementary	Seepage	CH-CCR-HuntB-1024	11/12/2024	**35.4**	**760**	**6,120**	**3.27**	**7.43 J**	**3,640**	**14,400**

Notes:

GWPS exceedences are shown in red text.

Duplicate sample dates under the same location are either field duplicates or are instances of samples with multiple field/lab sample IDs on the same date.

Abbreviations and Data Qualifiers:

< = less than

BTV = Background Threshold Value

CCR = Coal Combustion Residual

degrees C = degrees Celsius

FAP = Fly Ash Pond

GWPS = Groundwater Protection Standard

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

mg/L = milligrams per liter

pCi/L = Picocuries per liter

R = rejected

su = standard units

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table C-2
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																		
				Constituent:	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Selenium	Thallium	Total Radium
				Filtered:	N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				FAP GWPS	*0.006*	*0.01*	*0.01*	*2*	*0.004*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.418*	*0.002*	*0.1*	*0.05*	*0.05*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																			
M-64A	Background	Alluvial	CH-CCR-M100-217	2/20/2017	<0.0010	0.00087	--	0.036	<0.0010	0.00011	0.0018	--	0.0024	--	<8.0	<0.00050	0.26	<0.00020	0.0065	0.00074	--	<0.00010	0.8
M-64A	Background	Alluvial	CH-CCR-M64A-217	2/20/2017	<0.0010	0.00094	--	0.034	<0.0010	<0.00010	0.0021	--	0.0015	--	<0.80	<0.00050	0.27	<0.00020	0.0061	0.00082	--	<0.00010	<0.6
M-64A	Background	Alluvial	CH-CCR-FD02-41217	4/12/2017	<0.0010	0.0026	--	0.019	<0.0010	<0.00010	0.00078	--	0.00082	--	<2.0	<0.00050	0.25	<0.00020	0.0053	<0.00050	--	<0.00010	0.8
M-64A	Background	Alluvial	CH-CCR-M64A-41217	4/12/2017	<0.0010	0.0026	--	0.019	<0.0010	<0.00010	0.0015	--	0.00068	--	<0.80	0.00071	0.25	<0.00020	0.0050	<0.00050	--	<0.00010	<0.6
M-64A	Background	Alluvial	CH-CCR-M64A-42517	4/25/2017	<0.0010	0.0017	--	0.015	<0.0010	<0.00010	<0.00050	--	0.00056	--	<0.80	<0.00050	0.27	<0.00020	0.0050	<0.00050	--	<0.00010	1.6
M-64A	Background	Alluvial	CH-CCR-M64A-51817	5/18/2017	<0.0010	0.0016	--	0.012	<0.0010	<0.00010	<0.00050	--	<0.00050	--	<0.80	<0.00050	0.28	<0.00020	0.0042	<0.00050	--	<0.00010	1.3
M-64A	Background	Alluvial	CH-CCR-FD01-52417	5/24/2017	<0.0010	0.0023	--	0.014	<0.0010	<0.00010	0.00063	--	0.00052	--	<0.80	<0.0020	0.27	<0.00020	0.0050	<0.00050	--	<0.00040	1.1
M-64A	Background	Alluvial	CH-CCR-M64A-52417	5/24/2017	<0.0010	0.0019	--	0.014	<0.0010	<0.00010	<0.00050	--	<0.00050	--	<0.80	<0.0020	0.27	<0.00020	0.0051	<0.00050	--	<0.00040	0.4
M-64A	Background	Alluvial	CH-CCR-M64A-63017	6/30/2017	<0.0010	0.0033	--	0.017	<0.0010	<0.00010	<0.00050	--	0.0011	--	<0.80	<0.00050	0.25	<0.00020	0.0050	<0.00050	--	<0.00010	<0.7
M-64A	Background	Alluvial	CH-CCR-FD01-72717	7/27/2017	<0.0020	0.0027	--	0.017	<0.0010	<0.00020	<0.0010	--	<0.0010	--	<0.80	<0.0010	0.25	<0.00020	0.0051	<0.0010	--	<0.00020	<0.7
M-64A	Background	Alluvial	CH-CCR-M64A-72717	7/27/2017	<0.0020	0.0028	--	0.017	<0.0010	<0.00020	<0.0010	--	<0.0010	--	<0.80	<0.0010	0.25	<0.00020	0.0051	<0.0010	--	<0.00020	<0.7
M-64A	Background	Alluvial	CH-CCR-M64A-90717	9/7/2017	<0.0040	0.0025	--	0.017	<0.0010	<0.00040	<0.0040	--	<0.0020	--	<0.80	<0.0020	0.26	<0.00020	0.0059	<0.0020	--	<0.00040	<0.7
M-64A	Background	Alluvial	CH-CCR-M64A-120817	12/8/2017	--	--	--	--	--	--	--	--	--	--	<0.80	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-21518	2/15/2018	<0.0020	<0.0010	--	0.015	<0.0010	<0.00020	0.0022	--	<0.00050	--	<0.80	<0.0010	0.27	<0.00020	0.0058	<0.00050	--	<0.00020	0.966
M-64A	Background	Alluvial	CH-CCR-M-64A-51918	5/19/2018	<0.0020	0.0012	--	0.012	--	<0.00020	<0.0020	--	<0.0010	--	<0.80	<0.0010	0.26	--	0.0055	<0.0010	--	<0.00020	<0.7
M-64A	Background	Alluvial	CH-CCR-M-64A-102218	10/22/2018	--	0.0013	--	0.011	--	<0.00010	<0.0010	--	<0.00050	--	<0.80	<0.00050	0.25	--	0.0052	<0.00050	--	<0.00010	--
M-64A	Background	Alluvial	*DUP* CH-CCR-FD-01-102218	10/22/2018	--	0.0011	--	0.011	--	<0.00010	<0.0010	--	<0.00050	--	<2.0	<0.00050	0.25	--	0.0050	<0.00050	--	<0.00010	--
M-64A	Background	Alluvial	CH-CCR-M64A-21319	2/13/2019	<0.0010	0.00089	--	0.012	<0.0010	<0.00010	<0.0010	--	<0.00050	--	<0.80	<0.00050	0.29	<0.00020	0.0049	0.00052	--	<0.00010	<0.6
M-64A	Background	Alluvial	CH-CCR-M64A-41119	4/11/2019	--	0.00058	--	0.011	--	<0.0001	<0.001	--	<0.0005	--	<0.80	<0.0005	0.27	--	0.0050	0.00053	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-41619	4/16/2019	--	0.00058	--	0.012	--	<0.00010	<0.0010	--	<0.00050	--	<0.80	<0.00050	0.25	--	0.0050	0.00078	--	<0.00010	<0.7
M-64A	Background	Alluvial	CH-CCR-M64A-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	*DUP* CH-CCR-FD01-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-102419	10/24/2019	<0.0020	0.0018	--	0.013 J	<0.0010	<0.00020	<0.0020	--	<0.0010	--	<0.80	<0.0010	0.26	<0.00020	0.0059	<0.0010	--	<0.00020	--
M-64A	Background	Alluvial	CH-CCR-M64-0520	5/6/2020	--	0.00086	0.00050	0.013	<0.001	<0.0001	<0.001	--	<0.0005	<0.0005	<0.8	<0.0005	0.47	--	0.0042	<0.001	--	--	<0.8
M-64A	Background	Alluvial	*DUP* CH-CCR-FD05-0520	5/6/2020	--	<0.001	0.00093	0.012	<0.001	<0.0001	<0.002	--	<0.001	<0.0005	<0.8	<0.0005	0.47	--	0.0043	<0.001	--	--	<0.8
M-64A	Background	Alluvial	CH-CCR-M64-1020	10/24/2020	<0.002	0.0036	<0.002	0.012	<0.001	<0.0002	<0.002	--	0.00025	<0.002	0.28	0.001	0.31	<0.0002	0.0051	0.0044	--	<0.0002	<0.8
M-64A	Background	Alluvial	CH-CCR-M64-0421	4/15/2021	<0.002	0.0021	0.0027	0.012	<0.001	<0.0002	<0.002	--	<0.001	<0.001	0.21 J	<0.001	0.30	<0.0002	0.0049	0.0022	--	<0.0002	<0.7
M-64A	Background	Alluvial	CH-CCR-M64-1021	10/22/2021	0.00013 J	<0.0005	0.0015	0.012	<0.001	0.000036 J	0.0005 J	--	<0.0005	0.000091 J	0.38 J	<0.0005	0.28	<0.0002	0.0046	0.0002 J	--	<0.0001	<0.6
M-64A	Background	Alluvial	CH-CCR-M64A-0422	4/26/2022	0.000054 J	0.0015	0.0018	0.011	<0.001	<0.0001	<0.001	--	<0.0005	<0.0005	0.34 J	<0.0005	0.28	<0.0002	0.0041	0.00075	--	<0.0001	1.0
M-64A	Background	Alluvial	CH-CCR-M64A-1022	10/22/2022	<0.001	0.00094	0.00076	0.013	<0.001	<0.0001	<0.001	--	<0.0005	<0.0005	<0.8	<0.0005	0.25	<0.0002	0.042	0.00067	--	<0.0001	<0.6
M-64A	Background	Alluvial	CH-CCR-M64A-0423	04/17/2023	<0.01	0.0037	<0.005	0.014	<0.001	<0.001	<0.01	--	<0.005	<0.005	<10	<0.005	0.29	<0.0002	0.0044 J	<0.005	--	<0.001	0.5
M-64A	Background	Alluvial	CH-CCR-M64A-1023	10/11/2023	<0.01	0.0073	0.0071	0.012	<0.001	<0.001	<0.01	--	<0.005	<0.005	<0.4	<0.005	0.28	<0.0002	<0.005	<0.005	--	<0.001	0.7
M-64A	Background	Alluvial	CH-CCR-M64A-0424	04/18/2024	<0.001	0.0016	0.0014	0.012	<0.001	<0.0001	<0.001	--	<0.0005	<0.0005	<0.4	<0.0005	<0.4	<0.0002	0.0040	0.0012	--	<0.0001	<0.8
M-64A	Background	Alluvial	CH-CCR-MW64A-1024	10/30/2024	<0.0025	<0.0025	<0.0025	0.0123	<0.00044	<0.0004	<0.01	--	<0.0025	<0.0025	0.798 J	<0.0025	0.223	<0.0002	0.0033	<0.0025	--	<0.0005	0.7
M-50A	Downgradient	Alluvial	7792	12/2/2015	<0.0025	0.0023	--	0.018	<0.0010	<0.00010	<0.00050	--	0.00051	--	2.0	<0.00050	0.51	<0.00020	0.0050	0.0068	--	<0.00010	<0.7
M-50A	Downgradient	Alluvial	7793	12/2/2015	<0.0025	0.0022	--	0.016	<0.0010	<0.00010	<0.00050	--	<0.00050	--	2.0	<0.00050	0.51	<0.00020	0.0049	0.0066	--	<0.00010	<0.7
M-50A	Downgradient	Alluvial	CH-M-50A-0316	3/8/2016	<0.015	<0.0049	--	0.013	<0.0010	<0.00046	<0.0087	--	<0.0013	--	2.0	<0.0044	0.47	<0.00020	0.0059 J	0.0050 J	--	<0.00026	<0.5
M-50A	Downgradient	Alluvial	CH-CCR-M50A-516	5/5/2016	0.00026	0.0025	--	0.011	<0.0010	<0.00010	<0.00050	--	0.00051	--	2.2	<0.00050	0.47	<0.00020	0.0056	0.0054	--	<0.00010	0.7
M-50A	Downgradient	Alluvial	CH-CCR-M50A-816	8/25/2016	0.00018	0.0025	--	0.0084	<0.0010	<0.00010	<0.00050	--	0.00056	--	2.3	<0.00050	0.45	<0.00020	0.0059	0.0049	--	<0.00010	<0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-916	9/23/2016	<0.00050	0.0024	--	0.0093	<0.0010	<0.00010	0.0024	--	0.00084	--	2.1	0.00012	0.50	<0.00020	0.0075	0.0046	--	0.00013	1.1
M-50A	Downgradient	Alluvial	CH-CCR-M50A-217	2/21/2017	<0.0010	0.0026	--	0.014	<0.0010	<0.00010	0.022	--	0.00090	--	2.1	<0.00050	0.50	<0.00020	0.0091	0.0043	--	<0.00010	<0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-41317	4/13/2017	<0.0010	0.0030	--	0.010	<0.0010	<0.00010	0.015	--	0.00093	--	2.0	<0.00050	0.46	<0.00020	0.0083	0.0040	--	<0.00010	<0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-42617	4/26/2017	<0.0010	0.0024	--	0.0084	<0.0010	<0.00010	0.0066	--	0.00069	--	2.0	<0.00050	0.48	<0.00020	0.0067	0.0042	--	<0.00010	<0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-51817	5/18/2017	<0.0010	0.0023	--	0.0081	<0.0010	<0.00010	0.0049	--	0.00056	--	2.2	<0.00050	0.48	<0.00020	0.0059	0.0037	--	<0.00010	0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-52417	5/24/2017	<0.0010	0.0026	--	0.0085	<0.0010	<0.00010	0.0037	--	0.00067	--	2.3	<0.00050	0.49	<0.00020	0.0061	0.0044	--	<0.00010	0.8
M-50A	Downgradient	Alluvial	CH-CCR-M50A-63017	6/30/2017	<0.0010	0.0025	--	0.0084	<0.0010	<0.00010	0.0038	--	0.0014	--	2.4	<0.00050	0.45	<0.00020	0.028	0.0040	--	0.00011	<0.7
M-50A	Downgradient	Alluvial	CH-CCR-M50A-72717	7/27/2017	<0.0040	0.0025	--	0.0089	<0.0010	<0.00040	<0.0020	--	<0.0020	--	2.5	<0.0020	0.46	<0.00020	0.0077	0.0039	--	<0.00040	<0.7
M-50A	Downgradient	Alluvial	CH-CCR-M50A-90717	9/7/2017	<0.0040	0.0026	--	0.0091	<0.0010	<0.00040	<0.0040	--	<0.0020	--	2.2	<0.0020	0.48	<0.00020	0.0091	0.0030	--	<0.00040	<0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-120817	12/8/2017	--	--	--	--	--	--	--	--	--	--	2.2	--	--	--	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-FD01-21418	2/14/2018	<0.0020	0.0026	--	0.0095	<0.0010	<0.00020	<0.0020	--	<0.0010	--	2.4	<0.0010	0.43	<0.00020	0.0088	0.0034	--	<0.00020	0.2
M-50A	Downgradient	Alluvial	CH-CCR-M50A-21418	2/14/2018	<0.0010	0.0027	--	0.0087	<0.0010	<0.00010	0.0010	--	0.00055	--	2.6	0.0012	0.44	<0.00020	0.0085	0.0029	--	<0.00010	0.5
M-50A	Downgradient	Alluvial	CH-CCR-M-50A-52118	5/21/2018	--	0.0025	--	0.0086	--	<0.00010	0.0012	--	0.00079	--	2.4	<0.00050	0.43	--	0.0070	0.0027	--	--	0.4
M-50A	Downgradient	Alluvial	CH-CCR-M-50A-102418	10/24/2018	--	0.0028	--	0.0092	--	<0.00010	0.0046	--	0.00063	--	1.9	<0.00050	0.43	--	0.0071	0.0026	--	--	<0.6
M-50A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-21319	2/13/2019	<0.0010	0.00076	--	0.012	<0.0010	<0.00010	<0.0010	--	<0.00050	--	<0.80	<0.00050	0.29	<0.00020	0.0048	<0.00050	--	<0.00010	0.9
M-50A	Downgradient	Alluvial	CH-CCR-M50A-21319	2/13/2019	<0.0010	0.0028	--	0.0086	<0.0010	<0.00010	0.0014	--	0.00069	--	2.2	<0.00050	0.46	<0.00020	0.0070	0.0027	--	<0.00010	<0.6
M-50A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-41119	4/11/2019	--	0.0016	--	0.0094	--	<0.0001	0.0069	--	0.0041	--	3.7	<0.0005	0.73	--	0.22	0.0019	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-41119	4/11/2019	--	0.0030	--	0.0088	--	<0.0001	0.0011	--	0.00062	--	2.0	<0.0005	0.44	--	0.0071	0.0025	--	--	<0.7
M-50A	Downgradient	Alluvial	CCH-CCR-M50A-112519	11/25/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
M-50A	Downgradient	Alluvial	CH-CCR-M50A-112519	11/25/2019	--	0.0027	--	0.010	--	<0.00010	0.0071	--	0.00053	--	2.1	<0.00050	0.43	--	0.0083	0.0022	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0520	5/6/2020	--	0.0027	0.0024	0.0093	<0.001	<0.0001	0.0024	--	0.00066	<0.0005	2.3	<0.0005	0.55	--	0.0065	0.0018	--	--	<0.8
M-50A	Downgradient	Alluvial	CH-CCR-M50-1020	10/25/2020	<0.002	0.0043	0.0040	0.0096	<0.001	0.00014	0.053	--	0.0016	0.0012	2.2	<0.001	0.48	<0.0002	0.014	0.0050	--	<0.0002	<0.8
M-50A	Downgradient	Alluvial	CH-CCR-M50-0421	4/15/2021	<0.002	0.0040	0.0051	0.009	<0.001	<0.0002	0.0034	--	0.00045 J	0.00067 J	2.4	<0.001	0.44	<0.0002	0.0082	0.0032	--	<0.0002	<0.7
M-50A	Downgradient	Alluvial	CH-CCR-M50-1021	10/23/2021	0.0001 J	0.0041	0.0044	0.009	<0.001	0.000032 J	0.0036	--	0.00058	0.00077	2.3	<0.0005	0.44	<0.0002	0.009	0.0017	--	0.000094 J	<0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0422	4/28/2022	0.000065 J	0.0039	0.0038	0.0082	<0.001	0.000039 J	0.014	--	0.00067	0.00066	2.3	<0.0005	0.43	<0.0002	0.0088	0.0015	--	0.000063 J	<0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-1022	10/22/2022	<0.001	0.0035	0.0036	0.0088	<0.001	<0.0001	0.0032	--	0.00055	0.00057	2.1	<0.0005	0.39	<0.0002	0.0081	0.0016	--	<0.0001	<0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0423	04/17/2023	0.00043 J	<0.005	<0.005	0.009	<0.001	<0.001	<0.01	--	<0.005	0.00069 J	<4	<0.005	0.43	<0.0002	0.0080	<0.005	--	<0.001	<0.6
M-50A	Downgradient	Alluvial	CH-CCR-M50A-1023	10/17/2023	<0.005	0.0052	0.0052	0.0084 J	<0.001	<0.0005	<0.005	--	<0.0025	<0.0025	2.5	<0.0025	0.50	<0.0002	0.0083	<0.0025	--	<0.0005	<0.8
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0424	04/18/2024	<0.001	0.0047	0.0037	0.0087	<0.001	<0.0001	<0.001		0.00053	<0.0005	2.0	<0.0005	0.39	<0.0002	0.0089	0.0018	--	<0.0001	<0.8
M-50A	Downgradient	Alluvial	CH-CCR-M50A-1024	11/06/2024	<0.0025	0.0033	0.0031	0.0087	<0.00044	<0.0004	<0.01	--	<0.0025	<0.0005	2.1	<0.0025	0.396	<0.0002	0.0092	<0.0025	--	<0.0005	<0.7
M-51A	Downgradient	Alluvial	7880	12/2/2015	<0.0025	0.020	--	0.012	<0.0010	<0.00010	<0.010	--	<0.010	--	4.8	<0.00050	0.60	<0.00020	0.034	<0.00010	--	0.00020	<0.9

Table C-2
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																	
				Constituent:	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Selenium	Thallium	Total Radium
				Filtered:	N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				FAP GWPS	*0.006*	*0.01*	*0.01*	*2*	*0.004*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.418*	*0.002*	*0.1*	*0.05*	*0.05*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																			
M-51A	Downgradient	Alluvial	CH-M-51A-0316	3/9/2016	<0.015	**0.016 J**	--	**0.0095**	<0.0010	<0.00046	<0.022	--	<0.0031	--	**5.2**	<0.0044	**0.54**	<0.00020	**0.031**	<0.0037	--	<0.00026	<0.9
M-51A	Downgradient	Alluvial	CH-DUP02-0316	3/9/2016	<0.015	**0.018 J**	--	**0.011**	<0.0010	<0.00046	<0.022	--	<0.0031	--	**6.4**	<0.0044	**0.56**	<0.00020	**0.034**	<0.0037	--	<0.00026	<0.8
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0516	5/5/2016	<0.00010	**0.0029**	--	**0.011**	<0.0010	<0.00010	<0.0020	--	<0.0020	--	**5.5**	<0.00050	**0.57**	<0.00020	**0.029**	<0.0020	--	**0.00015**	<0.8
M-51A	Downgradient	Alluvial	CH-CCR-M51A-816	8/25/2016	**0.00015**	**0.029**	--	**0.010**	<0.0010	**0.00011**	<0.0050	--	<0.0050	--	**6.0**	<0.00050	**0.56**	<0.00020	**0.042**	<0.0050	--	**0.00027**	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-916	9/23/2016	<0.0025	**0.025**	--	**0.010**	<0.0010	<0.00050	<0.0025	--	**0.0025**	--	**5.4**	<0.00050	**0.61**	<0.00020	**0.043**	<0.0030	--	<0.00050	<0.7
M-51A	Downgradient	Alluvial	CH-CCR-M51A-217	2/21/2017	<0.0010	**0.023**	--	**0.0091**	<0.0010	<0.00010	**0.053**	--	**0.0023**	--	**4.4**	<0.00050	**0.58**	<0.00020	**0.038**	<0.0020	--	**0.00014**	**0.6**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-41317	4/13/2017	<0.0010	**0.020**	--	**0.0099**	<0.0010	<0.00010	**0.014**	--	<0.0020	--	**4.1**	<0.00050	**0.49**	<0.00020	**0.038**	<0.0020	--	**0.00014**	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-42617	4/26/2017	<0.0010	**0.024**	--	**0.0096**	<0.0010	<0.00010	**0.0081**	--	<0.0050	--	**4.6**	<0.0010	**0.57**	<0.00020	**0.036**	<0.0050	--	<0.00020	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-51817	5/18/2017	<0.0010	**0.024**	--	**0.0096**	<0.0010	<0.00010	**0.0081**	--	<0.0050	--	**5.0**	<0.00050	**0.56**	<0.00020	**0.030**	<0.0050	--	**0.00012**	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-52417	5/24/2017	<0.010	**0.028**	--	**0.012**	<0.0010	<0.0010	**0.0084**	--	<0.0050	--	**5.3**	<0.0050	**0.54**	<0.00020	**0.036**	<0.0050	--	<0.0010	**0.6**
M-51A	Downgradient	Alluvial	CH-CCR-FD02-63017	6/30/2017	<0.0010	**0.029**	--	**0.010**	<0.0010	<0.00010	**0.012**	--	<0.010	--	**5.1**	<0.00050	**0.52**	<0.00020	**0.038**	<0.010	--	**0.00019**	<0.7
M-51A	Downgradient	Alluvial	CH-CCR-M51A-63017	6/30/2017	<0.0010	**0.029**	--	**0.010**	<0.0010	<0.00010	<0.010	--	<0.010	--	**4.9**	<0.00050	**0.54**	<0.00020	**0.038**	<0.010	--	**0.00021**	<0.7
M-51A	Downgradient	Alluvial	CH-CCR-M51A-72717	7/27/2017	<0.0020	**0.026**	--	**0.0098**	<0.0010	<0.00020	**0.070**	--	<0.0050	--	**6.0**	<0.0010	**0.54**	<0.00020	**0.054**	<0.0050	--	**0.00021**	<0.7
M-51A	Downgradient	Alluvial	CH-CCR-M51A-90717	9/7/2017	<0.0040	**0.035**	--	**0.0097**	<0.0010	<0.00040	**0.036**	--	<0.0050	--	**5.7**	<0.0020	**0.55**	<0.00020	**0.054**	<0.0050	--	<0.00040	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-120817	12/8/2017	--	--	--	--	--	--	--	--	--	--	**5.1**	--	--	--	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-21418	2/14/2018	<0.0020	**0.015**	--	**0.0089**	<0.0010	<0.00020	**0.0034**	--	**0.0010**	--	**5.4**	<0.0010	**0.49**	<0.00020	**0.046**	<0.00050	--	<0.00020	**0.2**
M-51A	Downgradient	Alluvial	CH-CCR-M-51A-52118	5/21/2018	--	**0.022**	--	**0.010**	--	<0.00020	**0.040**	--	**0.0018**	--	**5.7**	<0.0010	**0.48**	--	**0.057**	<0.0010	--	--	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M-51A-102418	10/24/2018	--	**0.032**	--	**0.0074**	--	**0.00010**	**0.021**	--	<0.0050	--	**5.0**	<0.00050	**0.46**	--	**0.09**	<0.0050	--	--	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-21319	2/13/2019	<0.0010	**0.025**	--	**0.0070**	<0.0010	<0.00010	**0.013**	--	<0.0020	--	**4.5**	<0.00050	**0.49**	<0.00020	**0.082**	<0.0020	--	**0.00013**	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-41119	4/10/2019	--	**0.032**	--	**0.0091**	--	<0.0002	**0.016**	--	<0.005	--	**5.4**	<0.0005	**0.45**	--	**0.09**	<0.005	--	--	<0.7
M-51A	Downgradient	Alluvial	CCH-CCR-M51A-112519	11/25/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
M-51A	Downgradient	Alluvial	CH-CCR-M51A-112519	11/25/2019	--	**0.018**	--	**0.0086**	--	<0.00010	<0.0010	--	**0.00076**	--	**4.8**	<0.00050	**0.45**	--	**0.11**	<0.00050	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0520	5/6/2020	--	**0.015**	**0.015**	**0.0091**	<0.001	<0.0001	**0.0026**	--	**0.0013**	**0.00078**	**5.6**	<0.0005	**0.65**	--	**0.090**	<0.0005	--	--	<0.8
M-51A	Downgradient	Alluvial	CH-CCR-M51-1020	10/25/2020	<0.002	**0.028**	**0.027**	**0.0085**	<0.001	**0.00017**	**0.0060**	--	**0.0015**	**0.0012**	**5.9**	**0.00053**	**0.47**	<0.0002	**0.12**	<0.002	--	**0.00019**	<0.8
M-51A	Downgradient	Alluvial	*DUP* CH-CCR-FD05-1020	10/25/2020	<0.002	**0.027**	**0.025**	**0.0086**	<0.001	**0.00013**	**0.0073**	--	**0.0012**	**0.0011**	**6.0**	<0.001	**0.47**	<0.0002	**0.12**	<0.001	--	**0.00019**	**0.4**
M-51A	Downgradient	Alluvial	CH-CCR-M51-0421	4/15/2021	<0.002	**0.023**	**0.024**	**0.010**	<0.001	<0.0002	**0.0075**	--	<0.001	**0.00014 J**	**5.7**	<0.001	**0.46**	<0.0002	**0.11**	<0.001	--	<0.0002	<0.7
M-51A	Downgradient	Alluvial	CH-CCR-M51-1021	10/23/2021	**0.0001 J**	**0.023**	**0.022**	**0.0081**	<0.001	**0.00014**	<0.004	--	**0.0015 J**	**0.0012**	**5.7**	<0.0005	**0.45**	<0.0002	**0.14**	<0.002	--	**0.00021**	**0.7**
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0422	4/28/2022	**0.000053 J**	**0.027**	**0.021**	**0.0097**	<0.001	**0.000039 J**	**0.015**	--	**0.0022**	**0.0014**	**5.6**	<0.0005	**0.43**	<0.0002	**0.11**	<0.001	--	**0.00011**	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-1022	10/22/2022	<0.001	**0.036**	**0.034**	**0.0076**	<0.001	<0.0001	**0.010**	--	<0.005	<0.005	**5.0**	<0.0005	**0.44**	<0.0002	**0.16**	<0.005	--	**0.00015**	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0423	04/17/2023	<0.01	**0.018**	**0.023**	**0.0076**	<0.001	<0.001	<0.02	--	**0.0022 J**	**0.0021 J**	**5.8**	<0.005	**0.43**	<0.0002	**0.22**	**0.0067 J**	--	<0.001	<0.6
M-51A	Downgradient	Alluvial	CH-CCR-M51A-1023	10/17/2023	<0.005	**0.032**	**0.031**	**0.0077 J**	<0.001	<0.0005	<0.01	--	<0.005	<0.005	**5.6**	<0.0025	**0.54**	<0.0002	**0.16**	<0.005	--	<0.0005	<0.8
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0424	04/18/2024	<0.001	**0.027**	**0.026**	**0.0072**	<0.001	0.00011	<0.005		**0.0034**	**0.0033**	**2.2**	<0.0005	**0.39**	<0.0002	**0.13**	<0.0025	--	0.00017	<0.8
M-51A	Downgradient	Alluvial	CH-CCR-M51A-1024	11/06/2024	<0.0025	**0.0281**	**0.018**	**0.0083**	<0.00044	<0.0004	<0.01	--	**0.0038**	**0.0024**	**4.89**	<0.0025	**0.427**	<0.0002	**0.0966**	<0.0025	--	<0.0005	<0.7
MW-65A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-12518	12/5/2018	<0.0010	**0.0013 J**	--	**0.015 J**	--	<0.00010	**0.0016 J**	--	**0.0038 J**	--	**3.6 J, UJ**	<0.00050	**0.76**	<0.00020	**0.17**	**0.0020 J**	--	<0.00010	**0.9**
MW-65A	Downgradient	Alluvial	CH-CCR-MW65A-2518	12/5/2018	<0.0010	**0.0025**	--	**0.040**	--	**0.00013**	**0.0035**	--	**0.0047**	--	**1.9 J, UJ**	**0.0010**	**0.54**	<0.00020	**0.059**	**0.0021**	--	**0.00011**	**0.9**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-21419	2/14/2019	<0.0010	**0.0017**	--	**0.015**	<0.0010	<0.00010	**0.0028**	--	**0.0033**	--	**1.7**	<0.00050	**0.58**	<0.00020	**0.059**	**0.0022**	--	<0.00010	<0.6
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-41119	4/11/2019	--	**0.0018**	--	**0.016**	--	**0.00011**	**0.010**	--	**0.0036**	--	**1.9**	<0.0005	**0.52**	--	**0.067**	**0.0024**	--	--	--
MW-65A	Downgradient	Alluvial	CCH-CCR-M65A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-112619	11/26/2019	--	<0.0020	--	**0.017**	--	**0.00014**	**0.015**	--	**0.0032**	--	**1.7**	<0.00050	**0.52**	--	**0.080**	<0.0020	--	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65-0520	5/5/2020	--	**0.0016**	**0.0017**	**0.015**	<0.001	**0.00010**	**0.0052**	--	**0.0033**	**0.0026**	**1.8**	<0.0005	**0.67**	--	**0.065**	**0.0017**	--	--	<0.8
MW-65A	Downgradient	Alluvial	CH-CCR-M65-1020	10/25/2020	<0.002	**0.0064**	**0.0049**	**0.024**	<0.001	<0.0002	**0.019**	--	**0.0039**	**0.0032**	**2.6**	<0.001	**0.57**	<0.0002	**0.22**	**0.0049**	--	<0.0002	<0.8
MW-65A	Downgradient	Alluvial	CH-CCR-M65-0421	4/14/2021	<0.002	**0.0038**	**0.0047**	**0.017**	<0.001	<0.0002	**0.016**	--	**0.0032**	**0.0030**	**2.4**	<0.001	**0.54**	<0.0002	**0.076**	**0.0016**	--	<0.0002	<0.7
MW-65A	Downgradient	Alluvial	CH-CCR-M65-1021	10/22/2021	**0.000085 J**	<0.0024	**0.0026**	**0.022**	<0.001	**0.000083 J**	**0.0041**	--	**0.0025**	**0.0023**	**2.4**	**0.00037 J**	**0.59**	<0.0002	**0.12**	**0.00081**	--	**0.000021 J**	**1.3**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-0422	4/26/2022	**0.000049 J**	**0.0039**	**0.0040**	**0.012**	<0.001	**0.000046 J**	**0.0035**	--	**0.0025**	**0.0024**	**1.7**	<0.0005	**0.50**	<0.0002	**0.091**	**0.001**	--	**0.000018 J**	<0.6
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-1022	10/21/2022	<0.001	**0.017**	**0.013**	**0.021**	<0.001	<0.0001	**0.0061**	--	**0.0076**	**0.0070**	**2.3**	<0.0005	**0.51**	<0.0002	**0.12**	**0.0021**	--	<0.0001	<0.6
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-0423	04/15/2023	<0.01	<0.005	<0.005	**0.014**	<0.001	<0.001	<0.01	--	**0.0026 J**	**0.0025 J**	<4	<0.005	**0.58**	<0.0002	**0.11**	**0.0067**	--	**0.00014 J**	**1.3**
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-1023	10/16/2023	<0.005	**0.0040**	**0.0038**	**0.021 J**	<0.001	<0.0005	<0.005	--	<0.0025	<0.0025	**3.0**	<0.0025	**0.73**	<0.0002	**0.18**	<0.0025	--	<0.0005	<0.8
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-0424	04/24/2024	<0.001 UJ	**0.0046**	**0.0035**	**0.015 J**	**0.0058**/<0.0004	<0.0001 UJ	**0.0052**		**0.0034**	**0.0023**	**2.1**	<0.0005 UJ	**0.49**	<0.0002	**0.12**	**0.0016**	--	<0.0001 UJ	**1.4**
MW-65A	Downgradient	Alluvial	CH-CCR-MW65A-1024	11/12/2024	<0.0025	**0.0033**	<0.0025	**0.0205**	<0.00044	<0.0004	<0.01	--	<0.0025	<0.0025	**1.48**	<0.0025	**0.43**	<0.0002	**0.0969**	<0.0025	--	<0.0005	<0.8
MW-66A	Downgradient	Alluvial	CH-CCR-MW66A-2518	12/5/2018	<0.0010	**0.0034**	--	**0.095**	--	**0.00029**	**0.0098**	--	**0.0026**	--	**0.93 J, UJ**	**0.0040**	**0.51**	<0.00020	**0.016**	**0.031**	--	**0.00015**	<0.6
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-21419	2/14/2019	<0.0010	**0.0021**	--	**0.016**	<0.0010	**0.00027**	<0.0010	--	**0.0013**	--	**1.1**	<0.00050	**0.55**	<0.00020	**0.014**	**0.027**	--	**0.00012**	<0.6
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-41119	4/11/2019	--	**0.0025**	--	**0.016**	--	**0.00028**	**0.21**	--	**0.0017**	--	**1.4**	<0.0005	**0.50**	--	**0.039**	**0.027**	--	--	--
MW-66A	Downgradient	Alluvial	*DUP* CCH-CCR-FD01-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
MW-66A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-112619	11/26/2019	--	<0.0020	--	**0.016 J**	--	**0.00028**	**0.0026 J**	--	<0.0020	--	**1.1**	<0.00050	**0.48**	--	**0.015**	**0.026 J**	--	--	--
MW-66A	Downgradient	Alluvial	CCH-CCR-M66A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-112619	11/26/2019	--	**0.0039**	--	**0.022 J**	--	**0.00038**	**0.016 J**	--	<0.0020	--	**1.1**	**0.00061**	**0.48**	--	**0.016**	**0.060 J**	--	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66-0520	5/5/2020	--	**0.0017**	**0.0017**	**0.015**	<0.001	**0.00027**	**0.016**	--	**0.0014**	**0.0010**	**1.1**	<0.0005	**0.68**	--	**0.014**	**0.027**	--	--	<0.8
MW-66A	Downgradient	Alluvial	CH-CCR-M66-1020	10/25/2020	<0.002	**0.0019 J**	**0.0051 J**	**0.013**	<0.001	**0.00048**	**0.024**	--	**0.0018**	**0.0018**	**1.4**	<0.001	**0.49**	<0.0002	**0.017**	**0.024**	--	**0.00013**	<0.8
MW-66A	Downgradient	Alluvial	CH-CCR-M66-0421	4/15/2021	<0.002	**0.0030**	**0.0040**	**0.023**	<0.001	<0.0002	**0.027**	--	**0.0017**	**0.0014**	**1.6**	<0.001	**0.54**	<0.0002	**0.017**	**0.017**	--	<0.0002	<0.7
MW-66A	Downgradient	Alluvial	CH-CCR-M66-1021	10/24/2021	**0.000094 J**	<0.00097	**0.0012**	**0.018**	<0.001	**0.0003**	**0.012**	--	**0.0015**	**0.0012**	**1.3**	**0.00029 J**	**0.51**	<0.0002	**0.016**	**0.014**	--	**0.00013**	<0.6
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-0422	4/27/2022	**0.000057 J**	**0.0022**	**0.0012**	**0.014**	<0.001	**0.00024**	**0.016 J**	--	**0.0012**	**0.0011**	**1.4**	<0.0005	**0.53**	<0.0002	**0.015**	**0.0092**	--	**0.00012**	<0.6
MW-66A	Downgradient	Alluvial	*DUP* CH-CCR-FD06-0422	4/27/2022	**0.000060 J**	**0.0026**	**0.0013**	**0.015**	<0.001	**0.00022**	**0.010 J**	--	**0.0012**	**0.0012**	**1.4**	<0.0005	**0.52**	<0.0002	**0.015**	**0.0092**	--	**0.00012**	**0.7**
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-1022	10/21/2022	<0.001	**0.0016**	**0.00097**	**0.021**	<0.001	**0.00019**	**0.056**	--	**0.0018**	**0.0010**	**1.2**	<0.0005	**0.45**	<0.0002	**0.021**	**0.0087**	--	**0.00011**	<0.6
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-0423	04/15/2023	<0.01	<0.005	<0.005	**0.022**	<0.001	**0.00024 J**	**0.017**	--	**0.0015 J**	**0.0011 J**	<4	<0.005	**0.58**	<0.0002	**0.017**	**0.011**	--	**0.00018 J**	<0.6
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-1023	10/16/2023	<0.005	**0.0048**	**0.0027**	**0.019 J**	<0.001	<0.0005	**0.020**	--	<0.0025	<0.0025	**1.4**	<0.0025	**0.5**	<0.0002	**0.015**	**0.0046**	--	<0.0005	<0.8
MW-66A	Downgradient	Alluvial	CH-CCR-MW66A-0424	04/17/2024	<0.001	**0.0052**	**0.0018**	**0.024**	<0.001	0.00015	**0.020**		**0.0019**	**0.001**	**0.57**	**0.00084**	**0.46**	<0.0002	**0.017**	**0.0087**	--	**0.00011**	<0.8
MW-66A	Downgradient	Alluvial	CH-CCR-MW66A-1024	11/04/2024	<0.0025	<0.0025	**0.00053**	**0.0167**	<0.00044	<0.0004	**0.013**	--	<0.0025	**0.00086**	**1.26 J**	<0.0025	**0.462**	<0.0002	**0.0166**	**0.0062**	--	<0.0005	**0.9**
MW-67A	Downgradient	Alluvial	CH-CCR-MW67A-2518	12/5/2018	<0.0010	**0.018**	--	**0.058**	--	<0.00010	**0.0082**	--	**0.0058**	--	**1.0 J, UJ**	**0.0019**	<0.20	<0.00020	**0.0061**	**0.0011**	--	<0.00010	<0.6
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-21419	2/14/2019	<0.0010	**0.016**	--	**0.022**	<0.0010	<0.00010	**0.0012**	--	**0.0037**	--	<0.80	<0.00050	<0.20	<0.00020	**0.0050**	**0.00066**	--	<0.00010	**1.4**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-41119	4/11/2019	--	**0.016**	--	**0.023**	--	<0.0001	<0.001	--	**0.0041**	--	<0.80	<0.0005	<0.20	--	**0.0052**	**0.00075**	--	--	--

Table C-2
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																		
				Constituent:	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Selenium	Thallium	Total Radium
				Filtered:	N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				FAP GWPS	*0.006*	*0.01*	*0.01*	*2*	*0.004*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.418*	*0.002*	*0.1*	*0.05*	*0.05*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																			
MW-67A	Downgradient	Alluvial	CCH-CCR-M67A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-112619	11/26/2019	--	**0.015**	--	**0.026**	--	<0.00010	<0.0040	--	**0.0042**	--	<0.80	<0.00050	<0.20	--	**0.0052**	<0.0020	--	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67-0520	5/5/2020	--	**0.017**	**0.015**	**0.028**	<0.001	<0.0001	<0.002	--	**0.0045**	**0.0038**	**0.95**	<0.0005	**0.25**	--	**0.0043**	<0.001	--	--	<0.8
MW-67A	Downgradient	Alluvial	CH-CCR-M67-1020	10/25/2020	<0.002	**0.018**	**0.020**	**0.024**	<0.001	<0.0002	<0.002	--	**0.0040**	**0.0059**	**0.47**	<0.001	**0.18**	<0.0002	**0.0047**	<0.001	--	<0.0002	<0.8
MW-67A	Downgradient	Alluvial	CH-CCR-M67-0421	4/14/2021	<0.002	**0.018**	**0.021**	**0.026**	<0.001	<0.0002	<0.002	--	**0.0040**	**0.0043**	**0.61 J**	<0.001	**0.18**	<0.0002	**0.0050**	**0.001**	--	<0.0002	<0.7
MW-67A	Downgradient	Alluvial	CH-CCR-M67-1021	10/22/2021	**0.000051 J**	**0.015**	**0.018**	**0.025**	<0.001	<0.0001	**0.00051 J**	--	**0.0038**	**0.0042**	**0.90**	<0.0005	**0.17**	<0.0002	**0.0051**	**0.00043 J**	--	**0.000036 J**	<0.6
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-0422	4/27/2022	<0.001	**0.0055**	**0.0040**	**0.023**	<0.001	<0.0001	**0.00043 J**	--	**0.0054**	**0.0053**	**0.83**	<0.0005	**0.16**	<0.0002	**0.002**	**0.00043 J**	--	**0.000065 J**	**1.0**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-1022	10/21/2022	<0.001	**0.0028**	**0.0031**	**0.022**	<0.001	<0.0001	<0.001	--	**0.0052**	**0.0051**	<0.8	<0.0005	**0.15**	<0.0002	**0.0017**	<0.0005	--	<0.0001	<0.6
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-0423	04/15/2023	<0.01	<0.005	<0.005	**0.025**	<0.001	<0.001	<0.01	--	**0.0055**	**0.0049 J**	<4	<0.005	**0.16**	<0.0002	<0.005	<0.005	--	**0.00016 J**	<0.6
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-1023	10/16/2023	<0.005	**0.0053**	**0.0042**	**0.034 J**	<0.001	<0.0005	<0.005	--	**0.0057**	**0.0048**	**0.8**	<0.0025	**0.2**	<0.0002	<0.0025	<0.0025	--	<0.0005	**0.8**
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-0424	04/29/2024	<0.001	**0.0051**	**0.0026**	**0.021**	<0.001	<0.0001	**0.0013**	--	**0.0054**	**0.0049**	**0.64**	<0.0005	**0.12**	<0.0002	**0.0019**	<0.005	--	<0.0001	<0.8
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-1024	11/12/2024	<0.0025	**0.0046**	<0.0025	**0.0215**	<0.00044	<0.0004	<0.01	--	**0.0043**	**0.0035**	**0.706 J**	<0.0025	**0.12**	<0.0002	<0.0025	<0.0025	--	<0.0005	**1.1**
W-123	Downgradient	Moenkopi-Moqui	CH-W-123-0316	3/8/2016	<0.015	<0.0049	--	**0.011**	<0.0010	<0.00046	<0.0087	--	**0.0025 J**	--	**3.6**	<0.0044	**0.58**	<0.00020	**0.34**	**0.0023 J**	--	**0.00030 J**	<0.4
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-0516	5/6/2016	**0.00026**	**0.0021**	--	**0.012**	<0.0010	<0.00010	**0.0010**	--	**0.0019**	--	**3.6**	<0.00050	**0.60**	<0.00020	**0.33**	**0.0024**	--	<0.00010	<0.8
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-816	8/25/2016	**0.00055**	**0.0025**	--	**0.0097**	<0.0010	<0.00010	**0.0018**	--	**0.0020**	--	**4.1**	<0.00050	**0.62**	<0.00020	**0.36**	**0.0032**	--	<0.00010	**0.5**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-916	9/22/2016	<0.0010	**0.0019**	--	**0.0096**	<0.0010	<0.00020	**0.041**	--	**0.0020**	--	**3.7**	<0.00020	**0.64**	<0.00020	**0.34**	**0.0033**	--	<0.00020	**0.6**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-217	2/20/2017	<0.0010	**0.0017**	--	**0.0094**	<0.0010	<0.00010	**0.13**	--	**0.0014**	--	<8.0	<0.00050	**0.66**	<0.00020	**0.34**	**0.0031**	--	<0.00010	<0.6
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-41317	4/13/2017	<0.0010	**0.0020**	--	**0.010**	<0.0010	<0.00010	**0.045**	--	**0.0014**	--	**4.0**	<0.00050	**0.59**	<0.00020	**0.36**	**0.0034**	--	<0.00010	<0.6
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-42617	4/26/2017	<0.0010	**0.0017**	--	**0.010**	<0.0010	<0.00010	**0.016**	--	**0.0014**	--	**3.5**	<0.0010	**0.64**	<0.00020	**0.35**	**0.0033**	--	<0.00020	<0.6
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-52217	5/22/2017	<0.0010	**0.0014**	--	**0.0095**	<0.0010	<0.00010	**0.0099**	--	**0.0012**	--	**3.8**	<0.00050	**0.65**	<0.00020	**0.30**	**0.0032**	--	<0.00010	<0.6
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-52417	5/24/2017	<0.0010	**0.0020**	--	**0.010**	<0.0010	<0.00010	**0.018**	--	**0.0015**	--	**3.8**	<0.0020	**0.68**	<0.00020	**0.35**	**0.0038**	--	<0.00040	<0.6
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-63017	6/30/2017	<0.0010	**0.0020**	--	**0.011**	<0.0010	<0.00010	**0.0080**	--	**0.0013**	--	**3.8**	<0.00050	**0.63**	<0.00020	**0.33**	**0.0046**	--	<0.00010	<0.7
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-72717	7/27/2017	<0.0020	**0.0015**	--	**0.010**	<0.0010	<0.00020	**0.046**	--	**0.0017**	--	**3.7**	<0.0010	**0.66**	<0.00020	**0.33**	**0.0043**	--	<0.00020	<0.6
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-90717	9/7/2017	<0.0040	<0.0020	--	**0.011**	<0.0010	<0.00040	**0.097**	--	**0.0022**	--	**3.7**	<0.0020	**0.70**	<0.00020	**0.36**	**0.0045**	--	<0.00040	<0.7
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-120817	12/8/2017	--	--	--	--	--	--	--	--	--	--	**4.1**	--	--	--	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-21418	2/14/2018	<0.0020	**0.0018**	--	**0.010**	<0.0010	<0.00020	**0.12**	--	**0.0021**	--	**4.2**	<0.0010	**0.63**	<0.00020	**0.37**	**0.0035**	--	<0.00020	**0.5**
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W-123-52118	5/21/2018	--	**0.0030**	--	**0.011**	--	<0.00020	**0.084**	--	<0.0020	--	**4.3**	<0.0010	**0.63**	--	**0.38**	**0.0058**	--	--	**0.8**
W-123	Downgradient	Moenkopi-Moqui	*DUP* CH-CCR-FD-02-102418	10/24/2018	--	**0.0027**	--	**0.0092**	--	<0.00010	**0.045**	--	**0.0015**	--	**3.9**	<0.00050	**0.65**	--	**0.36**	**0.0056**	--	--	<0.7
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W-123-102418	10/24/2018	--	**0.0026**	--	**0.0092**	--	<0.00010	**0.043**	--	**0.0016**	--	**4.0**	<0.00050	**0.65**	--	**0.37**	**0.0059**	--	--	<0.6
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-21319	2/13/2019	<0.0010	**0.0024**	--	**0.010**	<0.0010	<0.00010	**0.12**	--	**0.0018**	--	**3.7**	<0.00050	**0.75**	<0.00020	**0.37**	**0.0063**	--	<0.00010	<0.6
W-123	Downgradient	Moenkopi-Moqui	*DUP* CH-CCR-FD02-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-w123-41119	4/11/2019	--	**0.0019**	--	**0.011**	--	<0.0001	**0.097**	--	**0.0019**	--	**3.9**	<0.0005	**0.67**	--	**0.41**	**0.0053**	--	--	<0.7
W-123	Downgradient	Moenkopi-Moqui	*DUP* CH-CCR-FD02-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	**2.3**	--	--	--	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CCH-CCR-W123-112519	11/25/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-112519	11/25/2019	--	**0.0023**	--	**0.0097**	--	<0.0010	**0.14**	--	**0.0026**	--	**3.6**	<0.00050	**0.66**	--	**0.41**	**0.0052**	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-0520	5/6/2020	--	**0.0012**	**0.0015**	**0.011**	<0.001	<0.0001	**0.076**	--	**0.0030**	**0.0023**	**4.8**	<0.0005	**0.83**	--	**0.30**	**0.0027**	--	--	<0.8
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-1020	10/26/2020	**0.0042**	**0.0056**	**0.0038**	**0.021**	<0.001	**0.00024**	**0.037**	--	**0.0043**	**0.0021**	**3.6**	**0.0015**	**0.62**	<0.0002	**0.66**	**0.0081**	--	**0.00039**	<0.8
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-0421	4/15/2021	**0.0012 J**	**0.0046**	**0.0045**	**0.013**	<0.001	<0.0002	**0.23**	--	**0.0018**	**0.0013**	**4.7**	**0.0053**	**0.61**	<0.0002	**0.34**	**0.0029**	--	<0.0002	<0.7
W-123R	Downgradient	Moenkopi-Moqui	CH-DEV-W123R-0621	6/5/2021	<0.001	**0.0048**	--	**0.016**	<0.001	<0.0001	**0.00097 J**	--	**0.0036**	--	**5.0**	**0.0012**	**0.48**	--	**0.35**	**0.0015**	--	**0.00024**	--
W-123R	Downgradient	Moenkopi-Moqui	CH-ABREP-W123R-0621	6/15/2021	--	**0.0048**	--	--	--	--	--	--	**0.0037**	--	**4.1**	--	**0.52**	--	**0.24**	--	--	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0821	8/3/2021	<0.001	**0.0058**	**0.0061**	**0.012**	<0.001	**0.000077 J**	**0.001**	--	**0.0036**	**0.0034**	**5.2**	<0.0005	**0.52**	<0.0002	**0.24**	**0.0010**	--	**0.00022**	<0.7
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1021	10/23/2021	**0.0002 J**	**0.0036**	**0.0047**	**0.011**	<0.001	**0.000057 J**	**0.0015**	--	**0.0035**	**0.0039**	**5.6**	**0.00028 J**	**0.51**	<0.0002	**0.22**	**0.00071**	--	**0.00026**	<0.6
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0422	4/28/2022	**0.000080 J**	**0.0058**	**0.0048**	**0.0097**	<0.001	<0.0001	**0.0011**	--	**0.0037**	**0.0041**	**5.9**	<0.0005	**0.52**	<0.0002	**0.21**	**0.0014**	--	**0.00023**	<0.6
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-SS10-0422	4/28/2022	<0.02	**0.00415 J**	**0.00336 J**	**0.00979 J**	<0.0025	<0.0025	<0.02	--	**0.00711**	**0.00745**	**5.28 / 6 J**	<0.005	**0.459**	<0.001	**0.209**	<0.0025	--	<0.005	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1022	10/22/2022	<0.001	**0.0039**	**0.0043**	**0.010**	<0.001	<0.0001	<0.001	--	**0.0034**	**0.0034**	**5.9**	<0.0005	**0.47**	<0.0002	**0.27**	<0.0005	--	**0.00022**	<0.6
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0423	04/17/2023	<0.01	<0.005	<0.005	**0.012**	<0.001	<0.001	<0.01	--	**0.0031 J**	**0.004 J**	**5.9**	<0.005	**0.43**	<0.0002	**0.27**	<0.005	--	**0.00024 J**	**0.6**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1023	10/11/2023	<0.01	**0.011**	**0.011**	**0.011**	<0.001	<0.001	<0.01	--	<0.005	<0.005	**5.4**	<0.005	**0.5**	<0.0002	**0.15**	<0.005	--	<0.001	**1.0**
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0424	04/18/2024	<0.005	**0.006**	**0.006**	**0.011**	<0.001	<0.0005	0.0022		**0.0043**	**0.0044**	**3.4**	<0.0025	**0.58**	<0.0002	**0.12**	**0.0033**	--	<0.0005	<0.8
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1024	11/06/2024	<0.0025	**0.0053**	**0.0047**	**0.0122**	<0.00044	<0.0004	<0.01	--	**0.0058**	**0.0050**	**6.75**	<0.0025	**0.553**	<0.0002	**0.0607**	<0.0025	--	<0.0005	**1.9**
EW-01	Extraction Well	Alluvial	CH-CCR-EW01-1023	10/23/2023	<0.005	**0.0051**	**0.0042**	**0.012**	<0.001	<0.0005	<0.005	--	<0.0025	0.0038	<0.4	<0.0025	**0.55**	<0.0002	**0.22**	<0.0025	--	<0.0005	<0.7
EW-01	Extraction Well	Alluvial	CH-CCR-EW01-0424	05/02/2024	<0.001	**0.0021 J**	**0.0020 J**	**0.017**	<0.001	<0.0001	<0.001	--	**0.0017**	**0.0017**	**0.84**	<0.0005	**0.34**	<0.0002	**0.0085**	**0.0023 J**	**0.0021**	<0.0001	<0.8
EW-01	Extraction Well	Alluvial	CH-CCR-EW01-1024	11/13/2024	<0.0025	<0.0025	<0.0025	**0.0122**	<0.00044	<0.0004	<0.01	--	<0.0025	<0.0025	**2.19**	<0.0025	**0.41**	<0.0002	**0.0175**	**0.0089**	--	<0.0005	**0.6**
EW-02	Extraction Well	Alluvial	EW02-018521	1/8/2021	--	**0.0034**	--	--	--	--	--	--	**0.0011**	--	**1.6**	--	**0.62**	--	**0.038**	--	--	--	--
EW-02	Extraction Well	Alluvial	CH-CCR-EW02-1023	10/23/2023	<0.005	**0.0049**	**0.0045**	**0.011**	<0.001	<0.0005	<0.005	--	<0.0025	<0.0025	**3.3**	<0.0025	**0.64**	<0.0002	**0.25**	<0.0025	--	<0.0005	<0.7
EW-02	Extraction Well	Alluvial	CH-CCR-EW02-0424	05/02/2024	<0.001	**0.0024**	**0.0022 J**	**0.0098**	<0.001	0.00027	<0.001	--	**0.00091**	**0.00092**	**1.10**	<0.0005	**0.48**	<0.0002	**0.045**	**0.013**	--	0.00011	<0.8
EW-02	Extraction Well	Alluvial	CH-CCR-EW02-1024	11/13/2024	<0.0025	**0.0088**	<0.0025	**0.011**	<0.00044	**0.00045**	<0.01	--	<0.0025	**0.0027**	**1.40**	<0.0025	**0.65**	<0.0002	**0.115**	**0.0076**	--	<0.0005	**0.5**
EW-03	Extraction Well	Alluvial	CH-CCR-EW03-1023	10/23/2023	<0.005	**0.005**	**0.0042**	**0.0096**	<0.001	<0.0005	<0.005	--	<0.0025	<0.0025	**1.7**	<0.0025	**0.65**	<0.0002	**0.16**	**0.008**	--	<0.0005	<0.7
EW-03	Extraction Well	Alluvial	CH-CCR-EW03-0424	05/02/2024	<0.001	**0.026**	**0.0023 J**	**0.011**	<0.001	0.00036	**0.022**	--	**0.0021**	**0.0011**	**1.10**	<0.0005	**0.45**	<0.0002	**0.24**	**0.017**	--	0.00013	<0.8
EW-03	Extraction Well	Alluvial	CH-CCR-EW03-1024	11/13/2024	<0.0025	<0.0025	<0.0025	**0.0085**	<0.00044	<0.0004	<0.01	--	**0.0026**	**0.0026**	**0.90**	<0.0025	**0.48**	<0.0002	**0.394**	**0.0039**	--	<0.0005	**0.7**
EW-04	Extraction Well	Alluvial	EW04-010521	1/5/2021	--	**0.0043**	--	--	--	--	--	--	**0.0024**	--	**3.9**	--	**0.43**	--	**0.48**	--	--	--	--
EW-04	Extraction Well	Alluvial	CH-CCR-EW04-1023	10/23/2023	<0.005	**0.0070**	**0.0073**	**0.011**	<0.001	<0.0005	<0.005	--	**0.0032**	**0.0035**	**4.3**	<0.0025	**0.44**	<0.0002	**0.39**	<0.0025	--	<0.0005	<0.7
EW-04	Extraction Well	Alluvial	CH-CCR-EW04-0424	05/02/2024	<0.001	**0.0057**	**0.0058**	**0.011**	<0.001	<0.0001	<0.001	--	**0.0035**	**0.0036**	**3.40**	<0.0005	**0.34**	<0.0002	**0.37**	**0.0020 J**	--	0.00023	**0.5**
EW-04	Extraction Well	Alluvial	CH-CCR-EW04-1024	11/13/2024	<0.0025	**0.004**	**0.0034**	**0.0104**	<0.00044	<0.0004	<0.01	--	**0.0037**	**0.0041**	**2.97**	<0.0025	**0.39**	<0.0002	**0.264**	<0.0025	--	**0.00069**	**2.9**
GSX-1R	Extraction Well	Alluvial	CH-CRT-GSX1R-0621	6/28/2021	--	--	--	--	--	--	--	--	--	--	**2.5**	--	--	--	--	--	--	--	--
GSX-1R	Extraction Well	Alluvial	CH-CRT2-GSX1R-0621	6/29/2021	--	--	--	--	--	--	--	--	--	--	**2.5**	--	--	--	--	--	--	--	--
GSX-1R	Extraction Well	Alluvial	CH-CRT3-GSX1R-0621	6/29/2021	--	--	--	--	--	--	--	--	--	--	**2.5**	--	--	--	--	--	--	--	--
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-0821	8/3/2021	<0.001	**0.0057**	--	**0.012**	<0.001	**0.00011**	**0.00060 J**	--	**0.0020**	--	**2.8**	<0.0005	**0.52**	<0.0002	**0.61**	**0.0015**	--	<0.0001	<0.6
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-1023	10/23/2023	<0.005	**0.0045**	**0.0044**	**0.0099**	<0.001	<0.0005	<0.005	--	**0.0032**	**0.0031**	**2.6**	<0.0025	**0.52**	<0.0002	**0.5**	<0.0025	--	<0.0005	<0.7
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-0424	05/02/2024	<0.001	**0.0043 J**	**0.0036 J**	**0.01**	<0.001	0.00015	<0.001	--	**0.0033**	**0.0033**	**2.00**	<0.0005	**0.42**	<0.0002	**0.49**	**0.0048**	--	0.00016	<0.8
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-1024	11/13/2024	<0.0025	<0.0025	<0.0025	**0.009**	<0.00044	<0.0004	<0.01	--	**0.0029**	**0.0030**	**1.65**	<0.0025	**0.46**	<0.0002	**0.431**	**0.0039**	--	<0.0005	**0.4**
GSX-3	Extraction Well	Alluvial	CH-CCR-GSX3-1024	11/13/2024	<0.0025	**0.0167**	**0.0054**	**0.005**	<0.00044	<0.0004	<0.01	--	<0.0025	<0.0025	**5.44**	<0.0025	**0.58**	<0.0002	**0.0486**	<0.0025	--	<0.0005	--

Table C-2
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																	
				Constituent:	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Selenium	Thallium	Total Radium
				Filtered:	N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				FAP GWPS	*0.006*	*0.01*	*0.01*	*2*	*0.004*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.418*	*0.002*	*0.1*	*0.05*	*0.05*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																			
GSX-4	Extraction Well	Alluvial	CH-CCR-GSX4-1024	11/13/2024	<0.0025	0.0178	0.0046	0.008	<0.00044	0.00042	0.0989	--	<0.0025	<0.0025	2.46	<0.0025	0.41	<0.0002	0.441	<0.0025	--	<0.0005	--
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1216	12/21/2016	<0.0010	0.0046	--	0.025	<0.0010	<0.00010	0.00080	--	0.00069	--	<0.80	<0.00050	0.20	<0.00020	0.0027	<0.00050	--	<0.00010	--
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1216	12/21/2016	--	--	--	--	--	--	--	--	--	--	<0.80	--	--	--	--	--	--	--	--
M-43A	Supplementary	Alluvial	CH-CCR-M43-0421	4/14/2021	0.00013 J	0.0031	0.0036	0.018	<0.001	<0.0002	<0.002	--	0.00039 J	0.00036 J	0.49 J	<0.001	0.25	<0.0002	0.0031	0.0011	--	<0.0002	0.6
M-43A	Supplementary	Alluvial	CH-CCR-M43-1021	10/22/2021	0.00026 J	0.0027	0.0024	0.017	<0.001	<0.0001	0.0041	--	0.00039 J	0.00050	0.2 J	<0.0005	0.20	<0.0002	0.0032	0.00064	--	0.00011	<0.6
M-43A	Supplementary	Alluvial	CH-CCR-MW43A-0422	4/26/2022	<0.001	0.0022	0.0022	0.017	<0.001	<0.0001	0.0018	--	0.00023 J	0.00019 J	0.30 J	<0.0005	0.17	<0.0002	0.0031	0.00055	--	<0.0001	0.5
M-43A	Supplementary	Alluvial	CH-CCR-M43A-0423	04/15/2023	<0.01	<0.005	<0.005	0.017	<0.001	<0.001	<0.01	--	<0.005	0.00064 J	<4	<0.005	0.21	<0.0002	0.0036 J	<0.005	--	0.00013 J	<0.6
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1023	10/16/2023	<0.005	0.0035	0.0033	0.018 J	<0.001	<0.0005	<0.005	--	<0.0025	<0.0025	<0.8	<0.0025	0.15	<0.0002	0.003	<0.0025	--	<0.0005	1.3
M-43A	Supplementary	Alluvial	CH-CCR-M43A-0424	04/18/2024	<0.001	0.0024	0.0021	0.016	<0.001	<0.0001	<0.001	--	<0.0005	<0.0005	<0.4	<0.0005	0.16	<0.0002	0.0045	0.00091	--	<0.0001	<0.8
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1024	10/31/2024	<0.0025	<0.0025	<0.0025	0.0178	<0.00044	<0.0004	<0.01	--	<0.0025	<0.0025	1.0 J	<0.0025	0.105	<0.0002	0.0142	<0.0025	--	<0.0005	1.6
M-44D	Supplementary	Coconino	7795	12/2/2015	<0.0025	0.0019	--	0.022	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.70	<0.00050	<0.20	<0.00020	0.0024	<0.00010	--	<0.00010	3.8
M-44D	Supplementary	Coconino	CH-M-44D-0316	3/10/2016	<0.015	<0.0049	--	0.020	<0.0010	<0.00046	<0.0087	--	<0.0013	--	0.72	<0.0044	<0.20	<0.00020	<0.0040	<0.0015	--	<0.00026	3.1
M-44D	Supplementary	Coconino	CH-CCR-M-44D-516	5/22/2016	<0.00010	0.0015	--	0.019	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.78	<0.00050	<0.20	<0.00020	0.0022	<0.00050	--	<0.00010	3.9
M-44D	Supplementary	Coconino	CH-CCR-M44D-816	8/26/2016	0.00013	0.0015	--	0.019	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.77	<0.00050	<0.20	<0.00020	0.0022	<0.00050	--	<0.00010	4.6
M-44D	Supplementary	Coconino	CH-CCR-M44D-916	9/23/2016	<0.00050	0.0014	--	0.019	<0.0010	<0.00010	0.00061	--	<0.00020	--	0.76	<0.00010	<0.20	<0.00020	0.0026	<0.00060	--	<0.00010	4.4
M-44D	Supplementary	Coconino	CH-CCR-M44D-217	2/20/2017	<0.0010	0.0012	--	0.018	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.68	<0.00050	<0.20	<0.00020	0.0021	<0.00050	--	<0.00010	3.6
M-44D	Supplementary	Coconino	CH-CCR-M44D-41317	4/13/2017	<0.0010	0.0014	--	0.019	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.72	<0.00050	<0.20	<0.00020	0.0026	<0.00050	--	<0.00010	4.2
M-44D	Supplementary	Coconino	CH-CCR-FD01-42417	4/24/2017	<0.0010	0.0015	--	0.020	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.73	<0.00050	<0.20	<0.00020	0.0023	<0.00050	--	<0.00010	2.0
M-44D	Supplementary	Coconino	CH-CCR-M44D-42417	4/24/2017	<0.0010	0.0015	--	0.019	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.73	<0.00050	<0.20	<0.00020	0.0023	<0.00050	--	<0.00010	2.4
M-44D	Supplementary	Coconino	CH-CCR-M44D-52217	5/22/2017	<0.0010	0.0013	--	0.017	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.75	<0.00050	<0.20	<0.00020	0.0019	<0.00050	--	<0.00010	3.6
M-44D	Supplementary	Coconino	CH-CCR-M44D-52517	5/25/2017	<0.0010	0.0015	--	0.02	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.76	<0.00050	<0.20	<0.00020	0.0022	<0.00050	--	<0.00010	4.7
M-44D	Supplementary	Coconino	CH-CCR-M44D-62917	6/29/2017	<0.0010	0.0015	--	0.019	<0.0010	<0.00010	<0.00050	--	<0.00050	--	0.79	<0.00050	<0.20	<0.00020	0.0023	<0.00050	--	<0.00010	4.6
M-44D	Supplementary	Coconino	CH-CCR-M44D-72917	7/29/2017	<0.0040	<0.0020	--	0.020	<0.0010	<0.00040	<0.0020	--	<0.0020	--	0.78	<0.0020	<0.20	<0.00020	0.0023	<0.0020	--	<0.00040	3.2
M-44D	Supplementary	Coconino	CH-CCR-M44D-90517	9/5/2017	<0.0010	0.0015	--	0.020	<0.0010	<0.00010	<0.0010	--	<0.00050	--	0.77	<0.00050	<0.20	<0.00020	0.0021	<0.00050	--	<0.00010	4.3
M-44D	Supplementary	Coconino	CH-CCR-M44D-0520	5/7/2020	--	--	--	--	--	--	--	--	--	--	0.81	--	--	--	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-1020	10/24/2020	<0.004	0.0057	--	0.021	<0.001	<0.0004	<0.004	--	<0.002	--	0.73	0.0013	0.035	<0.0002	0.0018	<0.002	--	<0.0004	4.1
M-44D	Supplementary	Coconino	CH-CCR-M44D-0421	4/16/2021	<0.002	0.0014	--	0.021	<0.001 U	<0.0002	<0.002	--	<0.001	--	0.77 J	<0.001	0.040	<0.0002	0.0029	<0.001	--	<0.0002	2.8
M-44D	Supplementary	Coconino	*DUP* CH-CCR-FD05-0421	4/16/2021	<0.002	0.0023	--	0.020 J	<0.001	<0.0002	<0.002	--	<0.001	--	0.75 J	<0.001	0.039	<0.0002	0.0027	0.00081 J	--	<0.0002	3.1
M-44D	Supplementary	Coconino	CH-CCR-M44D-1021	10/23/2021	0.000071 J	<0.0016 UJ	--	0.020	<0.001	0.000043 J	<0.001	--	<0.0005	--	0.76 J	<0.0005	0.041	<0.0002	0.0021 J	0.00019 J	--	0.00044	5.0
M-44D	Supplementary	Coconino	CH-CCR-FD06-1021	10/23/2021	0.000069 J	0.00093 J	--	0.021	<0.001	<0.0001	0.00044 J	--	<0.0005	--	0.66 J	<0.0005	0.039	<0.0002	0.0032 J	<0.0005	--	<0.0001	4.3
M-44D	Supplementary	Coconino	CH-CCR-M44D-0422	4/29/2022	<0.001	0.00088	--	0.019	<0.001	<0.0001	<0.001	--	<0.0005	--	0.74 J	<0.0005	0.052	<0.0002	0.0018	<0.0005	--	<0.0001	3.3
M-44D	Supplementary	Coconino	CH-CCR-M44D-1022	10/19/2022	<0.001	0.00091	--	0.019	<0.001	<0.0001	<0.001	--	<0.0005	--	0.91	<0.0005	0.040	<0.0002	0.0016	<0.0005	--	<0.0001	1.8 J
M-44D	Supplementary	Coconino	*DUP* CH-CCR-FD05-1022	10/19/2022	<0.001	0.0010	--	0.020	<0.001	<0.0001	<0.001	--	<0.0005	--	0.89	<0.0005	0.043	<0.0002	0.0017	<0.0005	--	<0.0001	3.0 J
M-44D	Supplementary	Coconino	CH-CCR-M44D-0423	04/13/2023	<0.01	<0.005	--	0.021	<0.001	<0.001	<0.01	--	<0.005	--	<0.8	<0.005	0.050	<0.0002	<0.005	<0.005	--	<0.001	2.7
M-44D	Supplementary	Coconino	CH-CCR-M44D-1023	11/21/2023	<0.001	0.0019	--	0.029	<0.001	<0.0001	<0.001	--	<0.0005	--	<0.8	<0.0005	<0.05	<0.0002	0.0022	<0.01	--	<0.0001	4.6
M-44D	Supplementary	Coconino	CH-CCR-FD05-1023	11/21/2023	<0.001	0.0018	--	0.027	<0.001	<0.0001	<0.001	--	<0.0005	--	<0.8	<0.0005	<0.05	<0.0002	0.0021	<0.01	--	<0.0001	4.1
M-44D	Supplementary	Coconino	CH-CCR-M44D-0424	05/02/2024	<0.001	0.0011 J	--	0.02	<0.001	<0.0001	<0.001	--	<0.0005	--	0.62	<0.0005	0.045	<0.0002	0.0017	<0.005	--	<0.0001	2.9 J
M-44D	Supplementary	Coconino	*DUP* CH-CCR-FD06-0424	05/02/2024	<0.001	0.0011 J	--	0.02	<0.001	<0.0001	<0.001	--	<0.0005	--	0.69	<0.0005	0.025	<0.0002	0.0017	<0.005	--	<0.0001	1.9 J
M-44D	Supplementary	Coconino	CH-CCR-M44D-1024	11/11/2024	<0.0025	<0.0025	--	0.0193	<0.00044	<0.0004	<0.01	--	<0.0025	--	0.717	<0.0025	0.0391	<0.0002	<0.0025	<0.0025	--	<0.0005	3.5
M-45A	Supplementary	Alluvial	CH-M-45A-0913	9/17/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.001	--
M-45A	Supplementary	Alluvial	CH-M-45A-0913_C29829-8	9/17/2013	<0.0060	<0.010	--	<0.20	<0.0050	<0.0020	<0.010	--	--	--	1.0	<0.010	--	<0.00020	--	<0.010	--	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-1113	11/21/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.001	--
M-45A	Supplementary	Alluvial	CH-M-45A-1113_C31100-6	11/21/2013	<0.0060	<0.010	--	<0.20	<0.0050	<0.0020	<0.010	--	--	--	0.67	<0.010	--	<0.00020	--	<0.010	--	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-0314	3/26/2014	<0.006	<0.01	--	<0.2	<0.015	<0.002	<0.01	--	--	--	0.83	<0.01	--	<0.0002	--	<0.01	--	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-0614	6/10/2014	<0.006	<0.01	--	<0.2	<0.005	<0.002	<0.01	--	--	--	0.90	<0.01	--	<0.0002	--	<0.01	--	<0.0005	--
M-45A	Supplementary	Alluvial	CH-M-45A-0615	6/16/2015	<0.006	<0.01	--	<0.2	<0.005	<0.002	<0.01	--	--	--	0.90	<0.01	--	<0.0002	--	<0.01	--	<0.01	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1216	12/21/2016	<0.0010	0.00066	--	0.017	<0.0010	<0.00010	0.0013	--	0.0014	--	0.76	<0.00050	<0.20	<0.00020	0.0030	<0.00050	--	<0.00010	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1216	12/21/2016	--	--	--	--	--	--	--	--	--	--	0.78	--	--	--	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45-0421	4/14/2021	<0.002	0.0036	--	0.014	<0.001	<0.0002	<0.002	--	0.00095 J	--	0.65 J	<0.001	0.20	<0.0002	0.016	0.00082 J	--	<0.0002	<0.7
M-45A	Supplementary	Alluvial	CH-CCR-M45-1021	10/22/2021	0.000049 J	0.0032	--	0.017	<0.001	<0.0001	<0.001	--	0.0011	--	0.57 J	<0.0005	0.20	<0.0002	0.0039	0.00052	--	0.000057 J	0.7
M-45A	Supplementary	Alluvial	CH-CCR-M45A-0422	4/26/2022	<0.001	0.0047	--	0.013	<0.001	<0.0001	<0.001	--	0.0006	--	0.64 J	<0.0005	0.20	<0.0002	0.0032	0.00029 J	--	<0.0001	0.7
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1022	10/21/2022	<0.001	0.0033	--	0.012	0.0088	<0.0001	<0.001	--	0.00069	--	<0.8	<0.0005	0.050	<0.0002	0.0028	<0.0005	--	<0.0001	<0.6
M-45A	Supplementary	Alluvial	CH-CCR-M45A-0423	04/15/2023	<0.01	<0.005	--	0.013	<0.001	<0.001	<0.01	--	0.00081 J	--	<4	<0.005	0.22	<0.0002	0.0028 J	0.0054	--	0.00015 J	0.9
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1023	10/17/2023	<0.005	0.0045	--	0.013 J	<0.001	<0.0005	<0.005	--	<0.0025	--	<0.8	<0.0025	0.27	<0.0002	0.0029	<0.0025	--	<0.0005	0.6
M-45A	Supplementary	Alluvial	CH-CCR-M45A-0424	04/18/2024	<0.001	0.0037	--	0.012	<0.001	<0.0001	<0.001	--	0.00090	--	0.50	<0.0005	0.18	<0.0002	0.0030	0.00088	--	<0.0001	<0.8
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1024	11/04/2024	<0.0025	<0.0025	--	0.0143	<0.00044	<0.0004	<0.01	--	<0.0025	--	0.53	<0.0025	0.194	<0.0002	0.0031	<0.0025	--	<0.0005	1.4
M-46A	Supplementary	Alluvial	CCH-CCR-M46A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5
M-46A	Supplementary	Alluvial	CH-CCR-M46A-112619	11/26/2019	--	0.0042	--	0.037	--	<0.00010	<0.0040	--	<0.0020	--	<0.80	0.00052	0.23	--	0.026	<0.0020	--	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46-0520	5/5/2020	--	0.0013	0.0011	0.031	<0.001	<0.0001	0.0011	--	0.00081	0.00079	<0.8 UJ	<0.0005	0.35	--	0.0068	<0.001	--	--	<0.8
M-46A	Supplementary	Alluvial	CH-CCR-M46-1020	10/25/2020	<0.002	0.0038	0.0039	0.028	<0.001	<0.0002	0.0046	--	0.0015	0.0016	0.51	<0.001	0.25	<0.0002	0.0093	0.0047	--	<0.0002 U	<0.8
M-46A	Supplementary	Alluvial	CH-CCR-M46-0421	4/14/2021	<0.002	0.0059	0.0046	0.029	<0.001	<0.0002	0.053	--	0.0010	0.0013	0.68 J	<0.001	0.26	<0.0002	0.012	0.0012	--	<0.0002	<0.7
M-46A	Supplementary	Alluvial	CH-CCR-M46-1021	10/22/2021	0.0001 J	0.0042	0.0027	0.027	<0.001	0.000051 J	0.033	--	0.0010	0.0015	0.97	<0.0005	0.24	<0.0002	0.010	0.00062	--	0.000052 J	0.8
M-46A	Supplementary	Alluvial	CH-CCR-M46A-0422	4/27/2022	0.000061 J	0.0033	0.0037	0.026	<0.001	0.000062 J	0.0033	--	0.00069	0.00064	0.74 J	<0.0005	0.25	<0.0002	0.0066	0.0012	--	0.000015 J	1.4
M-46A	Supplementary	Alluvial	CH-CCR-M46A-1022	10/21/2022	<0.001	0.00096	0.0012	0.024	0.0012	<0.0001	0.003	--	0.0008	0.0007	<0.8	<0.0005	0.22	<0.0002	0.0065	0.0013	--	<0.0001	<0.6
M-46A	Supplementary	Alluvial	CH-CCR-M46A-0423	04/15/2023	<0.01	0.0031 J	<0.005	0.022	<0.001	<0.001	<0.01	--	0.0011 J	0.002 J	<4	<0.005	0.28	<0.0002	0.0098	0.0013 J	--	0.00013 J	0.9
M-46A	Supplementary	Alluvial	CH-CCR-M46A-1023	10/16/2023	<0.005	0.0063	0.0036	0.02 J	<0.001	<0.0005	0.0085	--	<0.0025	<0.0025	1.0	<0.0025	0.35	<0.0002	0.0091	<0.0025	--	<0.0005	2.1
M-46A	Supplementary	Alluvial	CH-CCR-M46A-0424	04/17/2024	<0.001	0.0085	0.0067	0.018	<0.001	<0.0001	0.0018	--	0.0014	0.0013	0.42	<0.0005	0.23	<0.0002	0.010	0.0012	--	<0.0001	<0.8
M-46A	Supplementary	Alluvial	CH-CCR-M46A-1024	11/12/2024	<0.0025	0.0074	0.0049	0.0174	<0.00044	<0.0004	<0.01	--	<0.0025	<0.0025	0.82	<0.0025	0.253	<0.0002	0.009	<0.0025	--	<0.0005	1.0
M-63A	Supplementary	Alluvial	7871	11/30/2015	<0.0025	0.00086	--	0.039	<0.0010	<0.00010	<0.00050	--	0.00099	--	<0.40	<0.00050	<0.20	<0.00020	0.011	0.0063	--	0.00019	<0.7
M-63A	Supplementary	Alluvial	CH-M-63A-0316	3/10/2016	<0.050	<0.010	--	0.030	<0.0010	<0.0020	<0.010	--	<0.010	--	<0.40	<0.010	<0.20	<0.00020	<0.010	<0.010	--	<0.0020	<0.6
M-63A	Supplementary	Alluvial	CH-M-63A-0316	3/10/2016	--	--	--	--	--	--	--	--	--	--	<0.40	--	--	--	--	--	--	--	--

Table C-2
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																		
				Constituent:	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Selenium	Thallium	Total Radium
				Filtered:	N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				FAP GWPS	*0.006*	*0.01*	*0.01*	*2*	*0.004*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.418*	*0.002*	*0.1*	*0.05*	*0.05*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																			
M-63A	Supplementary	Alluvial	CH-CCR-M63A-050516	5/5/2016	**0.00015**	**0.00083**	--	**0.028**	<0.0010	<0.00010	<0.00050	--	**0.0018**	--	<0.40	<0.00050	<0.20	<0.00020	**0.0021**	<0.00050	--	<0.00010	<0.8
M-63A	Supplementary	Alluvial	CH-CCR-M100-816	8/24/2016	**0.00053**	**0.00063**	--	**0.029**	<0.0010	<0.00010	<0.00050	--	<0.00050	--	**0.46**	<0.00050	<0.20	<0.00020	**0.0039**	**0.0050**	--	<0.00010	**1.8**
M-63A	Supplementary	Alluvial	CH-CCR-M100-816	8/24/2016	--	--	--	--	--	--	--	--	--	--	<0.40	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-816	8/24/2016	**0.00037**	**0.00057**	--	**0.031**	<0.0010	<0.00010	<0.00050	--	<0.00050	--	<0.40	<0.00050	<0.20	<0.00020	**0.0044**	**0.0060**	--	<0.00010	<0.6
M-63A	Supplementary	Alluvial	CH-CCR-M63A-816	8/24/2016	--	--	--	--	--	--	--	--	--	--	<0.40	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-916	9/21/2016	<0.00050	**0.00057**	--	**0.025**	<0.0010	<0.00010	<0.00050	--	**0.00022**	--	<0.40	<0.00010	<0.20	<0.00020	**0.0039**	**0.0029**	--	<0.00010	**0.8**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-916	9/21/2016	--	--	--	--	--	--	--	--	--	--	<0.40	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-APP-M63A-1016	10/4/2016	--	--	--	--	<0.0010	--	<0.00050	--	--	--	<0.40	--	--	--	--	--	--	<0.00010	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-217	2/20/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.6
M-63A	Supplementary	Alluvial	CH-CCR-M63A-41317	4/13/2017	<0.0010	**0.00079**	--	**0.025**	<0.0010	<0.00010	<0.00050	--	**0.0017**	--	<0.40	<0.00050	<0.20	<0.00020	**0.0022**	<0.00050	--	<0.00010	<0.6
M-63A	Supplementary	Alluvial	CH-CCR-M63A-41317	4/13/2017	--	--	--	--	--	--	--	--	--	--	<0.40	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-42617	4/26/2017	<0.0010	**0.00073**	--	**0.026**	<0.0010	<0.00010	**0.0018**	--	**0.0018**	--	<0.40	<0.00050	<0.20	<0.00020	**0.0022**	<0.00050	--	<0.00010	**0.8**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-42617	4/26/2017	--	--	--	--	--	--	--	--	--	--	<0.40	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-APP-M63A-52217	5/22/2017	--	--	--	--	<0.0010	<0.00010	<0.00050	--	--	--	<0.40	<0.00050	--	--	--	--	--	<0.00010	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52217	5/22/2017	<0.0010	**0.00062**	--	**0.024**	<0.0010	<0.00010	<0.00050	--	**0.0012**	--	<0.40	<0.00050	<0.20	<0.00020	**0.0019**	**0.00054**	--	<0.00010	<0.6
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52217	5/22/2017	--	--	--	--	--	--	--	--	--	--	<0.40	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52417	5/24/2017	<0.0010	**0.00087**	--	**0.027**	<0.0010	<0.00010	**0.00074**	--	**0.0015**	--	<0.40	<0.00050	<0.20	<0.00020	**0.0022**	<0.00050	--	<0.00010	<0.6
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52417	5/24/2017	--	--	--	--	--	--	--	--	--	--	<0.40	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-63017	6/30/2017	<0.0010	**0.0010**	--	**0.031**	<0.0010	<0.00010	**0.0015**	--	**0.0010**	--	<0.40	<0.00050	<0.20	<0.00020	**0.0022**	**0.0017**	--	<0.00010	<0.7
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD02-72817	7/28/2017	<0.0020	<0.0010	--	**0.029**	<0.0010	<0.00020	**0.0010**	--	<0.0010	--	<0.80	<0.0010	<0.20	<0.00020	**0.0021**	**0.0036**	--	<0.00020	**1.0**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-72817	7/28/2017	<0.0020	<0.0010	--	**0.029**	<0.0010	<0.00020	**0.0013**	--	<0.0010	--	<0.40	<0.0010	<0.20	<0.00020	**0.0021**	**0.0037**	--	<0.00020	<0.7
M-63A	Supplementary	Alluvial	CH-CCR-M63A-90717	9/7/2017	<0.0040	<0.0020	--	**0.032**	<0.0010	<0.00040	<0.0040	--	<0.0020	--	<0.40	<0.0020	<0.20	<0.00020	**0.0022**	**0.0022**	--	<0.00040	<0.7
M-63A	Supplementary	Alluvial	CH-APP-M63A-62419	6/24/2019	--	--	--	--	<0.0010	--	**0.0024**	--	--	--	<0.40	--	--	--	--	--	--	<0.00010	--
M-63A	Supplementary	Alluvial	CH-CCR-M63-0421	4/15/2021	**0.00020 J**	**0.0028**	--	**0.031**	<0.001	<0.0002	<0.002	--	**0.0017**	--	**0.27 J**	<0.001	**0.054**	<0.0002	**0.0027**	**0.00036 J**	--	<0.0002	<0.7
M-63A	Supplementary	Alluvial	CH-CCR-M63-1021	10/24/2021	**0.000081 J**	**0.0031**	--	**0.029**	<0.001	**0.000034 J**	<0.001	--	**0.0011**	--	**0.25 J**	<0.0005	**0.067**	<0.0002	**0.0025**	**0.00011 J**	--	**0.000045 J**	**0.7**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-0422	4/27/2022	**0.000080 J**	**0.0011**	--	**0.025**	<0.001	<0.0001	<0.001	--	**0.00073**	--	**0.22 J**	<0.0005	**0.091**	<0.0002	**0.0027**	**0.0021**	--	**0.00006 J**	<0.6
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD05-0422	4/27/2022	**0.000075 J**	**0.0012**	--	**0.024**	<0.001	<0.0001	<0.001	--	**0.00073**	--	**0.22 J**	<0.0005	**0.087**	<0.0002	**0.0025**	**0.0022**	--	**0.000058 J**	**0.7**
M-63A	Supplementary	Alluvial	CH-CCR-SS09-0422	4/27/2022	<0.002	**0.00081 J**	--	**0.0256**	<0.00025	<0.00025	<0.002	--	**0.00161**	--	0.25 J/<2.5	<0.0005	**0.0805**	<0.001	**0.0025**	**0.00212**	--	<0.0005	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-1022	10/21/2022	<0.001	**0.0018**	--	**0.027**	<0.001	<0.0001	<0.001	--	**0.0011**	--	<0.8	<0.0005	**0.083**	<0.0002	**0.0024**	<0.0005	--	<0.0001	**0.8**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-0423	04/15/2023	<0.01	<0.005	--	**0.030**	<0.001	<0.001	<0.01	--	**0.0017 J**	--	<4	<0.005	**0.082**	<0.0002	**0.0033 J**	<0.005	--	**0.00024 J**	<0.6
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD05-0423	04/15/2023	<0.01	<0.005	--	**0.030**	<0.001	<0.001	<0.01	--	**0.0015 J**	--	<4	<0.005	**0.094**	<0.0002	**0.0032 J**	<0.005	--	**0.00017 J**	**1.0**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-1023	10/11/2023	<0.01	**0.0093**	--	**0.028**	<0.001	<0.001	<0.01	--	<0.005	--	<0.4	<0.005	**0.067**	<0.0002	<0.005	<0.005	--	<0.001	**0.9**
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD06-1023	10/11/2023	<0.01	**0.0089**	--	**0.028**	<0.001	<0.001	<0.01	--	<0.005	--	<0.4	<0.005	**0.066**	<0.0002	<0.005	<0.005	--	<0.001	**1.1**
M-63A	Supplementary	Alluvial	CH-CCR-M63A-0424	04/17/2024	<0.001	**0.0023**	--	**0.027**	<0.001	<0.0001	<0.001		**0.0013**	--	<0.4	<0.0005	**0.072**	<0.0002	**0.0034**	**0.00091**	--	<0.0001	<0.8
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD05-0424	04/17/2024	<0.001	**0.0024**	--	**0.028**	<0.001	<0.0001	<0.001		**0.0013**	--	<0.4	<0.0005	**0.072**	<0.0002	**0.0035**	**0.00065**	--	<0.0001	<0.8
M-63A	Supplementary	Alluvial	CH-CCR-M63A-1024	10/21/2024	<0.0025	<0.0025	--	**0.0292**	<0.00044	<0.0004	<0.01	--	<0.0025	--	**0.191 J**	<0.0025	**0.088**	<0.0002	**0.0043**	<0.0025	--	<0.0005	**0.5**
M-63A	Supplementary	Alluvial	CH-CCR-FD05-1024	10/21/2024	<0.0025	0.0027	--	**0.0271**	<0.00044	<0.0004	<0.01	--	<0.0025	--	**0.225 J**	<0.0025	**0.0811**	<0.0002	**0.0034**	<0.0025	--	<0.0005	**1.9**
W-125	Supplementary	Coconino	7794	12/2/2015	<0.0025	**0.018**	--	**0.024**	<0.0010	<0.00010	**0.0014**	--	**0.0036**	--	**0.57**	**0.00066**	<0.20	<0.00020	**0.0018**	**0.00013**	--	<0.00010	**5.4**
W-125	Supplementary	Coconino	CH-W-125-0316	3/9/2016	<0.015	<0.0049	--	**0.018**	<0.0010	<0.00046	<0.0087	--	<0.0013	--	**0.48**	<0.0044	<0.20	<0.00020	<0.0040	<0.0015	--	**0.00040 J**	**2.0**
W-125	Supplementary	Coconino	CH-CCR-W125-516	5/22/2016	**0.00031**	**0.0087**	--	**0.019**	<0.0010	<0.00010	<0.00050	--	**0.0016**	--	**0.53**	<0.00050	<0.20	<0.00020	**0.0017**	<0.00050	--	<0.00010	**2.6**
W-125	Supplementary	Coconino	CH-CCR-W125-816	8/26/2016	**0.00018**	**0.0081**	--	**0.028**	<0.0010	<0.00010	**0.00060**	--	**0.0043**	--	**0.55**	<0.00050	<0.20	<0.00020	**0.037**	<0.00050	--	<0.00010	**5.5**
W-125	Supplementary	Coconino	CH-CCR-W125-916	9/23/2016	<0.00050	**0.0046**	--	**0.024**	<0.0010	<0.00010	<0.00050	--	**0.0022**	--	**0.57**	<0.00010	<0.20	<0.00020	**0.014**	**0.00069**	--	<0.00010	**1.2**
W-125	Supplementary	Coconino	CH-CCR-W125-217	2/20/2017	<0.0010	**0.0043**	--	**0.020**	<0.0010	<0.00010	<0.00050	--	**0.0012**	--	<4.0	<0.00050	<0.20	<0.00020	**0.0024**	<0.00050	--	<0.00010	**3.0**
W-125	Supplementary	Coconino	CH-CCR-W125-41317	4/13/2017	<0.0010	**0.0039**	--	**0.020**	<0.0010	<0.00010	<0.00050	--	**0.00097**	--	**0.52**	<0.00050	<0.20	<0.00020	**0.0025**	<0.00050	--	<0.00010	**2.5**
W-125	Supplementary	Coconino	CH-CCR-W125-42617	4/26/2017	<0.0010	**0.0035**	--	**0.020**	<0.0010	<0.00010	<0.00050	--	**0.00069**	--	**0.54**	<0.00050	<0.20	<0.00020	**0.0026**	<0.00050	--	<0.00010	**3.5**
W-125	Supplementary	Coconino	CH-CCR-FD02-52217	5/22/2017	<0.0010	**0.0024**	--	**0.017**	<0.0010	<0.00010	<0.00050	--	<0.00050	--	**0.53**	<0.00050	<0.20	<0.00020	**0.0020**	<0.00050	--	<0.00010	**1.3**
W-125	Supplementary	Coconino	CH-CCR-W125-52217	5/22/2017	<0.0010	**0.0026**	--	**0.018**	<0.0010	<0.00010	<0.00050	--	<0.00050	--	**0.52**	<0.00050	<0.20	<0.00020	**0.0022**	<0.00050	--	<0.00010	**2.7**
W-125	Supplementary	Coconino	CH-CCR-W125-52417	5/24/2017	<0.0040	**0.0022**	--	**0.020**	<0.0010	<0.00040	<0.0020	--	<0.0020	--	**0.55**	<0.0020	<0.20	<0.00020	**0.0031**	<0.0020	--	<0.00040	**3.1**
W-125	Supplementary	Coconino	CH-CCR-W125-62917	6/29/2017	<0.0010	**0.0028**	--	**0.020**	<0.0010	<0.00010	<0.00050	--	**0.00063**	--	**0.56**	<0.00050	<0.20	<0.00020	**0.0024**	<0.00050	--	<0.00010	**2.6**
W-125	Supplementary	Coconino	CH-CCR-W125-72717	7/27/2017	<0.0020	**0.0030**	--	**0.021**	<0.0010	<0.00020	<0.0010	--	<0.0010	--	<0.80	<0.0010	<0.20	<0.00020	**0.0024**	<0.0010	--	<0.00020	**2.8**
W-125	Supplementary	Coconino	CH-CCR-FD02-90617	9/6/2017	<0.0040	**0.0026**	--	**0.021**	<0.0010	<0.00040	<0.0040	--	<0.0020	--	**0.54**	<0.0020	<0.20	<0.00020	**0.0026**	<0.0020	--	<0.00040	**1.2**
W-125	Supplementary	Coconino	CH-CCR-W125-90617	9/6/2017	<0.0040	**0.0027**	--	**0.020**	<0.0010	<0.00040	<0.0040	--	<0.0020	--	**0.54**	<0.0020	<0.20	<0.00020	**0.0027**	<0.0020	--	<0.00040	**2.8**
W-125	Supplementary	Coconino	CH-CCR-W125-0520	5/6/2020	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-1020	10/24/2020	<0.002	**0.0073**	--	**0.022**	<0.001	<0.0002	<0.002	--	**0.0012**	--	**0.53**	<0.001	**0.029**	<0.0002	**0.0026**	<0.001	--	<0.0002	**3.1**
W-125	Supplementary	Coconino	CH-CCR-W125-0421	4/15/2021	<0.002	**0.0043**	--	**0.022**	<0.001	<0.0002	<0.002	--	**0.00054 J**	--	**0.55 J**	<0.001	**0.029**	<0.0002	**0.0031**	**0.00019 J**	--	<0.0002	**3.8**
W-125	Supplementary	Coconino	CH-CCR-W125-1021	10/23/2021	**0.000066 J**	**0.0051 J**	--	**0.022**	<0.001	<0.0001	<0.001	--	**0.0012**	--	**0.56 J**	<0.0005	**0.026**	<0.0002	**0.0028**	**0.00011 J**	--	**0.000015 J**	**2.3 J**
W-125	Supplementary	Coconino	CH-CCR-FD05-1021	10/23/2021	**0.000096 J**	**0.0038 J**	--	**0.022**	<0.001	<0.0001	<0.001	--	**0.00072**	--	**0.53 J**	<0.0005	**0.026**	<0.0002	**0.0025**	<0.0005	--	<0.0001	**3.9 J**
W-125	Supplementary	Coconino	CH-CCR-W125-0422	4/28/2022	**0.000054 J**	**0.004**	--	**0.021**	<0.001	<0.0001	<0.001	--	**0.00068**	--	**0.57 J**	<0.0005	**0.033**	<0.0002	**0.0024**	**0.00024 J**	--	<0.0001	**3.6**
W-125	Supplementary	Coconino	CH-CCR-W125-1022	10/22/2022	<0.001	**0.0042**	--	**0.020**	<0.001	<0.0001	<0.001	--	**0.0017**	--	<0.8	<0.0005	**0.034**	<0.0002	**0.0024**	<0.0005	--	<0.0001	**3.8**
W-125	Supplementary	Coconino	CH-CCR-W125-0423_A	04/17/2023	<0.01	<0.005	--	**0.020**	<0.001	<0.001	<0.01	--	<0.005	--	<0.8	<0.005	<0.02	<0.0002	**0.0023 J**	<0.005	--	<0.001	--
W-125	Supplementary	Coconino	CH-CCR-W125-0423	04/25/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
W-125	Supplementary	Coconino	CH-CCR-W125-1023	10/17/2023	<0.005	**0.0058**	--	**0.020 J**	<0.001	<0.0005	<0.005	--	<0.0025	--	<0.8	<0.0025	**0.069**	<0.0002	<0.0025	<0.0025	--	<0.0005	**3.6**
W-125	Supplementary	Coconino	CH-CCR-W125-0424	04/18/2024	<0.001	**0.0049**	--	**0.02**	<0.001	<0.0001	<0.001		**0.0018**	--	0.51	<0.0005	**0.033**	<0.0002	**0.0031**	**0.00055**	--	<0.0001	**1.4**
W-125	Supplementary	Coconino	CH-CCR-W125-1024	11/06/2024	<0.0025	**0.0036**	--	**0.020**	<0.00044	<0.0004	<0.01	--	<0.0025	--	**0.279**	<0.0025	**0.0282**	<0.0002	<0.0025	<0.0025	--	<0.0005	**3.6**
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-010318	1/3/2018	--	--	--	--	--	--	--	--	--	--	**3.7**	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W-126-125128	12/5/2018	<0.0010	**0.0027 J**	--	**0.021 J**	--	<0.00010	**0.0026 J**	--	**0.0049 J**	--	**3.5 J, UJ**	**0.00072**	**0.78 J**	<0.00020	**0.20**	**0.0015 J**	--	**0.00015**	<0.6
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-41119	4/11/2019	--	**0.0017**	--	**0.011**	--	<0.0001	**0.0085 J**	--	**0.0042**	--	**3.7**	<0.0005	**0.73**	--	**0.22**	**0.0020**	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-51519	5/15/2019	--	--	--	--	--	--	--	--	--	--	**4.0**	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-62419	6/24/2019	--	--	--	--	--	<0.00010	**0.012**	--	--	--	**3.8**	<0.00050	--	--	--	--	--	**0.00012**	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-71119	7/11/2019	--	--	--	--	--	--	--	--	--	--	**3.7**	--	--	--	--	--	--	--	--

Table C-2
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																	
Constituent:					Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Selenium	Thallium	Total Radium
Filtered:					N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
FAP GWPS					*0.006*	*0.01*	*0.01*	*2*	*0.004*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.418*	*0.002*	*0.1*	*0.05*	*0.05*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																			
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-81919	8/19/2019	--	--	--	--	--	--	--	--	--	--	2.8	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	*DUP* CH-APP-W126FD-111419	11/14/2019	--	--	--	--	--	--	--	--	--	--	4.1	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-111419	11/14/2019	--	--	--	--	--	--	--	--	--	--	4.0	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CCH-CCR-W126-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-112619	11/26/2019	--	0.0023	--	0.010	--	<0.00040	0.019	--	0.0040	--	3.6	<0.00050	0.70	--	0.21	<0.0020	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-0520	5/5/2020	--	0.0014	0.0023	0.011	<0.001	<0.0002	0.0053	--	0.0038	0.0036	4.1	<0.0005	1.1	--	0.22	0.0015	--	--	<0.8
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-1020	10/25/2020	<0.004	0.002	0.0032	0.018 J	<0.001	<0.0004	0.011	--	0.0083 J	0.0041	4.2	<0.002	0.74	<0.0002	0.22	0.0049	--	0.00026	<0.8
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-0421	4/15/2021	<0.002	0.0038	0.0051	0.0099	<0.001	<0.0002	0.009	--	0.0040	0.0039	3.9	<0.001	0.72	<0.0002	0.25	0.0027	--	<0.0002	<0.7
W-126R	Supplementary	Moenkopi-Moqui	CH-DEV-W126R-0621	6/4/2021	<0.001	0.0023	--	0.0091	<0.001	<0.0001	0.0011	--	0.0038	--	5.0	<0.001	0.64	--	0.27	0.0018	--	<0.0002	--
W-126R	Supplementary	Moenkopi-Moqui	CH-ABREP-W126R-0621	6/15/2021	--	0.0024	--	--	--	--	--	--	0.0045	--	3.6	--	0.66	--	0.26	--	--	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0821	8/3/2021	<0.001	0.0037	0.0039	0.011	<0.001	0.000064 J	0.024	--	0.0042	0.0042	4.6	<0.0005	0.66	<0.0002	0.31	0.0015	--	<0.0001	0.4 J
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-1021	10/23/2021	0.00014 J	<0.00079	0.0025	0.0094	<0.001	0.000070 J	0.010	--	0.0040	0.0041	5.6	<0.0005	0.62	<0.0002	0.31	0.0012	--	0.00013	<0.6
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0422	4/27/2022	0.000085 J	0.0027	0.0016	0.0078	<0.001	0.000063 J	0.0079	--	0.0039	0.0044	5.6	<0.0005	0.63	<0.0002	0.25	0.0021	--	0.00013	<0.6
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-126R-1022	10/21/2022	<0.001	0.00091	0.0014	0.0082	<0.001	<0.0001	0.004	--	0.0043	0.0043	5.7	<0.0005	0.54	<0.0002	0.26	0.0021	--	0.00011	<0.6
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0423	04/15/2023	<0.01	<0.005	<0.005	0.011	<0.001	<0.001	<0.01	--	0.0048 J	0.0045 J	5.3	<0.005	0.61	<0.0002	0.33	0.016	--	0.00021 J	0.6
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W-126R-1023	10/16/2023	<0.005	0.0030	0.0029	0.0099 J	<0.001	<0.0005	<0.005	--	0.0038	0.0038	5.0	<0.0025	0.71	<0.0002	0.27	<0.0025	--	<0.0005	<0.8
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0424	04/17/2024	<0.005	0.0045	0.0044	0.01	<0.001	<0.0005	0.028	--	0.0049	0.0048	4.2	<0.0025	0.66	<0.0002	0.26	0.0048	--	<0.0005	<0.7
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-1024	10/31/2024	<0.0025	<0.0025	<0.0025	0.0091	<0.00044	<0.0004	<0.01	--	0.0045	0.0047	0.84 J	<0.0025	0.49	<0.0002	0.198	<0.0025	--	<0.0005	0.9
FAP	Supplementary	Surface Pond	CH-FAP-01052012	1/5/2012	--	--	--	--	--	0.0045	<0.010	<0.010	--	--	21	<0.015	--	--	--	--	--	<0.0010	--
FAP	Supplementary	Surface Pond	CH-FAP-1172012	11/7/2012	--	--	--	--	--	<0.0010	--	<0.010	--	--	30	<0.015	--	--	--	--	--	<0.0040	--
FAP	Supplementary	Surface Pond	CH-FAP-031313	3/13/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.001	--
FAP	Supplementary	Surface Pond	CH-FAP-031313_C26660-2	3/13/2013	--	--	--	--	--	<0.0040	--	--	--	--	15.6	<0.10	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-031313_C26660-2F	3/13/2013	--	--	--	--	--	--	--	<0.020	--	--	--	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0913	9/18/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0010	--
FAP	Supplementary	Surface Pond	CH-FAP-0913_C29829-11	9/18/2013	--	--	--	--	--	0.0021	--	--	--	--	19.7	<0.050	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0913_C29829-11F	9/18/2013	--	--	--	--	--	--	--	<0.010	--	--	--	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0514	5/22/2014	--	--	--	--	--	--	--	<0.25	--	--	--	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0514_C34218-5	5/22/2014	--	--	--	--	--	0.0365	--	--	--	--	20.3	<0.01	--	--	--	--	--	<0.005	--
FAP	Supplementary	Surface Pond	CH-FAP-1014	10/13/2014	--	--	--	--	--	<0.002	--	<0.1	--	--	37.9	<0.1	--	--	--	--	--	0.0076	--
FAP	Supplementary	Surface Pond	CH-FAP-0115	1/17/2015	--	--	--	--	--	--	--	--	--	--	40.6	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0515	5/4/2015	--	--	--	--	--	<0.002	--	<0.01	--	--	24.7	<0.1	--	--	--	--	--	<0.025	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-0615	6/15/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0014	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-070516	7/5/2016	--	--	--	--	--	--	--	--	--	--	49	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-Flyash-1016	10/12/2016	--	--	--	--	--	0.0040	--	0.02	--	--	53	0.0041	--	--	--	--	--	0.0013	--
FAP	Supplementary	Surface Pond	CH-APP-FPF-1116	11/17/2016	--	--	--	--	--	--	--	--	--	--	29	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1216	12/21/2016	0.033	0.25	--	0.067	0.0045	0.0012	0.0085	--	0.0091	--	55	0.0034	2.4	0.00073	0.43	0.038	--	0.0010	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1216	12/21/2016	--	--	--	--	--	--	--	--	--	--	50	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-CCR-M100-1216	12/21/2016	0.033	0.25	--	0.068	0.0045	0.0013	0.0091	--	0.0094	--	55	0.0036	2.4	0.00072	0.43	0.042	--	0.0010	--
FAP	Supplementary	Surface Pond	CH-CCR-M100-1216	12/21/2016	--	--	--	--	--	--	--	--	--	--	51	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-60717	6/7/2017	--	--	--	--	--	0.00069	--	0.019	--	--	53	<0.0020	--	--	--	--	--	0.0012	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-60717	6/7/2017	--	--	--	--	--	0.00071	--	--	--	--	--	<0.0020	--	--	--	--	--	0.00097	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-70217	7/2/2017	--	--	--	--	--	--	--	--	--	--	57	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-10617	10/6/2017	--	--	--	--	--	0.0014	--	--	--	--	3.9	0.0040	--	--	--	--	--	0.0011	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-10617	10/6/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FFAP-10617	10/6/2017	--	--	--	--	--	--	--	0.024	--	--	--	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-33019	3/30/2019	0.036	0.17	--	0.092	0.0057	<0.00040	0.0024	--	0.0053	--	5.1R	<0.0020	4.1	<0.00020	0.52	0.034	--	<0.00040	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-33019	3/30/2019	--	--	--	--	--	--	--	--	--	--	68 J	--	--	--	--	--	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-42919	4/29/2019	--	--	--	--	--	<0.0010	--	<0.020	--	--	69 J	<0.0050	--	--	--	--	--	<0.0010	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1021	10/31/2021	0.066	0.63	0.62	0.14	0.013 J	0.0009 J	0.0099 J	--	0.019	0.020	290	<0.005	7.9	<0.0002	0.77	0.071	--	0.00051 J	14.1
FAP	Supplementary	Surface Pond	CH-CCR-FAP-0422	4/21/2022	0.061	0.60	0.58	0.14	0.0098	0.00051 J	0.012	--	0.021	0.021	120	<0.005	9.3	<0.0002	0.74	0.064	--	0.00055 J	<0.6
FAP	Supplementary	Surface Pond	CH-CCR-SS11-0422	4/21/2022	0.0657 J	0.75	0.478	0.151 J	0.0106 J	<0.025	<0.2	--	0.0329	0.0254	69.6 J / 21.2	<0.05	12.3	<0.005	0.826	0.614 J	--	<0.05	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1022	10/26/2022	0.057	0.36	0.25	0.25	<0.01	<0.0004	0.0061	--	0.019	0.016	84	<0.0005	6.4	<0.0002	0.88	0.12	--	0.00028	1.7
FAP	Supplementary	Surface Pond	CH-CCR-FAP-0423	04/25/2023	0.052 J	0.54	0.069	0.17	<0.01	<0.02	<0.1	--	0.023	0.021	<400	<0.02	10	<0.0002	0.83	0.13	--	<0.02	<0.6
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1023	10/13/2023	0.11	0.76	0.77	0.14	0.0078	<0.002	<0.02	--	0.020	0.021	19	<0.01	16	<0.0002	1.0	0.13	--	0.0022	182
FAP	Supplementary	Surface Pond	CH-CCR-FAP-0424	05/02/2024	0.11	0.90	0.88	0.095	<0.1	<0.002	0.02	--	<0.01	<0.01	<400	<0.01	8.60	<0.0002	0.49	0.097	--	<0.002	<3.6
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1024	11/13/2024	0.114	0.75	0.475	0.127	0.0048	<0.004	<0.1	--	0.0123	0.0118	113	<0.0032	11.7	<0.002	0.666	0.259	--	<0.0013	4.6
Bud	Supplementary	Seepage	Bud Hunt	10/8/2012	--	--	--	--	<0.0050	--	<0.010	--	--	--	0.80	<0.010	--	--	--	--	--	<0.0015	--
Bud	Supplementary	Seepage	CH-BUD-0613	6/5/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.001	--
Bud	Supplementary	Seepage	CH-BUD-0613_C28117-4	6/5/2013	--	--	--	--	<0.0050	--	<0.010	--	--	--	0.44	<0.010	--	--	--	--	--	--	--
Bud	Supplementary	Seepage	CH-BUD-0614	6/11/2014	--	--	--	--	<0.005	--	<0.01	--	--	--	0.49	<0.01	--	--	--	--	--	<0.005	--
Bud	Supplementary	Seepage	CH-BUD-0615	6/17/2015	--	--	--	--	<0.005	--	<0.01	--	--	--	0.45	<0.01	--	--	--	--	--	<0.0025	--
Bud	Supplementary	Seepage	CH-APP-BudHunt-1016	10/5/2016	--	--	--	0.013	<0.00010	<0.00010	0.0016	--	--	--	0.41	0.00097	--	--	--	--	--	<0.00010	--
Bud	Supplementary	Seepage	CH-APP-BudHunt-60617	6/6/2017	--	--	--	--	<0.0010	0.00010	0.00068	--	--	--	0.41	0.00060	--	--	--	--	--	<0.00010	--
Bud	Supplementary	Seepage	CH-CCR-BudHunt-1022	10/21/2022	<0.001	0.00063	0.00087	0.012	<0.001	<0.0001	<0.001	--	<0.0005	<0.0005	<0.8	0.0024	0.027	<0.0002	0.0018	0.0020	--	<0.0001	<0.6
Bud	Supplementary	Seepage	CH-CCR-BudHunt-0423	04/19/2023	<0.01	0.0025	<0.005	0.012	<0.001	<0.001	<0.01	--	<0.005	<0.005	<0.8	<0.005	<0.02	<0.0002	<0.005	<0.005	--	<0.001	<0.6
Bud	Supplementary	Seepage	CH-CCR-BudHunt-1023	10/17/2023	<0.005	0.0026	0.0027	0.012 J	<0.001	<0.0005	<0.005	--	<0.0025	<0.0025	<0.8	<0.0025	0.058	<0.0002	<0.0025	<0.0025	--	<0.0005	<0.8
Bud	Supplementary	Seepage	CH-CCR-BudHunt-0424	04/23/2024	<0.001 UJ	0.0015	0.0014	0.012 J	<0.001/<0.0004	<0.0001 UJ	<0.001	--	<0.0005	<0.0005	0.40	0.0006 J	0.020	<0.0002	0.0019	0.002	--	<0.0001 UJ	<0.9
Bud	Supplementary	Seepage	CH-CCR-BUDHUNT-1024	10/29/2024	<0.0005	<0.0005	<0.0005	0.0109	<0.00044	<0.00008	<0.002	--	<0.0005	<0.0005	0.438 J	<0.0005	0.020	<0.0002	0.0017	0.0014	--	<0.0001	<0.7

Table C-2
Groundwater Sampling Results for the FAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																
				Constituent:	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Selenium	Thallium	Total Radium
				Filtered:	N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				FAP GWPS	*0.006*	*0.01*	*0.01*	*2*	*0.004*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.418*	*0.002*	*0.1*	*0.05*	*0.05*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																			
Geronimo C	Supplementary	Seepage	CH-CCR-GeronC-0421	4/15/2021	**0.00030 J**	**0.080**	--	**0.0066**	<0.001	<0.0002	**0.010**	--	<0.002	--	**7.2**	**0.023**	**0.86**	<0.0002	**0.039**	<0.002	--	<0.0002	<0.8
Geronimo C	Supplementary	Seepage	CH-CCR-GeronimoC-0422	4/20/2022	**0.00012 J**	**0.024**	**0.015**	**0.0049**	<0.001	<0.0001	**0.0023**	--	**0.0019**	**0.0019**	**5.2**	**0.0025**	**0.71**	<0.0002	**0.029**	<0.005	--	<0.0001	<0.6
Geronimo C	Supplementary	Seepage	CH-CCR-GeronimoC-0423	04/25/2023	<0.01	**0.019**	**0.017**	**0.0050**	<0.001	<0.002	**0.0032 J**	--	**0.0029**	**0.0025**	<40	<0.002	**0.69**	<0.0002	**0.035**	<0.01	--	<0.002	--
Geronimo C	Supplementary	Seepage	CH-CCR-GeronimoC-1023	10/23/2023	<0.01	**0.023**	**0.016**	**0.0061**	<0.001	<0.001	<0.01	--	<0.005	<0.005	**7.0**	<0.005	**0.57**	<0.0002	**0.055**	<0.005 UJ	--	<0.001	--
Geronimo C	Supplementary	Seepage	CH-CCR-Geronimo-0424	05/02/2024	<0.02	**0.045**	**0.036**	<0.01	<0.001	<0.002	**0.049**	--	<0.01	<0.01	**6.10**	<0.01	**0.39**	<0.0002	**0.032**	<0.01	--	<0.002	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronD-0421	4/15/2021	**0.00015 J**	**0.0076**	--	**0.0086**	<0.001	<0.0002	**0.0038**	--	**0.0013**	--	**7.1**	**0.019**	**0.73**	<0.0002	**0.038**	**0.00088 J**	--	<0.0002	<0.8
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-0422	4/20/2022	**0.00016 J**	**0.0091**	**0.0033**	**0.011**	<0.001	<0.0002	**0.0071**	--	**0.0027**	**0.0046**	**6.3**	**0.0013**	**0.74**	<0.0002	**0.036**	**0.00080 J**	--	<0.0001	<0.6
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-1022	10/27/2022	<0.001	**0.0044 J**	**0.0039**	**0.021**	**0.0015**	**0.00027**	**0.0078 J**	--	**0.0017 J**	**0.0015**	**1.9**	<0.0005	**0.59**	<0.0002	**0.072**	<0.002	--	**0.00014**	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-0423	04/25/2023	<0.01	**0.0073**	**0.0068**	**0.0099**	<0.001	<0.002	**0.0033 J**	--	**0.0027**	**0.0026**	**8.2**	<0.002	**0.71**	<0.0002	**0.028**	<0.01	--	<0.002	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-1023	10/23/2023	<0.005	**0.0088**	**0.0091**	**0.014**	<0.001	<0.0005	<0.005	--	<0.0025	<0.0025	**3.6**	<0.0025	**0.59**	<0.0002	**0.080**	<0.0025	--	<0.0005	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-0424	05/02/2024	<0.02	**0.044**	**0.029**	**0.014**	<0.001	<0.002	**0.12**	--	<0.01	<0.01	**5.90**	<0.01	**0.48**	<0.0002	**0.048**	<0.01	--	<0.002	--
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0421	4/15/2021	<0.002	**0.0029**	--	**0.010 J**	<0.001	<0.0002	**0.0012 J**	--	**0.0042**	--	**3.9**	<0.001	**0.49**	<0.0002	**0.44**	**0.0029**	--	<0.0002	<0.8
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0422	4/20/2022	**0.00006 J**	**0.0032**	**0.022**	**0.0098**	<0.001	<0.0001	**0.0010 J**	--	**0.0046**	**0.00066**	**3.6**	<0.0005	**0.48**	<0.0002	**0.43**	**0.0023**	--	**0.00014**	<0.6
Hunt	Supplementary	Seepage	CH-CCR-HuntB-1022	10/27/2022	<0.001	**0.0013**	**0.00098**	**0.011**	<0.001	**0.00012**	**0.0085**	--	**0.0052**	**0.0050**	**3.3**	<0.0005	**0.45**	<0.0002	**0.41**	<0.002	--	**0.00049**	**1.3**
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0423	04/25/2023	<0.01	<0.002	**0.0013 J**	**0.0095**	<0.001	<0.002	<0.01	--	**0.0050**	**0.0053**	**4.2**	<0.002	**0.47**	<0.0002	**0.88**	<0.01	--	<0.002	**1.3**
Hunt	Supplementary	Seepage	CH-CCR-HuntB-1023	10/23/2023	<0.005	**0.0045**	**0.0044**	**0.011**	<0.001	<0.0005	<0.005	--	**0.0052**	**0.0052**	**4.2**	<0.0025	**0.42**	<0.0002	**0.35**	<0.0025	--	<0.0005	<0.7
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0424	05/02/2024	<0.02	**0.023**	**0.023**	**0.011**	<0.001	<0.002	<0.02	--	<0.01	<0.01	**3.30**	<0.01	**0.35**	<0.0002	**0.30**	<0.01	--	<0.002	<0.8
Hunt	Supplementary	Seepage	CH-CCR-HuntB-1024	11/12/2024	<0.0025	<0.0025	<0.0025	**0.0105**	<0.00044	<0.0004	<0.01	--	**0.0063**	**0.0065**	**3.27**	<0.0025	**0.44**	<0.0002	**0.25**	<0.0025	--	<0.0005	<0.8

Notes:

GWPS exceedences are shown in red text.

Duplicate sample dates under the same location are either field duplicates or are instances of samples with multiple field/lab sample IDs on the same date.

Abbreviations and Data Qualifiers:

BTV = Background Threshold Value

degrees C = degrees Celsius

CCR = Coal Combustion Residual

FAP = Fly Ash Pond

GWPS = Groundwater Protection Standard

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

mg/L = milligrams per liter

pCi/L = Picocuries per liter

R = rejected

su = standard units

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table C-3
Groundwater Sampling Results for the FAP Monitoring Wells - Additional Analyses

					Additional Analyses																												
				Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nickel	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	SiO2, Silica	Sodium	Total Organic Carbon	Uranium
				Filtered:	N	N	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																													
M-64A	Background	Alluvial	CH-CCR-M100-217	2/20/2017	**520**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**17**	**0.8**	<0.6	--	--	**3,600**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-217	2/20/2017	**520**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**17**	<0.4	<0.6	--	--	**3,600**	--	--
M-64A	Background	Alluvial	CH-CCR-FD02-41217	4/12/2017	**520**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**14**	<0.4	**0.8**	--	--	**3,700**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-41217	4/12/2017	**520**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**14**	<0.5	<0.6	--	--	**3,800**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-42517	4/25/2017	**530**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**14**	**0.8**	**0.8**	--	--	**3,600**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-51817	5/18/2017	**530**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**14**	<0.5	**1.3**	--	--	**3,600**	--	--
M-64A	Background	Alluvial	CH-CCR-FD01-52417	5/24/2017	**530**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**13**	<0.3	**1.1**	--	--	**3,600**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-52417	5/24/2017	**530**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**14**	**0.4**	<0.6	--	--	**3,700**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-63017	6/30/2017	**450**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**14**	<0.4	<0.7	--	--	**3,700**	--	--
M-64A	Background	Alluvial	CH-CCR-FD01-72717	7/27/2017	**470**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**14**	<0.4	<0.7	--	--	**3,600**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-72717	7/27/2017	**470**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**15**	<0.4	<0.7	--	--	**3,700**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-90717	9/7/2017	**460**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**14**	<0.5	<0.7	--	--	**3,700**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-120817	12/8/2017	**540**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**14**	--	--	--	--	**3,000**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-21518	2/15/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.261**	**0.704**	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M-64A-51918	5/19/2018	**520**	<6.0	<6.0	**520**	<6.0	--	--	--	--	**200**	--	--	--	--	--	--	--	--	**13**	<0.5	<0.7	--	--	**4,000**	--	--
M-64A	Background	Alluvial	CH-CCR-M-64A-102218	10/22/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--	--	--
M-64A	Background	Alluvial	*DUP* CH-CCR-FD-01-102218	10/22/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-21319	2/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.6	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-41619	4/16/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	*DUP* CH-CCR-FD01-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-102419	10/24/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64-0520	5/6/2020	**490**	<6	<6	**490**	<6	**0.73**	**5.0**	**5.5**	**5.0**	**230**	**2.2**	**1.9**	--	--	<0.5	--	--	--	**20**	<0.4	<0.8	--	--	**3,400**	**5.1**	--
M-64A	Background	Alluvial	*DUP* CH-CCR-FD05-0520	5/6/2020	**470**	<6	<6	**470**	<6	**0.75**	**5.5**	**5.5**	**4.8**	**220**	**2.3**	**1.9**	--	--	<0.5	--	--	--	**19**	<0.4	<0.8	--	--	**3,800**	**5.5**	--
M-64A	Background	Alluvial	CH-CCR-M64-1020	10/24/2020	--	--	--	--	--	**0.77**	**4.8**	**5.5**	**5.5**	--	**2**	**2.2**	--	--	<0.25	--	--	--	--	<0.4	<0.8	--	--	--	**4.5**	--
M-64A	Background	Alluvial	CH-CCR-M64-0421	4/15/2021	--	--	--	--	--	**0.88**	**4.6 J**	**6.2**	**5.9**	**250**	**2.4**	**2.3**	--	--	<0.25	--	--	--	**18**	<0.4	<0.7	--	--	**3,800**	--	--
M-64A	Background	Alluvial	CH-CCR-M64-1021	10/22/2021	--	--	--	--	--	**0.77**	**4.5 J**	**6.1**	**6.6**	--	**2.3**	**2.5**	--	--	<0.25	--	--	--	--	<0.4	<0.6	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-0422	4/26/2022	**470**	<6	<6	**470**	<6	**0.93**	**4.9**	**6.9**	**7.1**	**270**	**2.5**	**2.6**	--	--	<0.25	--	--	--	**13**	<0.4	**1.0**	--	--	**3,300**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-1022	10/22/2022	**460**	<6	<6	**460**	<6	**0.93**	**5.3**	**8.7**	**6.5**	**270**	**2.4**	**2.4**	--	--	<0.25	--	--	--	**12**	<0.4	<0.6	--	--	**3,300**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-0423	04/17/2023	**420**	<6	<6	**420**	<6	**0.86**	**6.0**	**7.2**	**6.0**	**290**	**2.3**	**2.1**	--	--	<0.1	--	--	--	**15**	**0.5**	<0.6	--	--	**3,800**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-1023	10/11/2023	**430**	<6	<6	**430**	<6	**0.90**	**5.2 J**	**6.3**	**6.5**	**260**	**2.2**	**2.2**	--	--	<0.1	--	--	--	**14**	**0.7**	<0.72	--	--	**2,900**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-0424	04/18/2024	**430**	<6	<6	**430**	<6	**0.96**	**4.5**	**7.3**	**6.3**	**280**	**2.3**	**2.2**			<0.1				**17**	<0.4	<0.75	--	--	**3,300**	--	--
M-64A	Background	Alluvial	CH-CCR-MW64A-1024	10/30/2024	**458**	--	--	--	--	<0.1	**6.63**	**6.43**	**5.98**	**288**	**2.3**	**2.3**	--	--	<0.2	--	--	--	**20.6**	<0.5	**0.7**	--	--	**3,130**	--	--
M-50A	Downgradient	Alluvial	7792	12/2/2015	**170**	<6.0	<6.0	--	--	--	--	--	--	**250**	--	--	--	--	--	--	--	--	**8.8**	<0.4	<0.7	--	**16**	**1,900**	--	--
M-50A	Downgradient	Alluvial	7793	12/2/2015	**180**	<6.0	<6.0	--	--	--	--	--	--	**250**	--	--	--	--	--	--	--	--	**8.7**	<0.4	<0.7	--	**16**	**1,900**	--	--
M-50A	Downgradient	Alluvial	CH-M-50A-0316	3/8/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.2	<0.5	--	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-516	5/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**	<0.8	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-816	8/25/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-916	9/23/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**1.1**	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-217	2/21/2017	**170**	<6.0	<6.0	--	--	--	--	--	--	**240**	--	--	--	--	--	--	--	--	**8.7**	<0.4	<0.6	--	--	**1,800**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-41317	4/13/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**7.9**	<0.6	<0.6	--	--	**1,700**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-42617	4/26/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**8.0**	<0.4	<0.6	--	--	**1,800**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-51817	5/18/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**240**	--	--	--	--	--	--	--	--	**8.1**	**0.6**	<0.6	--	--	**1,800**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-52417	5/24/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**250**	--	--	--	--	--	--	--	--	**8.8**	**0.8**	<0.6	--	--	**1,900**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-63017	6/30/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**7.8**	<0.5	<0.7	--	--	**1,800**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-72717	7/27/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**240**	--	--	--	--	--	--	--	--	**8.1**	<0.4	<0.7	--	--	**1,800**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-90717	9/7/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**240**	--	--	--	--	--	--	--	--	**8.3**	<0.4	<0.6	--	--	**1,800**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-120817	12/8/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**8.4**	--	--	--	--	**1,700**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-FD01-21418	2/14/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.2**	**0.1**	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-21418	2/14/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.1**	**0.4**	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M-50A-52118	5/21/2018	**180**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**7.5**	**0.4**	<0.6	--	--	**1,700**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M-50A-102418	10/24/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--	--	--
M-50A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-21319	2/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**0.9**	--	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-21319	2/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.6	--	--	--	--	--	--
M-50A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.6	<0.7	--	--	--	--	--	--
M-50A	Downgradient	Alluvial	CCH-CCR-M50A-112519	11/25/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-112519	11/25/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0520	5/6/2020	**160**	<6	<6	--	--	<0.5	**2.9 J**	<0.1	<0.1	**200**	**0.25**	**0.23**	--	--	<0.5	--	--	--	**9.8**	<0.4	<0.8	--	--	**1,600**	**2.9**	--
M-50A	Downgradient	Alluvial	CH-CCR-M50-1020	10/25/2020	--	--	--	--	--	<0.5	**2.9**	**0.28**	**0.21**	--	**0.24**	**0.22**	--	--	<0.25	--	--	--	--	<0.4	<0.8	--	--	--	**2.6**	--
M-50A	Downgradient	Alluvial	CH-CCR-M50-0421	4/15/2021	--	--	--	--	--	<0.05	**2.6**	**0.13**	**0.084 J**	**220**	**0.36**	**0.25**	--	--	<0.25	--	--	--	**8.2**	<0.4	<0.7	--	--	**1,700**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50-1021	10/23/2021	--	--	--	--	--	<0.05	**2.9**	**0.087 J**	**0.037 J**	--	**0.37**	**0.38**	--	--	<0.25	--	--	--	--	<0.5	<0.6	--	--	--	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0422	4/28/2022	**170**	<6	<6	**170**	<6	<0.05	**2.8**	**0.24**	**0.20**	**210**	**0.41**	**0.38**	--	--	<0.25	--	--	--	**6.4**	<0.4	<0.6	--	--	**1,600**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-1022	10/22/2022	**170**	<6	<6	**170**	<6	<0.05	**3.5**	**0.19**	**0.15**	**210**	**0.41**	**0.39**	--	--	<0.25	--	--	--	**5.7**	<0.4	<0.6	--	--	**1,600**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0423	04/17/2023	**170**	<6	<6	**170**	<6	<0.05	**3.3**	**0.18**	<0.1	**200**	**0.40**	**0.35**	--	--	<0.1	--	--	--	**6.6**	<0.51	<0.6	--	--	**1,700**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-1023	10/17/2023	**160**	<6	<6	**160**	<6	<0.05	**2.8**	<0.1	<0.1	**180**	**0.31**	**0.30**	--	--	<0.1	--	--	--	**5.7**	<0.37	<0.75	--	--	**1,600**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-0424	04/18/2024	**150**	<6	<6	**150**	<6	<0.05	**2.5**	**0.19**	<0.1	**190**	**0.26**	**0.22**			<0.1				**9.2**	<0.42	<0.75	--	--	**1,600**	--	--
M-50A	Downgradient	Alluvial	CH-CCR-M50A-1024	11/06/2024	**159**	--	--	--	--	<0.1	**2.67**	**0.0527**	<0.05	**185**	**0.327**	**0.332**	--	--	<0.2	--	--	--	**10.6**	<0.5	<0.7	--	--	**1,470**	--	--

Table C-3
Groundwater Sampling Results for the FAP Monitoring Wells - Additional Analyses

					Additional Analyses																													
				Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nickel	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	SiO2, Silica	Sodium	Total Organic Carbon	Uranium
				Filtered:	N	N	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																														
M-51A	Downgradient	Alluvial	7880	12/2/2015	**99**	<6.0	<6.0	--	--	--	--	--	--	**370**	--	--	--	--	--	--	--	--	**36**	<0.5	<0.9	--	**13**	**3,600**	--	--
M-51A	Downgradient	Alluvial	CH-M-51A-0316	3/9/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.2	<0.9	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-DUP02-0316	3/9/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.3	<0.8	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0516	5/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.8	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-816	8/25/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-916	9/23/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-217	2/21/2017	**94**	<6.0	<6.0	--	--	--	--	--	--	**330**	--	--	--	--	--	--	--	--	**33**	<0.4	**0.6**	--	--	**3,500**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-41317	4/13/2017	**97**	<6.0	<6.0	--	--	--	--	--	--	**330**	--	--	--	--	--	--	--	--	**32**	<0.6	<0.6	--	--	**3,500**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-42617	4/26/2017	**97**	<6.0	<6.0	--	--	--	--	--	--	**330**	--	--	--	--	--	--	--	--	**34**	<0.4	<0.6	--	--	**3,500**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-51817	5/18/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**320**	--	--	--	--	--	--	--	--	**35**	<0.4	<0.6	--	--	**3,400**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-52417	5/24/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**360**	--	--	--	--	--	--	--	--	**38**	<0.4	**0.6**	--	--	**3,600**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-FD02-63017	6/30/2017	**99**	<6.0	<6.0	--	--	--	--	--	--	**330**	--	--	--	--	--	--	--	--	**36**	<0.5	<0.7	--	--	**3,500**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-63017	6/30/2017	**99**	<6.0	<6.0	--	--	--	--	--	--	**340**	--	--	--	--	--	--	--	--	**37**	<0.5	<0.7	--	--	**3,500**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-72717	7/27/2017	**98**	<6.0	<6.0	--	--	--	--	--	--	**340**	--	--	--	--	--	--	--	--	**39**	<0.4	<0.7	--	--	**3,500**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-90717	9/7/2017	**99**	<6.0	<6.0	--	--	--	--	--	--	**340**	--	--	--	--	--	--	--	--	**38**	<0.4	<0.6	--	--	**3,500**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-120817	12/8/2017	**95**	<6.0	<6.0	--	--	--	--	--	--	**310**	--	--	--	--	--	--	--	--	**34**	--	--	--	--	**3,300**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-21418	2/14/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.1**	**0.1**	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M-51A-52118	5/21/2018	**95**	<6.0	<6.0	--	--	--	--	--	--	**290**	--	--	--	--	--	--	--	--	**31**	<0.4	<0.6	--	--	**3,800**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M-51A-102418	10/24/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-21319	2/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.6	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-41119	4/10/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.6	<0.7	--	--	--	--	--
M-51A	Downgradient	Alluvial	CCH-CCR-M51A-112519	11/25/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-112519	11/25/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0520	5/6/2020	**83**	<6	<6	--	--	<0.5	**1.8**	<0.1	<0.1	**280**	**0.89**	**0.84**	--	--	<0.5	--	--	--	**35**	<0.4	<0.8	--	--	**3,000**	**1.7**	--
M-51A	Downgradient	Alluvial	CH-CCR-M51-1020	10/25/2020	--	--	--	--	--	<0.5	**1.6 J**	**0.041**	<0.1	--	**0.92**	**0.97**	--	--	<0.25	--	--	--	--	<0.4	<0.8	--	--	--	**1.5**	--
M-51A	Downgradient	Alluvial	*DUP* CH-CCR-FD05-1020	10/25/2020	--	--	--	--	--	**0.36**	**1.6 J**	**0.022**	**0.024**	--	**0.95**	**1**	--	--	<0.25	--	--	--	--	**0.4**	<0.8	--	--	--	**1.5**	--
M-51A	Downgradient	Alluvial	CH-CCR-M51-0421	4/15/2021	--	--	--	--	--	<0.05	**1.7**	**0.11**	**0.072 J**	**290**	**0.51**	**0.51**	--	--	**0.18 J**	--	--	--	**33**	<0.4	<0.7	--	--	**3,300**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51-1021	10/23/2021	--	--	--	--	--	**0.061**	**1.7**	**0.039 J**	**0.037 J**	--	**0.86**	**0.89**	--	--	<0.25	--	--	--	--	**0.7**	<0.6	--	--	--	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0422	4/28/2022	**87**	<6	<6	**87**	<6	<0.05	**1.7**	**0.11**	**0.11**	**270**	**0.17**	**0.18**	--	--	**0.20 J**	--	--	--	**27**	<0.4	<0.6	--	--	**2,900**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-1022	10/22/2022	**89**	<6	<6	**89**	<6	**0.062**	**2.3**	**0.13**	**0.11**	**270**	**0.59**	**0.56**	--	--	<0.25	--	--	--	**33**	<0.4	<0.6	--	--	**3,000**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0423	04/17/2023	**82**	<6	<6	**82**	<6	**0.057**	**2.4**	<0.1	<0.1	**280**	**0.59**	**0.55**	--	--	**0.16**	--	--	--	**29**	<0.5	<0.6	--	--	**3,200**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-1023	10/17/2023	**77**	<6	<6	**77**	<6	**0.12**	**2.1**	<0.1	<0.1	**250**	**1.1**	**1.1**	--	--	<0.1	--	--	--	**27**	<0.37	<0.75	--	--	**3,200**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-0424	04/18/2024	**73**	<6	<6	**73**	<6	**0.12**	**2.2**	**0.11**	<0.1	**280**	**1.8**	**1.9**			<0.1				**31**	<0.41	<0.75	--	--	**3,200**	--	--
M-51A	Downgradient	Alluvial	CH-CCR-M51A-1024	11/06/2024	**88.2**	--	--	--	--	**0.126**	**1.82**	<0.05	<0.05	**274**	**1.93**	**1.93**	--	--	<0.2	--	--	--	**38.7**	<0.5	<0.7	--	--	**3,170**	--	--
MW-65A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-12518	12/5/2018	**100**	<6.0	<6.0	--	--	--	--	--	--	**470**	--	--	--	--	--	--	--	--	**89**	<0.4	**0.9**	--	**20**	**4,000**	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-MW65A-2518	12/5/2018	**160**	<6.0	<6.0	--	--	--	--	--	--	**290**	--	--	--	--	--	--	--	--	**28**	<0.4	**0.9**	--	**32**	**2,000**	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-21419	2/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.6	--	--	--	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65A	Downgradient	Alluvial	CCH-CCR-M65A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65-0520	5/5/2020	**150**	<6	<6	--	--	<0.5	**2.4**	<0.1	<0.1	**270**	**0.31**	**0.29**	--	--	<0.5	--	--	--	**30**	<0.4	<0.8	--	--	**1,900**	**2.1**	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65-1020	10/25/2020	--	--	--	--	--	<0.5	**2.7**	**1.2**	**0.84**	--	**0.3**	**0.33**	--	--	<0.25	--	--	--	--	<0.4	<0.8	--	--	--	**3.2**	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65-0421	4/14/2021	--	--	--	--	--	**0.041 J**	**2.4**	**0.45**	**0.37**	**300**	**0.31**	**0.27**	--	--	<0.25	--	--	--	**33**	<0.4	<0.7	--	--	**2,100**	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65-1021	10/22/2021	--	--	--	--	--	**0.061**	**2.8**	**1.3**	**0.43**	--	**0.28**	**0.24**	--	--	<0.25	--	--	--	--	**0.4**	**0.9**	--	--	--	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-0422	4/26/2022	**170**	<6	<6	**170**	<6	**0.045 J**	**2.6**	**0.46**	**0.47**	**280**	**0.26**	**0.26**	--	--	<0.25	--	--	--	**28**	<0.4	<0.6	--	--	**1,900**	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-1022	10/21/2022	**210**	<6	<6	**210**	<6	<0.05	**4.7**	**8.4**	**8**	**330**	**1.2**	**1.2**	--	--	<0.25	--	--	--	**34**	<0.4	<0.6	--	--	**2,300**	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-0423	04/15/2023	**160**	<6	<6	**160**	<6	**0.065**	**3.1**	**0.22**	**0.19**	**300**	**0.30**	**0.30**	--	--	<0.1	--	--	--	**30**	<0.39	**1.3**	--	--	**2,100**	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-1023	10/16/2023	**230**	<6	<6	**230**	<6	<0.05	**4**	**0.43**	**0.29**	**360**	**0.22**	**0.23**	--	--	<0.1	--	--	--	**33**	<0.37	<0.75	--	--	**2,900**	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-M65A-0424	04/24/2024	**160**	<6	<6	**160**	<6	0.13	**3.5**	**1.1 J**	**0.21**	**300 J**	**0.32**	**0.31**			<0.1				**35 J**	<0.49	**1.4**	--	--	**1,800**	--	--
MW-65A	Downgradient	Alluvial	CH-CCR-MW65A-1024	11/12/2024	**171**	--	--	--	--	**0.237**	<20	**0.885**	**0.183**	**239**	**0.294**	**0.335**	--	--	<0.2	--	--	--	**25.4**	<0.4	<0.8	--	--	**1,790**	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-MW66A-2518	12/5/2018	**80**	<6.0	<6.0	--	--	--	--	--	--	**280**	--	--	--	--	--	--	--	--	**11**	<0.4	<0.6	--	**55**	**2,500**	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-21419	2/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-66A	Downgradient	Alluvial	*DUP* CCH-CCR-FD01-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--
MW-66A	Downgradient	Alluvial	*DUP* CH-CCR-FD01-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-66A	Downgradient	Alluvial	CCH-CCR-M66A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66-0520	5/5/2020	**150**	<6	<6	--	--	<0.5	**2.3**	**0.23**	**0.15**	**280**	**4.3**	**4.1**	--	--	<0.5	--	--	--	**14**	<0.4	<0.8	--	--	**2,400**	**2.7**	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66-1020	10/25/2020	--	--	--	--	--	<0.5	**2.3**	**0.27**	**0.25**	--	**3.8**	**4.1**	--	--	<0.25	--	--	--	--	<0.4	<0.8	--	--	--	**2.3**	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66-0421	4/15/2021	--	--	--	--	--	<0.05	**2.3**	**1.8**	**0.81**	**290**	**3.9**	**3.6**	--	--	<0.25	--	--	--	**11**	<0.4	<0.7	--	--	**2,700**	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66-1021	10/24/2021	--	--	--	--	--	**0.13**	**2.3**	**1.1**	**0.26**	--	**3.5**	**3.6**	--	--	<0.25	--	--	--	--	<0.42	<0.6	--	--	--	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-0422	4/27/2022	**160**	<6	<6	**160**	<6	**0.089**	**2.4**	**0.96**	**0.095 J**	**300**	**3.6**	**3.6**	--	--	<0.25	--	--	--	**8.6**	<0.4	<0.6	--	--	**2,500**	--	--
MW-66A	Downgradient	Alluvial	*DUP* CH-CCR-FD06-0422	4/27/2022	**160**	<6	<6	**160**	<6	**0.060**	**2.4**	**0.94**	**0.093 J**	**280**	**3.6**	**3.6**	--	--	<0.25	--	--	--	**8.2**	<0.4	**0.7**	--	--	**2,500**	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-1022	10/21/2022	**160**	<6	<6	**160**	<6	**0.075**	**3.1**	**2.4**	<0.1	**280**	**3.7**	**3.4**	--	--	<0.25	--	--	--	**7.5**	<0.4	<0.6	--	--	**2,500**	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-0423	04/15/2023	**160**	<6	<6	**160**	<6	**0.086**	**3**	**2.2**	**0.13**	**360**	**3.9**	**3.8**	--	--	<0.1	--	--	--	**11**	<0.58	<0.6	--	--	**3,000**	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-M66A-1023	10/16/2023	**150**	<6	<6	**150**	<6	**0.067**	**2.7**	**1.8**	<0.1	**250**	**2.9**	**2.7**	--	--	<0.1	--	--	--	**6.5**	<0.37	<0.75	--	--	**2,600**	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-MW66A-0424	04/17/2024	**150**	<6	<6	**150**	<6	**0.069**	**2.6**	**3.6**	0.14	**250**	**3**	**3.1**			<0.1				**8.3**	<0.4	<0.75	--	--	**2,500**	--	--
MW-66A	Downgradient	Alluvial	CH-CCR-MW66A-1024	11/04/2024	**169**	--	--	--	--	<0.1	**2.98**	**1.21**	<0.05	**236**	**3.06**	**3.05**	--	--	<0.2	--	--	--	**11.3**	<0.5	**0.9**	--	--	**2,180**	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-MW67A-2518	12/5/2018	**180**	<6.0	<6.0	--	--	--	--	--	--	**270**	--	--	--	--	--	--	--	--	**12**	<0.4	<0.6	--	**41**	**1,400**	--	--

Table C-3
Groundwater Sampling Results for the FAP Monitoring Wells - Additional Analyses

					Additional Analyses																											
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nickel	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	SiO2, Silica	Sodium	Total Organic Carbon	Uranium
Filtered:					N	N	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L
FAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																												
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-21419	2/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**1.4**	--	--	--	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-67A	Downgradient	Alluvial	CCH-CCR-M67A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**0.9**	--	--	--	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67-0520	5/5/2020	**170**	<6	<6	--	--	**1.4**	**2.2**	**8.0**	**7.8**	**290**	**5.1**	**4.9**	--	--	<0.5	--	--	--	**14**	<0.4	<0.8	--	--	**1,500**	**2.3**	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67-1020	10/25/2020	--	--	--	--	--	**1.4**	**2.2**	**8.2**	**8**	--	**4.7**	**5.1**	--	--	<0.25	--	--	--	--	<0.4	<0.8	--	--	--	**2.1**	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67-0421	4/14/2021	--	--	--	--	--	**1.6**	**2.4**	**8.8**	**7.8**	**320**	**5.2**	**4.9**	--	--	**0.27**	--	--	--	**14**	<0.4	<0.7	--	--	**1,600**	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67-1021	10/22/2021	--	--	--	--	--	**1.4**	**2.3**	**8.3**	**8.5**	--	**4.9**	**5**	--	--	<0.25	--	--	--	--	<0.4	<0.6	--	--	--	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-0422	4/27/2022	**230**	<6	<6	**230**	<6	**0.56**	**1.1**	**4.2**	**3.5**	**280**	**2.2**	**2.1**	--	--	<0.25	--	--	--	**13**	<0.4	**1.0**	--	--	**970**	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-1022	10/21/2022	**240**	<6	<6	**240**	<6	**0.45**	**1.7**	**3.2**	**3**	**260**	**1.9**	**1.8**	--	--	<0.25	--	--	--	**13**	<0.4	<0.6	--	--	**900**	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-0423	04/15/2023	**240**	<6	<6	**240**	<6	**0.39**	**1.5**	**2.9**	**2.5**	**320**	**2.1**	**2.0**	--	--	<0.1	--	--	--	**15**	<0.57	<0.6	--	--	**1,000**	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-1023	10/16/2023	**240**	<6	<6	**240**	<6	**0.33**	**1.2**	**4.0**	**2.3**	**220**	**1.5**	**1.4**	--	--	<0.1	--	--	--	**12**	<0.37	**0.8**	--	--	**770**	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-0424	04/29/2024	**240**	<6	<6	**240**	<6	**0.3**	**0.92**	**3.6**	**2.2**	**240**	**1.6**	**1.6**	--	--	<0.1	--	--	--	<50	<0.49	<0.75	--	--	**960**	--	--
MW-67A	Downgradient	Alluvial	CH-CCR-M67A-1024	11/12/2024	**247**	--	--	--	--	**0.392**	<20	**3.41**	**2.59**	**191**	**1.29**	**1.49**	--	--	<0.2	--	--	--	**10.7**	**1.1**	<0.8	--	--	**805**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-W-123-0316	3/8/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.3	<0.4	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-0516	5/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.8	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-816	8/25/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.5**	<0.6	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-916	9/22/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.6**	<0.7	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-217	2/20/2017	**68**	<6.0	<6.0	--	--	--	--	--	--	**310**	--	--	--	--	--	--	--	--	**47**	<0.4	<0.6	--	--	**3,900**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-41317	4/13/2017	**69**	<6.0	<6.0	--	--	--	--	--	--	**300**	--	--	--	--	--	--	--	--	**43**	<0.4	<0.6	--	--	**3,800**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-42617	4/26/2017	**70**	<6.0	<6.0	--	--	--	--	--	--	**290**	--	--	--	--	--	--	--	--	**44**	<0.4	<0.6	--	--	**3,700**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-52217	5/22/2017	**73**	<6.0	<6.0	--	--	--	--	--	--	**310**	--	--	--	--	--	--	--	--	**48**	<0.5	<0.6	--	--	**4,100**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-52417	5/24/2017	**72**	<6.0	<6.0	--	--	--	--	--	--	**290**	--	--	--	--	--	--	--	--	**44**	<0.3	<0.6	--	--	**3,800**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-63017	6/30/2017	**77**	<6.0	<6.0	--	--	--	--	--	--	**310**	--	--	--	--	--	--	--	--	**47**	<0.4	<0.7	--	--	**3,900**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-72717	7/27/2017	**79**	<6.0	<6.0	--	--	--	--	--	--	**310**	--	--	--	--	--	--	--	--	**51**	<0.4	<0.6	--	--	**3,900**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-90717	9/7/2017	**84**	<6.0	<6.0	--	--	--	--	--	--	**320**	--	--	--	--	--	--	--	--	**52**	<0.5	<0.7	--	--	**3,900**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-120817	12/8/2017	**69**	<6.0	<6.0	--	--	--	--	--	--	**300**	--	--	--	--	--	--	--	--	**48**	--	--	--	--	**3,800**	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-21418	2/14/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.1**	**0.4**	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W-123-52118	5/21/2018	**74**	<6.0	<6.0	--	--	--	--	--	--	**290**	--	--	--	--	--	--	--	--	**45**	<0.4	**0.8**	--	--	**4,500**	--	--
W-123	Downgradient	Moenkopi-Moqui	*DUP* CH-CCR-FD-02-102418	10/24/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W-123-102418	10/24/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-21319	2/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	*DUP* CH-CCR-FD02-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.6	<0.7	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-w123-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.6	<0.7	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	*DUP* CH-CCR-FD02-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CCH-CCR-W123-112519	11/25/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-112519	11/25/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-0520	5/6/2020	**54**	<6	<6	--	--	<0.5	**1.9**	**0.16**	<0.1	**270**	<0.01	<0.01	--	--	**0.83**	--	--	--	**48**	<0.4	<0.8	--	--	**3,500**	**2.1**	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-1020	10/26/2020	--	--	--	--	--	<0.5	**1.7**	**0.3**	**0.075**	--	**0.12**	**0.022**	--	--	**0.79**	--	--	--	--	<0.4	<0.8	--	--	--	**1.5**	--
W-123	Downgradient	Moenkopi-Moqui	CH-CCR-W123-0421	4/15/2021	--	--	--	--	--	<0.05	**1.6**	**1.8**	**0.24**	**310**	**0.16**	**0.034**	--	--	**0.85**	--	--	--	**58**	<0.4	<0.7	--	--	**3,700**	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-DEV-W123R-0621	6/5/2021	**49 J**	<6 UJ	<6 UJ	**49 J**	<6 UJ	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**30**	--	--	--	--	**3,800**	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-ABREP-W123R-0621	6/15/2021	**48**	<6	<6	**48**	<6	--	--	**0.064 J**	--	**280**	--	--	--	--	--	--	--	--	**34**	--	--	--	--	--	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0821	8/3/2021	--	--	--	--	--	**1.3**	**2.0**	**0.04 J**	**0.042 J**	--	**2.4**	**2.6**	--	<0.25	--	--	--	--	--	<0.7	<0.6	--	--	--	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1021	10/23/2021	--	--	--	--	--	**1.2**	**2.0**	**0.058 J**	**0.043 J**	--	**2.5**	**2.7**	--	--	**0.17 J**	--	--	--	--	<0.4	<0.6	--	--	--	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0422	4/28/2022	**54**	<6	<6	**54**	<6	**1.3**	**2.1 J**	**0.053 J**	**0.043 J**	**310**	**2.8**	**2.7**	--	--	<0.25	--	--	--	**37**	<0.4	<0.6	--	--	**3,700**	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-SS10-0422	4/28/2022	**51**	<20	<20	**51**	--	**1.22**	**2.0 J**	<1.5	<1.5	**255**	**2.63**	**2.8**	--	--	<0.1	--	--	--	**28.6**	--	--	--	--	**3,540**	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1022	10/22/2022	**48**	<6	<6	**48**	<6	**1.3**	**2.5**	**0.11**	<0.1	**260**	**2.5**	**2.4**	--	--	<0.25	--	--	--	**36**	<0.4	<0.6	--	--	**3,400**	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0423	04/17/2023	**47**	<6	<6	**47**	<6	**1.3**	**2.4**	<0.1	<0.1	**280**	**2.5**	**2.2**	--	--	<0.1	--	--	--	**37**	<0.49	**0.6**	--	--	**4,000**	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1023	10/11/2023	**47**	<6	<6	**47**	<6	**1.4**	**2.6**	<0.1	<0.1	**280**	**2.8**	**2.8**	--	--	<0.1	--	--	--	**38**	<0.4	**1.0**	--	--	**3,300**	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-0424	04/18/2024	**48**	<6	<6	**48**	<6	**1.6**	**2.5**	**0.12**	<0.1	**330**	**3.1**	**3.1**			<0.1				**39**	<0.4	<0.75	--	--	**3,900**	--	--
W-123R	Downgradient	Moenkopi-Moqui	CH-CCR-W123R-1024	11/06/2024	**57.4**	--	--	--	--	**1.63**	**2.82**	<0.05	<0.05	**415**	**4.42**	**4.7**	--	--	<0.2	--	--	--	**51.5**	**0.8**	**1.1**	--	--	**4,100**	--	--
EW-01	Extraction Well	Alluvial	CH-CCR-EW01-1023	10/23/2023	**78**	<6	<6	**78**	<6	**0.28**	**2.4**	14 J	67 J	**300**	**3.0 J**	**9.7 J**	--	--	<0.1	--	--	--	**20**	<0.41	<0.73	--	--	**3,000**	**2.0**	--
EW-01	Extraction Well	Alluvial	CH-CCR-EW01-0424	05/02/2024	**140**	<6	<6	**140**	<6	**0.11**	**2.2 J**	**3.3**	**2.9**	**300**	**5.8**	**6.0**	--	--	<0.1	--	--	--	**6.6 J**	<0.48	<0.75	--	--	**2,600**	**2.0**	--
EW-01	Extraction Well	Alluvial	CH-CCR-EW01-1024	11/13/2024	**139**	<20	--	--	--	<0.1	<20	**1.5**	**0.915**	**253**	**4.11**	**4.5**	--	--	<0.2	--	--	--	**8.19**	**0.6**	<0.8	--	--	**2,160**	**1.5**	--
EW-02	Extraction Well	Alluvial	EW02-018521	1/8/2021	**150**	<6	<6	**150**	<6	--	--	**0.37**	--	**330**	--	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--	--
EW-02	Extraction Well	Alluvial	CH-CCR-EW02-1023	10/23/2023	**110**	<6	<6	**110**	<6	**0.17**	**3.1**	**2.4 J**	**3.2 J**	**360**	**8.5 J**	**11 J**	--	--	<0.1	--	--	--	**22**	<0.41	<0.73	--	--	**3,100**	**2.7**	--
EW-02	Extraction Well	Alluvial	CH-CCR-EW02-0424	05/02/2024	**140**	<6	<6	**140**	<6	<0.05	**2.2 J**	**0.36**	**0.17**	**320**	**2.3**	**2.3**	--	--	<0.1	--	--	--	**5.9**	<0.47	<0.75	--	--	**2,700**	**2.1**	--
EW-02	Extraction Well	Alluvial	CH-CCR-EW02-1024	11/13/2024	**98.6**	<20	--	--	--	<0.1	<20	**29.1**	**16.7**	**489**	**3.68**	**3.57**	--	--	<0.2	--	--	--	**14.6**	**0.5**	<0.8	--	--	**4,310**	**2.19**	--
EW-03	Extraction Well	Alluvial	CH-CCR-EW03-1023	10/23/2023	**120**	<6	<6	**120**	<6	**0.055**	**2.1**	**0.68**	**0.13**	**320**	**2.2**	**2.2**	--	--	<0.1	--	--	--	**15**	<0.41	<0.73	--	--	**2,300**	**1.8**	--
EW-03	Extraction Well	Alluvial	CH-CCR-EW03-0424	05/02/2024	**110**	<6	<6	**110**	<6	<0.05	**2.3 J**	**25**	**0.12**	**350**	**2.0**	**0.48**	--	--	<0.1	--	--	--	**18**	<0.47	<0.75	--	--	**3,400**	**2.3**	--
EW-03	Extraction Well	Alluvial	CH-CCR-EW03-1024	11/13/2024	**103**	<20	--	--	--	<0.1	<20	**5.0**	**1.81**	**280**	**2.1**	**2.33**	--	--	<0.2	--	--	--	**21.2**	**0.7**	<0.8	--	--	**2,770**	**2.09**	--
EW-04	Extraction Well	Alluvial	EW04-010521	1/5/2021	**51**	<6	<6	**51**	<6	--	--	**0.089 J**	--	**200**	--	--	--	--	--	--	--	--	**29**	--	--	--	--	--	--	--
EW-04	Extraction Well	Alluvial	CH-CCR-EW04-1023	10/23/2023	**42**	<6	<6	**42**	<6	**1.1**	**1.7**	<0.1	<0.1	**190**	**0.89**	**0.89**	--	--	<0.1	--	--	--	**26**	<0.41	<0.73	--	--	**3,100**	**1.8**	--
EW-04	Extraction Well	Alluvial	CH-CCR-EW04-0424	05/02/2024	**43**	<6	<6	**43**	<6	**1.1**	**1.9 J**	<0.1	<0.1	**190**	**0.96**	**1.0**	--	--	<0.1	--	--	--	**25**	**0.50**	<0.75	--	--	**4,400**	**1.7**	--
EW-04	Extraction Well	Alluvial	CH-CCR-EW04-1024	11/13/2024	**48.7**	<20	--	--	--	**1.13**	<20	**0.27**	<0.05	**188**	**1.02**	**1.2**	--	--	<0.2	--	--	--	**25.4**	**1.5**	**1.4**	--	--	**3,330**	**1.72**	--
GSX-1R	Extraction Well	Alluvial	CH-CRT-GSX1R-0621	6/28/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GSX-1R	Extraction Well	Alluvial	CH-CRT2-GSX1R-0621	6/29/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GSX-1R	Extraction Well	Alluvial	CH-CRT3-GSX1R-0621	6/29/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-0821	8/3/2021	**75**	<6	<6	**75**	<6	**0.13**	--	**0.058 J**	--	**240**	**0.67**	--	--	<0.25	--	--	--	--	**18**	<0.4	<0.6	--	--	**3,100**	**1.7**	--

Table C-3
Groundwater Sampling Results for the FAP Monitoring Wells - Additional Analyses

					Additional Analyses																												
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nickel	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	SiO2, Silica	Sodium	Total Organic Carbon	Uranium
Filtered:					N	N	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																													
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-1023	10/23/2023	**75**	<6	<6	**75**	<6	**0.14**	**2.0**	**0.10**	<0.1	**250**	**0.92**	**0.93**	--	--	<0.1	--	--	--	**26**	<0.41	<0.73	--	--	**2,500**	**1.8**	--
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-0424	05/02/2024	**76**	<6	<6	**76**	<6	**0.31**	**2.2 J**	**0.36**	**0.10**	**290**	**1.1**	**1.0**	--	--	<0.1	--	--	--	**32**	<0.46	<0.75	--	--	**3,500**	**1.8**	--
GSX-1R	Extraction Well	Alluvial	CH-CCR-GSX1R-1024	11/13/2024	**90.8**	<20	--	--	--	**0.119**	<20	<0.05	<0.05	**255**	**1.03**	**1.1**	--	--	<0.2	--	--	--	**27.7**	**0.4**	<0.8	--	--	**2,650**	**1.69**	--
GSX-3	Extraction Well	Alluvial	CH-CCR-GSX3-1024	11/13/2024	**98.5**	<20	--	--	--	<0.1	<20	**0.537**	**0.082**	**566**	**0.355**	**0.37**	--	--	<0.2	--	--	--	**52**	--	--	--	--	**4,910**	**2.54**	--
GSX-4	Extraction Well	Alluvial	CH-CCR-GSX4-1024	11/13/2024	**89.1**	<20	--	--	--	**1.36**	<20	**2.1**	**0.078**	**221**	**3.68**	**0.49**	--	--	<0.2	--	--	--	**26.8**	--	--	--	--	**3,090**	**2.96**	--
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1216	12/21/2016	**250**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**10**	--	--	--	--	**1,100**	--	--
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1216	12/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-43A	Supplementary	Alluvial	CH-CCR-M43-0421	4/14/2021	--	--	--	--	--	**0.43**	**1.2**	**3.2**	**2.7**	**230**	**3.1**	**2.9**	--	--	<0.25	--	--	--	**11**	**0.6**	<0.7	--	--	**1,100**	--	--
M-43A	Supplementary	Alluvial	CH-CCR-M43-1021	10/22/2021	--	--	--	--	--	**0.35 J**	<1.4	**2.6**	**2.6**	--	**2.7**	**2.8**	--	--	<0.25	--	--	--	--	<0.5	<0.6	--	--	--	--	--
M-43A	Supplementary	Alluvial	CH-CCR-MW43A-0422	4/26/2022	--	--	--	--	--	**0.36**	**1.4 J**	**2.4**	**2.4 J**	**230**	**2.5**	**2.4**	--	--	<0.25	--	--	--	--	**0.5**	<0.6	--	--	--	--	--
M-43A	Supplementary	Alluvial	CH-CCR-M43A-0423	04/15/2023	--	--	--	--	--	**0.44**	**1.7**	**3.2**	**2.5**	--	**2.9**	**2.8**	--	--	<0.1	--	--	--	--	<0.38	<0.58	--	--	--	--	--
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1023	10/16/2023	--	--	--	--	--	**0.37**	**1.8**	**1.9**	**1.8**	--	**1.6**	**1.6**	--	--	<0.1	--	--	--	--	<0.38	**1.3**	--	--	--	--	--
M-43A	Supplementary	Alluvial	CH-CCR-M43A-0424	04/18/2024	--	--	--	--	--	**0.4**	**1.6**	**2.8**	**2.6**	**200**	**2.5**	**2.5**			<0.1				**13**	<0.43	<0.75	--	--	**1,500**	--	--
M-43A	Supplementary	Alluvial	CH-CCR-M43A-1024	10/31/2024	--	<20	<20	--	--	**0.327**	**3.2**	**2.3**	**1.78**	**205**	**1.73**	**1.74**	--	--	<0.2	--	--	--	**13.5**	<0.4	**1.6**	--	--	**1,470**	--	--
M-44D	Supplementary	Coconino	7795	12/2/2015	**120**	<6.0	<6.0	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--	--	**4.4**	**2.8**	**1.0**	--	**6.2**	**670**	--	--
M-44D	Supplementary	Coconino	CH-M-44D-0316	3/10/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**	**1.3**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M-44D-516	5/22/2016	**120**	<6.0	<6.0	--	--	--	--	--	--	**47**	--	--	--	--	--	--	--	--	**4.1**	**2.7**	**1.2**	--	**5.6**	**670**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-816	8/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**	**2.3**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-916	9/23/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**	**2.1**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-217	2/20/2017	**120**	<6.0	<6.0	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--	--	**4.6**	**2.6**	**1.0**	--	--	**680**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-41317	4/13/2017	**120**	<6.0	<6.0	--	--	--	--	--	--	**47**	--	--	--	--	--	--	--	--	**4.3**	**2.0**	**2.2**	--	--	**640**	--	--
M-44D	Supplementary	Coconino	CH-CCR-FD01-42417	4/24/2017	**120**	<6.0	<6.0	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--	--	**4.5**	**2.0**	<0.6	--	--	**680**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-42417	4/24/2017	**120**	<6.0	<6.0	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--	--	**4.5**	**1.7**	**0.7**	--	--	**670**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-52217	5/22/2017	**120**	<6.0	<6.0	--	--	--	--	--	--	**49**	--	--	--	--	--	--	--	--	**4.5**	**2.5**	**1.1**	--	--	**680**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-52517	5/25/2017	**120**	<6.0	<6.0	--	--	--	--	--	--	**50**	--	--	--	--	--	--	--	--	**4.7**	**2.1**	**2.6**	--	--	**700**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-62917	6/29/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**47**	--	--	--	--	--	--	--	--	**4.1**	**3.1**	**1.5**	--	--	**640**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-72917	7/29/2017	**120**	<6.0	<6.0	--	--	--	--	--	--	**50**	--	--	--	--	--	--	--	--	**4.5**	**2.2**	**1.0**	--	--	**670**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-90517	9/5/2017	**120**	<6.0	<6.0	--	--	--	--	--	--	**49**	--	--	--	--	--	--	--	--	**4.5**	**2.9**	**1.4**	--	--	**680**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-0520	5/7/2020	**100**	<6	<6	--	--	--	--	--	--	**49**	--	--	--	--	--	--	--	--	**4.8**	--	--	--	--	**630**	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-1020	10/24/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**	**1.5**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-0421	4/16/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**	**0.9**	--	--	--	--	--
M-44D	Supplementary	Coconino	*DUP* CH-CCR-FD05-0421	4/16/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**	**1.5**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-1021	10/23/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.4 J**	**1.6**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-FD06-1021	10/23/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.5 J**	**1.8**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-0422	4/29/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	**1.1**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-1022	10/19/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**	<0.6	--	--	--	--	--
M-44D	Supplementary	Coconino	*DUP* CH-CCR-FD05-1022	10/19/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**	**0.9**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-0423	04/13/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**	**0.8**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-1023	11/21/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	**1.8**	--		--	--	--
M-44D	Supplementary	Coconino	CH-CCR-FD05-1023	11/21/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**	**1.4**	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-0424	05/02/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**	**1.1**	--	--	--	--	--
M-44D	Supplementary	Coconino	*DUP* CH-CCR-FD06-0424	05/02/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**	<0.75	--	--	--	--	--
M-44D	Supplementary	Coconino	CH-CCR-M44D-1024	11/11/2024	--	--	--	--	--	--	--	--	--	**46.1**	--	--	--	--	--	--	--	--	--	**2.7**	0.8	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-0913	9/17/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-0913_C29829-8	9/17/2013	**380**	<5.0	<5.0	--	--	--	--	--	--	**157**	--	--	<0.0050	--	--	--	--	--	**14.3**	--	--	--	--	**464**	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-1113	11/21/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-1113_C31100-6	11/21/2013	**380**	<5.0	<5.0	--	--	--	--	--	--	**162**	--	--	<0.0050	--	--	--	--	--	**14.3**	--	--	--	--	**620**	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-0314	3/26/2014	**430**	<5.0	<5.0	--	--	--	--	--	--	**152**	--	--	<0.005	--	--	--	--	--	**15**	--	--	--	--	**682**	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-0614	6/10/2014	**432**	<5.0	--	--	--	--	--	--	--	**159**	--	--	<0.01	<0.8	--	<0.8	--	--	**18.1**	--	--	--	--	**637**	--	--
M-45A	Supplementary	Alluvial	CH-M-45A-0615	6/16/2015	**384**	<5.0	<5.0	--	--	--	--	--	--	**157**	--	--	<0.005	<0.10	--	<0.50	--	--	**14.1**	--	--	--	--	**761**	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1216	12/21/2016	**260**	<6.0	<6.0	--	--	--	--	--	--	**140**	--	--	--	--	--	--	--	--	**12**	--	--	--	--	**570**	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1216	12/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45-0421	4/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45-1021	10/22/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**	<0.6	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-0422	4/26/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**0.7**	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1022	10/21/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.6	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-0423	04/15/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**0.9**	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1023	10/17/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.6**	<0.75	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-0424	04/18/2024	--	--	--	--	--	--	--	--	--	--	--	--			--				--	<0.42	<0.75	--	--	--	--	--
M-45A	Supplementary	Alluvial	CH-CCR-M45A-1024	11/04/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	**1.4**	--	--	--	--	--
M-46A	Supplementary	Alluvial	CCH-CCR-M46A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**1.0**	--	--	--	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46A-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46-0520	5/5/2020	**200**	<6	<6	--	--	**0.82**	**3.8**	**1.0**	**0.68**	**240**	**3.8**	**3.6 J**	--	--	<0.5 UJ	--	--	--	**21**	<0.4	<0.8	--	--	**2,700**	**3.2 J**	--
M-46A	Supplementary	Alluvial	CH-CCR-M46-1020	10/25/2020	--	--	--	--	--	**0.67**	**3.1 J**	**1.1**	**0.67**	--	**3.3**	**3.5**	--	--	<0.25	--	--	--	--	<0.4	<0.8	--	--	--	**3.4**	--
M-46A	Supplementary	Alluvial	CH-CCR-M46-0421	4/14/2021	--	--	--	--	--	**0.84**	**3.6**	**4.4**	**1.7**	**270**	**3.7**	**3.4**	--	--	<0.25	--	--	--	**22**	<0.4	<0.7	--	--	**3,100**	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46-1021	10/22/2021	--	--	--	--	--	**0.52**	**3.5**	**1.3**	**1.2**	--	**3.00**	**3.1**	--	--	<0.25	--	--	--	--	**0.8**	<0.6	--	--	--	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46A-0422	4/27/2022	**220**	<6	<6	**220**	<6	**0.66**	**3.8**	**1.6**	**0.74**	**240**	**2.6**	**2.7**	--	--	<0.25	--	--	--	**16**	<0.4	**1.4**	--	--	**2,900**	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46A-1022	10/21/2022	**220**	<6	<6	**220**	<6	**0.58 J**	**4.5**	**1**	**0.87**	**240**	**2.4**	**2.4**	--	--	<0.25	--	--	--	**13**	<0.4	<0.6	--	--	**2,900**	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46A-0423	04/15/2023	**240**	<6	<6	**240**	<6	**1.6**	**4.6**	**5.7**	**4.5**	**230**	**4.8**	**4.9**	--	--	<0.1	--	--	--	**18**	<0.4	**0.9**	--	--	**3,500**	--	--

Table C-3
Groundwater Sampling Results for the FAP Monitoring Wells - Additional Analyses

					Additional Analyses																													
				Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nickel	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	SiO2, Silica	Sodium	Total Organic Carbon	Uranium
				Filtered:	N	N	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				FAP GWPS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																														
M-46A	Supplementary	Alluvial	CH-CCR-M46A-1023	10/16/2023	**230**	<6	<6	**230**	<6	**1.1**	**3.8**	**5.3**	**1.9**	**200**	**4.1**	**3.9**	--	--	<0.1	--	--	--	**13**	**0.5**	**1.6**	--	--	**3,200**	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46A-0424	04/17/2024	**230**	<6	<6	**230**	<6	**1.6**	**3.7**	**7.4**	**6.4**	**180**	**4.2**	**4.2**			<0.1				**20**	<0.42	<0.75	--	--	**2,900**	--	--
M-46A	Supplementary	Alluvial	CH-CCR-M46A-1024	11/12/2024	**238**	--	--	--	--	**1.55**	<20	**6.35**	**5.69**	**170**	**4.04**	**4.72**	--	--	<0.2	--	--	--	**13.7**	**1.0**	<0.8	--	--	**2,900**	--	--
M-63A	Supplementary	Alluvial	7871	11/30/2015	**160**	<6.0	<6.0	--	--	--	--	--	--	**79**	--	--	--	--	--	--	--	--	**8.3**	<0.4	<0.7	--	**12**	**250**	--	--
M-63A	Supplementary	Alluvial	CH-M-63A-0316	3/10/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.2	<0.6	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-M-63A-0316	3/10/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-050516	5/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.8	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M100-816	8/24/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.4**	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M100-816	8/24/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-816	8/24/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**	<0.6	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-816	8/24/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-916	9/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.3	**0.8**	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-916	9/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-APP-M63A-1016	10/4/2016	--	--	--	--	--	--	--	--	--	**86**	--	--	--	<0.10	--	<0.10	<0.10	<0.50	--	--	--	--	--	**370**	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-217	2/20/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-41317	4/13/2017	**290**	<6.0	<6.0	--	--	--	--	--	--	**88**	--	--	--	--	--	--	--	--	**5.2**	<0.5	<0.6	--	--	**400**	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-41317	4/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-42617	4/26/2017	**290**	<6.0	<6.0	--	--	--	--	--	--	**88**	--	--	--	--	--	--	--	--	**5.4**	<0.4	**0.8**	--	--	**410**	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-42617	4/26/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-APP-M63A-52217	5/22/2017	--	--	--	--	--	--	--	--	--	**84**	--	--	--	**0.10**	--	<0.10	**0.10**	<0.50	--	--	--	--	--	**330**	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52217	5/22/2017	**290**	<6.0	<6.0	--	--	--	--	--	--	**86**	--	--	--	--	--	--	--	--	**5.6**	<0.5	<0.6	--	--	**330**	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52217	5/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52417	5/24/2017	**290**	<6.0	<6.0	--	--	--	--	--	--	**85**	--	--	--	--	--	--	--	--	**5.5**	<0.3	<0.6	--	--	**340**	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-52417	5/24/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-63017	6/30/2017	**290**	<6.0	<6.0	--	--	--	--	--	--	**84**	--	--	--	--	--	--	--	--	**5.7**	<0.5	<0.7	--	--	**280**	--	--
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD02-72817	7/28/2017	**300**	<6.0	<6.0	--	--	--	--	--	--	**92**	--	--	--	--	--	--	--	--	**6.3**	<0.4	**1.0**	--	--	**280**	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-72817	7/28/2017	**300**	<6.0	<6.0	--	--	--	--	--	--	**91**	--	--	--	--	--	--	--	--	**6.2**	<0.4	<0.7	--	--	**270**	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-90717	9/7/2017	**300**	<6.0	<6.0	--	--	--	--	--	--	**89**	--	--	--	--	--	--	--	--	**6.1**	<0.5	<0.7	--	--	**280**	--	--
M-63A	Supplementary	Alluvial	CH-APP-M63A-62419	6/24/2019	--	--	--	--	--	--	--	--	--	**77**	--	--	--	<0.10	<0.10	<0.10	<0.10	<0.50	--	--	--	--	--	**300**	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63-0421	4/15/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63-1021	10/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**	<0.6	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-0422	4/27/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--	--
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD05-0422	4/27/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**0.7**	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-SS09-0422	4/27/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-1022	10/21/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**	<0.6	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-0423	04/15/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.39	<0.58	--	--	--	--	--
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD05-0423	04/15/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.39	**1.00**	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-1023	10/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**	<0.72	--	--	--	--	--
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD06-1023	10/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**	<0.72	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-0424	04/17/2024	--	--	--	--	--	--	--	--	--	--	--	--			--				--	<0.41	<0.75	--		--	--	--
M-63A	Supplementary	Alluvial	*DUP* CH-CCR-FD05-0424	04/17/2024	--	--	--	--	--	--	--	--	--	--	--	--			--				--	<0.41	<0.75	--		--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-M63A-1024	10/21/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.5**	<0.8	--	--	--	--	--
M-63A	Supplementary	Alluvial	CH-CCR-FD05-1024	10/21/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**	**1.00**	--	--	--	--	--
W-125	Supplementary	Coconino	7794	12/2/2015	**170**	<6.0	<6.0	--	--	--	--	--	--	**51**	--	--	--	--	--	--	--	--	**3.7**	**2.8**	**2.6**	--	**12**	**500**	--	--
W-125	Supplementary	Coconino	CH-W-125-0316	3/9/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4**	**0.6**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-516	5/22/2016	**170**	<6.0	<6.0	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--	--	**3.5**	**1.3**	**1.3**	--	**11**	**460**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-816	8/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**	**3.1**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-916	9/23/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**	<0.7	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-217	2/20/2017	**170**	<6.0	<6.0	--	--	--	--	--	--	**49**	--	--	--	--	--	--	--	--	**3.7**	**1.7**	**1.3**	--	--	**490**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-41317	4/13/2017	**170**	<6.0	<6.0	--	--	--	--	--	--	**47**	--	--	--	--	--	--	--	--	**3.4**	**1.3**	**1.2**	--	--	**450**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-42617	4/26/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--	--	**3.6**	**1.3**	**2.2**	--	--	**480**	--	--
W-125	Supplementary	Coconino	CH-CCR-FD02-52217	5/22/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**51**	--	--	--	--	--	--	--	--	**3.7**	**1.3**	<0.6	--	--	**480**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-52217	5/22/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**50**	--	--	--	--	--	--	--	--	**3.6**	**1.0**	**1.7**	--	--	**470**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-52417	5/24/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**51**	--	--	--	--	--	--	--	--	**3.7**	**1.8**	**1.3**	--	--	**490**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-62917	6/29/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--	--	**3.4**	**1.1**	**1.5**	--	--	**440**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-72717	7/27/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**51**	--	--	--	--	--	--	--	--	**3.7**	**1.7**	**1.1**	--	--	**480**	--	--
W-125	Supplementary	Coconino	CH-CCR-FD02-90617	9/6/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**50**	--	--	--	--	--	--	--	--	**3.7**	<0.5	**1.2**	--	--	**470**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-90617	9/6/2017	**180**	<6.0	<6.0	--	--	--	--	--	--	**50**	--	--	--	--	--	--	--	--	**3.7**	**1.7**	**1.1**	--	--	**470**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-0520	5/6/2020	**160**	<6	<6	--	--	--	--	--	--	**51**	--	--	--	--	--	--	--	--	**4.3**	--	--	--	--	**450**	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-1020	10/24/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**	**1.4**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-0421	4/15/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**	**1.2**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-1021	10/23/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4 J**	**0.9 J**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-FD05-1021	10/23/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2 J**	**1.9 J**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-0422	4/28/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.5**	**2.1**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-1022	10/22/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**	**1.2**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-0423_A	04/17/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-0423	04/25/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**	**0.9**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-1023	10/17/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	**1.4**	--	--	--	--	--
W-125	Supplementary	Coconino	CH-CCR-W125-0424	04/18/2024	--	--	--	--	--	--	--	--	--	--	--	--			--				--	**1.4**	<0.92	--	--	--	--	--

Table C-3
Groundwater Sampling Results for the FAP Monitoring Wells - Additional Analyses

					Additional Analyses																											
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nickel	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	SiO2, Silica	Sodium	Total Organic Carbon	Uranium
Filtered:					N	N	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L
FAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																												
W-125	Supplementary	Coconino	CH-CCR-W125-1024	11/06/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**	**1.2**	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-010318	1/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W-126-125128	12/5/2018	**100**	<6.0	<6.0	--	--	--	--	--	--	**470**	--	--	--	--	--	--	--	--	**91**	<0.4	<0.6	--	**24 J**	**4,000**	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-51519	5/15/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-62419	6/24/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.10	<0.10	<0.10	<0.10	<0.50	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-71119	7/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-81919	8/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	*DUP* CH-APP-W126FD-111419	11/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-APP-W126-111419	11/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CCH-CCR-W126-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-112619	11/26/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-0520	5/5/2020	**95**	<6	<6	--	--	<0.5	**2.3**	<0.1	<0.1	**500**	**0.12**	**0.10**	--	--	<0.5	--	--	--	**87**	<0.4	<0.8	--	--	**4,200**	**2.3**	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-1020	10/25/2020	--	--	--	--	--	<0.5	**1.9**	**0.064**	**0.048**	--	**0.29**	**0.3**	--	--	<0.25	--	--	--	--	<0.4	<0.8	--	--	--	**1.9**	--
W-126	Supplementary	Moenkopi-Moqui	CH-CCR-W126-0421	4/15/2021	--	--	--	--	--	**0.20**	**1.9**	**0.15**	**0.10**	**490**	**0.16**	**0.15**	--	--	<0.25	--	--	--	**92**	<0.4	<0.7	--	--	**4,200**	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-DEV-W126R-0621	6/4/2021	**82 J**	<6 UJ	<6 UJ	**82 J**	<6 UJ	--	--	--	--	**410**	--	--	--	--	--	--	--	--	**49**	--	--	--	--	**4,500**	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-ABREP-W126R-0621	6/15/2021	**84**	<6	<6	**84**	<6	--	--	**0.17**	--	**420**	--	--	--	--	--	--	--	--	**47**	--	--	--	--	--	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0821	8/3/2021	--	--	--	--	--	**0.43**	**2.0**	**0.26**	**0.14**	--	**0.51**	**0.53**	--	<0.25	--	--	--	--	--	**0.4**	<0.6	--	--	--	--	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-1021	10/23/2021	--	--	--	--	--	**0.42**	**2.1**	**1.1**	**0.071 J**	--	**0.51**	**0.49**	--	--	<0.25	--	--	--	--	<0.4	<0.6	--	--	--	--	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0422	4/27/2022	**81**	<6	<6	**81**	<6	**0.45**	**2.2**	**0.1**	**0.051 J**	**470**	**0.54**	**0.53**	--	--	<0.25	--	--	--	**53**	<0.4	<0.6	--	--	**4,300**	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-126R-1022	10/21/2022	**78**	<6	<6	**78**	<6	**0.42**	**2.7**	**0.14**	**0.1**	**390**	**0.66**	**0.6**	--	--	<0.25	--	--	--	**46**	<0.4	<0.6	--	--	**3,800**	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0423	04/15/2023	**73**	<6	<6	**73**	<6	**0.36**	**2.5**	<0.1	<0.1	**400**	**0.65**	**0.68**	--	--	<0.1R	--	--	--	**59**	<0.56	**0.6**	--	--	**4,300**	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W-126R-1023	10/16/2023	**72**	<6	<6	**72**	<6	**0.59**	**2.1**	<0.1	<0.1	**340**	**0.55**	**0.56**	--	--	<0.1	--	--	--	**39**	<0.36	<0.75	--	--	**3,600**	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-0424	04/17/2024	**72**	<6	<6	**72**	<6	**0.53**	**2.0**	**0.32**	**0.11**	**420**	**0.74**	**0.67**			**0.10**				**48**	<0.7	<0.72	--	--	**4,500**	--	--
W-126R	Supplementary	Moenkopi-Moqui	CH-CCR-W126R-1024	10/31/2024	**83.8**	--	--	--	--	**0.684**	**2.6**	**0.0529**	**0.0624**	**453**	**0.97**	**0.935**	--	--	<0.2	--	--	--	**57.7**	**0.9**	<0.7	--	--	**4,170**	--	--
FAP	Supplementary	Surface Pond	CH-FAP-01052012	1/5/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.0	--	<2.0	<5.0	**1.7**	--	--	--	**--**	**--**	--	--	**0.0058**
FAP	Supplementary	Surface Pond	CH-FAP-1172012	11/7/2012	<6.0	<6.0	<6.0	<6.0	<6.0	--	--	--	--	**1,600**	--	--	--	<1.0	--	<1.0	<1.4	**0.43**	**140**	--	--	**--**	**--**	**7,900**	--	--
FAP	Supplementary	Surface Pond	CH-FAP-031313	3/13/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<6.7	--	<6.7	--	--	--	--	--	**--**	**--**	--	--	**0.0023**
FAP	Supplementary	Surface Pond	CH-FAP-031313_C26660-2	3/13/2013	**24.5**	<5.0	<5.0	**24.5**	--	--	--	--	--	**1,730**	--	--	--	--	--	--	<14	**1.8**	**171**	--	--	**--**	**--**	**6,840**	--	--
FAP	Supplementary	Surface Pond	CH-FAP-031313_C26660-2F	3/13/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0913	9/18/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	<0.8	--	--	--	--	--	**--**	**--**	--	--	**0.004**
FAP	Supplementary	Surface Pond	CH-FAP-0913_C29829-11	9/18/2013	**26**	<5.0	<5.0	**26**	--	--	--	--	--	**1,970**	--	--	--	--	--	--	--	**1.8**	**163**	--	--	**--**	**--**	**3,980**	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0913_C29829-11F	9/18/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0514	5/22/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	<0.8	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0514_C34218-5	5/22/2014	**20.2**	<5.0	--	**20.2**	--	--	--	--	--	**2,100**	--	--	--	--	--	--	<1.8	**0.48**	**154**	--	--	**--**	**--**	**8,500**	--	<0.01
FAP	Supplementary	Surface Pond	CH-FAP-1014	10/13/2014	**56.2**	--	--	**56.2**	--	--	--	--	--	**2,480**	--	--	--	<0.10	<0.20	<0.10	**3.2**	**3.2**	**165**	--	--	**--**	**--**	**7,730**	--	<0.01
FAP	Supplementary	Surface Pond	CH-FAP-0115	1/17/2015	**30.3**	<5.0	--	**30.3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-FAP-0515	5/4/2015	**10**	<5.0	--	**10**	--	--	--	--	--	**2,190**	--	--	--	<0.50	<1.0	<0.50	<1.2	**0.42**	**152**	--	--	**--**	**--**	**7,210**	--	<0.05
FAP	Supplementary	Surface Pond	CH-APP-FAP-0615	6/15/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-070516	7/5/2016	--	--	--	--	--	<2.5	--	--	--	--	--	--	--	<0.10	--	<0.20	**9.6**	**9.6**	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-Flyash-1016	10/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	--	<0.50	--	**9.4**	--	--	--	**--**	**--**	--	--	**0.0046**
FAP	Supplementary	Surface Pond	CH-APP-FPF-1116	11/17/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1216	12/21/2016	<6.0	<6.0	<6.0	<6.0	<6.0	--	--	--	--	**2,500**	--	--	--	--	--	--	--	--	**190**	--	--	**--**	**--**	**8,600**	--	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1216	12/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-CCR-M100-1216	12/21/2016	<6.0	<6.0	<6.0	<6.0	<6.0	--	--	--	--	**2,500**	--	--	--	--	--	--	--	--	**190**	--	--	**--**	**--**	**8,500**	--	--
FAP	Supplementary	Surface Pond	CH-CCR-M100-1216	12/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-60717	6/7/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	--	**9.8**	**9.8**	--	--	--	**--**	**--**	--	--	**0.0028**
FAP	Supplementary	Surface Pond	CH-APP-FAP-60717	6/7/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	**0.0024**
FAP	Supplementary	Surface Pond	CH-APP-FAP-70217	7/2/2017	--	--	--	--	--	--	--	--	--	**3,600**	--	--	--	--	--	--	--	--	**220**	--	--	**--**	**--**	**14,000**	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-10617	10/6/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	<0.50	<0.50	**11**	**11**	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-10617	10/6/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FFAP-10617	10/6/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-33019	3/30/2019	**36**	<6.0	<6.0	**36**	<6.0	--	--	--	--	**4,900**	--	--	--	--	--	--	--	--	**340**	--	--	**--**	**--**	**17,000**	--	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-33019	3/30/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	--
FAP	Supplementary	Surface Pond	CH-APP-FAP-42919	4/29/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**--**	**--**	--	--	**0.0021**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1021	10/31/2021	**240**	<6	<6	**240**	<6	**0.14**	**74**	**3.3**	**3.1**	**12,000**	**28**	**25**	--	**--**	<0.25	**--**	**--**	**--**	**520**	**14.1**	<3.6	**--**	**--**	**32,000**	**76**	**--**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-0422	4/21/2022	**230**	<6	<6	**230**	<6	**0.041 J**	**140 J**	**1.2**	**1.1**	**12,000**	**27**	**26**	--	--	<2.5	--	--	--	**650**	<0.4	<0.6	--	--	**33,000**	**86**	--
FAP	Supplementary	Surface Pond	CH-CCR-SS11-0422	4/21/2022	**217**	<20	<20	**217**	--	<4	**79.6**	<15	<15	**11,300**	**29.6**	**25.2**	**--**	**--**	<0.1	--	--	--	**621**	--	--	**--**	**--**	**34,300**	**87.5 J**	**--**
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1022	10/26/2022	**260**	<6	<6	**260**	<6	**0.22**	**62**	<1	**0.68**	**8,200**	**23**	**22**	--	--	<0.25	--	--	--	**410**	**1.7**	<0.6	--	--	**24,000**	**69**	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-0423	04/25/2023	**260**	<6	<6	**260**	<6	**0.077**	**62**	**1.7**	**1.2**	**9,500**	**28**	**29**	--	--	<2	--	--	--	**680**	<0.43	<0.58	--	--	**26,000**	**64**	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1023	10/13/2023	**84**	<6	<6	**84**	<6	**0.15**	**140**	**1.7**	**0.86**	**19,000**	**48**	**50**	--	--	--	--	--	--	**910**	**90**	**92**	--	--	**51,000**	**130**	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-0424	05/02/2024	**720**	<6	<6	**720**	<6	**2.4**	**110**	<10	<10	**14,000**	**37 J**	**59 J**	--	--	<0.25 UJ	--	--	--	**630**	<2.4	<3.6	--	--	**35,000**	**110**	--
FAP	Supplementary	Surface Pond	CH-CCR-FAP-1024	11/13/2024	**964**	<20	--	**--**	--	<1	**156**	<0.5	<0.5	**19,600**	**50.7**	**50.1**	--	--	<1	--	--	--	**1,050**	**4.6**	<3.6	<0.025	--	**56,000**	**182**	--
Bud	Supplementary	Seepage	Bud Hunt	10/8/2012	**168**	<5.0	<5.0	**168**	--	**--**	--	--	**--**	**44.5**	**--**	**--**	--	<0.4	--	<0.4	--	--	<10	**--**	--	--	--	**231**	**--**	--
Bud	Supplementary	Seepage	CH-BUD-0613	6/5/2013	--	--	--	--	--	**--**	--	--	**--**	--	**--**	**--**	--	<0.8	--	<0.8	--	--	--	**--**	--	--	--	--	**--**	--
Bud	Supplementary	Seepage	CH-BUD-0613_C28117-4	6/5/2013	**168**	<5.0	<5.0	**168**	--	**--**	--	--	**--**	**44.7**	**--**	**--**	--	--	--	--	--	--	<10	**--**	--	--	--	**198**	**--**	--
Bud	Supplementary	Seepage	CH-BUD-0614	6/11/2014	**181**	<5.0	--	**181**	--	**--**	**--**	--	**--**	**40**	**--**	**--**	--	<0.4	--	<0.4	--	--	<10	**--**	--	--	--	**214**	**--**	--
Bud	Supplementary	Seepage	CH-BUD-0615	6/17/2015	**333**	<5.0	<5.0	**333**	--	**--**	**--**	--	**--**	**43.2**	**--**	**--**	--	**0.12**	--	**0.15**	--	--	<10	**--**	--	--	--	**224**	**--**	--
Bud	Supplementary	Seepage	CH-APP-BudHunt-1016	10/5/2016	--	--	--	--	--	**--**	**--**	--	**--**	**41**	**--**	**--**	--	<0.10	--	<0.10	<0.10	<0.50	--	**--**	--	--	--	**230**	**--**	--

Table C-3
Groundwater Sampling Results for the FAP Monitoring Wells - Additional Analyses

					Additional Analyses																													
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nickel	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	SiO2, Silica	Sodium	Total Organic Carbon	Uranium
Filtered:					N	N	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																															
Bud	Supplementary	Seepage	CH-APP-BudHunt-60617	6/6/2017	--	--	--	--	--	--	--	--	--	**42**	--	--	--	<0.10	<0.10	<0.10	<0.10	<0.50	--	--	--	--	--	**210**	--	--
Bud	Supplementary	Seepage	CH-CCR-BudHunt-1022	10/21/2022	**170**	<6	<6	**170**	<6	<0.05	**2.2**	<0.1	<0.1	**43**	<0.01	<0.01	--	--	<0.25	--	--	--	**3.5**	<0.4	<0.6	--	--	**210**	--	--
Bud	Supplementary	Seepage	CH-CCR-BudHunt-0423	04/19/2023	**170**	<6	<6	**170**	<6	<0.05	**0.91**	<0.1	<0.1	**44**	<0.01	<0.01	--	--	<0.1	--	--	--	**3.4**	<0.49	<0.6	--	--	**240**	--	--
Bud	Supplementary	Seepage	CH-CCR-BudHunt-1023	10/17/2023	**170**	<6	<6	**170**	<6	<0.05	<0.5	**0.13**	<0.1	**36**	<0.01	<0.01	--	--	<0.1	--	--	--	**2.8**	<0.36	<0.75	--	--	**170**	--	--
Bud	Supplementary	Seepage	CH-CCR-BudHunt-0424	04/23/2024	**170**	<6	<6	**170**	<6	<0.05	0.81	<0.1	<0.1	**48 J**	<0.01	<0.01			<0.1				**3.8 J**	<0.49	<0.92	--	--	**200**	--	--
Bud	Supplementary	Seepage	CH-CCR-BUDHUNT-1024	10/29/2024	**177**	--	--	--	--	<0.1	**1.13**	<0.05	<0.05	**39.1**	<0.005	<0.005	--	--	<0.2	--	--	--	**3.66**	<0.5	<0.7	--	--	**219**	--	--

Table C-3
Groundwater Sampling Results for the FAP Monitoring Wells - Additional Analyses

					Additional Analyses																												
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nickel	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	SiO2, Silica	Sodium	Total Organic Carbon	Uranium
Filtered:					N	N	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																													
Geronimo C	Supplementary	Seepage	CH-CCR-GeronC-0421	4/15/2021	**81**	<6	<6	--	--	--	--	--	--	**750**	--	--	--	--	--	--	--	--	**73**	<0.4	<0.8	--	--	**5,500**	**3.3**	--
Geronimo C	Supplementary	Seepage	CH-CCR-GeronimoC-0422	4/20/2022	**68**	<6	<6	**68**	<6	<0.05	**2.9**	**0.53**	**0.27**	**600**	**0.25**	**0.25**	--	--	**0.50**	--	--	--	**48**	<0.3	<0.6	--	--	**4,600**	**2.9**	--
Geronimo C	Supplementary	Seepage	CH-CCR-GeronimoC-0423	04/25/2023	**66**	<6	<6	**66**	<6	<0.05	**2.2**	**0.24**	**0.16**	**530**	**0.12**	**0.13**	--	--	**0.77**	--	--	--	**50**	--	--	--	--	**4,000**	**2.2**	--
Geronimo C	Supplementary	Seepage	CH-CCR-GeronimoC-1023	10/23/2023	**72**	<6	<6	**72**	<6	<0.05	**2.2**	**0.27**	<0.1	**520**	**0.42**	**0.33**	--	--	**0.29**	--	--	--	**51**	--	--	--	--	**4,600**	**2.3**	--
Geronimo C	Supplementary	Seepage	CH-CCR-Geronimo-0424	05/02/2024	**69**	<6	<6	**69**	<6	<0.05	**2.6 J**	**0.79**	**0.23**	**590**	**0.17**	**0.15**	--	--	**0.37**	--	--	--	**65**	--	--	--	--	**7,100**	**2.4**	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronD-0421	4/15/2021	**83**	<6	<6	--	--	--	--	--	--	**580**	--	--	--	--	--	--	--	--	**58**	<0.4	<0.8	--	--	**4,900**	**3.1**	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-0422	4/20/2022	**80**	<6	<6	**80**	<6	<0.05	**3.2**	**0.62**	**0.40**	**560**	**0.15**	**0.093**	--	--	<0.5	--	--	--	**47**	<0.3	<0.6	--	--	**4,600**	**3.1**	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-1022	10/27/2022	**89**	<6	<6	**89**	<6	<0.05	**4.1**	**0.22**	<0.1	**520**	**0.028**	<0.01	--	--	**0.29**	--	--	--	**41**	--	--	--	--	**4,300**	**3.6**	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-0423	04/25/2023	**76**	<6	<6	**76**	<6	<0.05	**2.7**	**0.14**	<0.1	**530**	<0.01	<0.01	--	--	**0.18**	--	--	--	**55**	--	--	--	--	**3,900**	**2.5**	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-1023	10/23/2023	**95**	<6	<6	**95**	<6	<0.05	**3.2**	<0.1	<0.1	**610**	<0.01	<0.01	--	--	**0.25**	--	--	--	**64**	--	--	--	--	**5,100**	**2.7**	--
Geronimo D	Supplementary	Seepage	CH-CCR-GeronimoD-0424	05/02/2024	**110**	<6	<6	**110**	<6	<0.05	**4.5**	**3.2**	**0.15**	**720**	**0.035**	<0.01	--	--	**0.64**	--	--	--	**60**	--	--	--	--	**7,200**	**4.7**	--
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0421	4/15/2021	**64**	<6	<6	--	--	--	--	--	--	**250**	--	--	--	--	--	--	--	--	**33**	<0.4	<0.8	--	--	**3,000**	**1.7**	--
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0422	4/20/2022	**56**	<6	<6	**56**	<6	**0.54**	**2.3**	<0.12	<0.1	**250**	**0.95**	**0.93**	--	--	<0.25	--	--	--	**28**	<0.3	<0.6	--	--	**3,000**	**1.9**	--
Hunt	Supplementary	Seepage	CH-CCR-HuntB-1022	10/27/2022	**54**	<6	<6	**54**	<6	**0.9**	**2.7 J**	**0.28**	<0.1	**240**	**1.3**	**1.3**	--	--	<0.25	--	--	--	**26**	**0.6**	**0.7**	--	--	**3,200**	**1.9 J**	--
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0423	04/25/2023	**71**	<6	<6	**71**	<6	**1.9**	**2 J**	<0.5 UJ	**0.9 J**	**240**	**6.7**	**7.7**	--	--	<0.1	--	--	--	**27**	**0.7**	**0.6**	--	--	**3,500**	**2.1**	--
Hunt	Supplementary	Seepage	CH-CCR-HuntB-1023	10/23/2023	**51**	<6	<6	**51**	<6	**0.46**	**1.8**	<0.1	<0.1	**250**	**1.1**	**1.1**	--	--	**0.19**	--	--	--	**31**	<0.41	<0.73	--	--	**3,100**	**1.6**	--
Hunt	Supplementary	Seepage	CH-CCR-HuntB-0424	05/02/2024	**52**	<6	<6	**52**	<6	**0.48**	**2.0 J**	**0.13**	<0.1	**300**	**1.3**	**1.3**	--	--	**0.16**	--	--	--	<50	<0.45	<0.75	--	--	**3,900**	**2.0**	--
Hunt	Supplementary	Seepage	CH-CCR-HuntB-1024	11/12/2024	**54.6**	<20	--	--	--	**0.663**	<20	<0.05	<0.05	**282**	**1.44**	**1.6**	--	--	**0.268**	--	--	--	**33.2**	<0.4	<0.8	--	--	**3,490**	**2.2**	--

Notes:

GWPS exceedences are shown in red text.

Duplicate sample dates under the same location are either field duplicates or are instances of samples with multiple field/lab sample IDs on the same date.

Abbreviations and Data Qualifiers:

< = less than

BTV = Background Threshold Value

CCR = Coal Combustion Residual

degrees C = degrees Celsius

FAP = Fly Ash Pond

GWPS = Groundwater Protection Standard

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

mg/L = milligrams per liter

pCi/L = Picocuries per liter

R = rejected

su = standard units

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
M-64A	Background	Alluvial	CH-CCR-M100-217	2/20/2017	**1.1**	**--**	**570**	**--**	**4,000**	<8.0	**7.4**	**4,100**	**11,000**
M-64A	Background	Alluvial	CH-CCR-M64A-217	2/20/2017	**1.2**	**--**	**520**	**--**	**4,500**	<0.80	**7.4**	**4,400**	**10,000**
M-64A	Background	Alluvial	CH-CCR-FD02-41217	4/12/2017	**1.2**	**--**	**550**	**--**	**4,200**	<2.0	**7.7**	**4,300**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64A-41217	4/12/2017	**1.2**	**--**	**500**	**--**	**4,200**	<0.80	**7.6**	**4,200**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64A-42517	4/25/2017	**1.3**	**--**	**490**	**--**	**4,100**	<0.80	**7.5**	**4,300**	**11,000**
M-64A	Background	Alluvial	CH-CCR-M64A-51817	5/18/2017	**1.3**	**--**	**510**	**--**	**4,400**	<0.80	**7.6**	**4,400**	**12,000**
M-64A	Background	Alluvial	CH-CCR-FD01-52417	5/24/2017	**1.2**	**--**	**520**	**--**	**4,000**	<0.80	**7.4**	**4,100**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-52417	5/24/2017	**1.3**	**--**	**520**	**--**	**4,200**	<0.80	**7.4**	**4,400**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-63017	6/30/2017	**1.2**	**--**	**600**	**--**	**5,100**	<0.80	**7.3**	**4,700**	**13,000**
M-64A	Background	Alluvial	CH-CCR-FD01-72717	7/27/2017	**1.3**	**--**	**620**	**--**	**4,700**	<0.80	**7.4**	**4,600**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64A-72717	7/27/2017	**1.3**	**--**	**640**	**--**	**4,900**	<0.80	**7.4**	**4,800**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64A-90717	9/7/2017	**1.2**	**--**	**620**	**--**	**4,700**	<0.80	**7.3**	**4,300**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-120817	12/8/2017	**1.2**	**--**	**500**	**--**	**3,500**	<0.80	**7.4**	**4,400**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-21518	2/15/2018	--	--	--	--	--	<0.80	--	--	--
M-64A	Background	Alluvial	CH-CCR-M-64A-51918	5/19/2018	**1.4**	--	**460**	--	**4,700**	<0.80	**7.3**	**4,600**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M-64A-102218	10/22/2018	**1.3**	**--**	**510**	**--**	**3,900**	<0.80	**7.4**	**3,700**	**13,000**
M-64A	Background	Alluvial	*DUP* CH-CCR-FD-01-102218	10/22/2018	**1.3**	**--**	**500**	**--**	**4,100**	<2.0	**7.3**	**4,000**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-21319	2/13/2019	--	--	--	--	--	<0.80	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-41119	4/11/2019	**1.3**	**--**	**500**	**--**	**4,400**	<0.80	**7.3 J**	**4,300**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-41619	4/16/2019	--	--	--	--	--	<0.80	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-8119	8/1/2019	**1.3**	**--**	**450**	**--**	**4,200**	<0.8	**7.4 J**	**4,300**	**12,000**
M-64A	Background	Alluvial	*DUP* CH-CCR-FD01-8119	8/1/2019	**1.3**	**--**	**450**	**--**	**4,300**	<0.8	**7.4 J**	**4,300**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-102419	10/24/2019	**1.2**	**--**	**460**	**--**	**8,400**	<0.80	**7.5 J**	**8,600**	**13,000**
M-64A	Background	Alluvial	CH-CCR-M64-0520	5/6/2020	**1.2**	**--**	**520**	**--**	**3,900**	<0.8	**7.3 J**	**3,900**	**12,000**
M-64A	Background	Alluvial	*DUP* CH-CCR-FD05-0520	5/6/2020	**1.3**	**--**	**510**	**--**	**4,100**	<0.8	**7.6 J**	**4,100**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64-1020	10/24/2020	**1.2**	**--**	**480**	**--**	**4,500**	**0.28**	**7.3 J**	**4,400**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64-0421	4/15/2021	**1.2**	**--**	**540**	**--**	**4,300**	**0.21 J**	**7.5 J**	**4,400**	**6,600**
M-64A	Background	Alluvial	CH-CCR-M64-1021	10/22/2021	**1.0**	**--**	**540**	**--**	**4,400**	**0.38 J**	**7.4 J**	**3,900**	**11,000 J**
M-64A	Background	Alluvial	CH-CCR-M64A-0422	4/26/2022	**1.0**	**--**	**590**	**--**	**4,300**	**0.34 J**	**7.3 J**	**3,800**	**14,000**
M-64A	Background	Alluvial	CH-CCR-M64A-1022	10/22/2022	**1.1**	--	**580**	--	**4,400**	<0.8	**7.3 J**	**4,000**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-0423	04/17/2023	**1.1**	**--**	**640**	**--**	**4,200**	<10	**6.9 J**	**3,700**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-1023	10/11/2023	**0.91**	**--**	**570**	**--**	**4,100**	<0.4	**7.4 J**	**3,600**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-0424	04/18/2024	**1.0**	**--**	**630**	**--**	**3,800**	<0.4	**7.5 J**	**3,300**	**12,000**
M-64A	Background	Alluvial	CH-CCR-M64A-0524	05/28/2024	**--**	**--**	**--**	**--**	**--**	--	**--**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-MW64A-1024	10/30/2024	**1.0**	**--**	**556**	**--**	**4,340**	**0.798 J**	**7.51 J**	**3,470**	**12,200**
M-52A	Downgradient	Alluvial/Moqui	7879	12/1/2015	**3.9**	**--**	**790**	**--**	**3,600**	**0.53**	**6.99**	**3,000**	**9,600**
M-52A	Downgradient	Alluvial/Moqui	CH-M-52A-0316	3/9/2016	**3.4**	**--**	**780**	**--**	**3,800**	<2.0	**7.01**	**2,700**	**10,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-516	5/10/2016	**3.4**	**--**	**910**	**--**	**5,100**	<2.0	**--**	**2,400**	**12,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-816	8/26/2016	**3.3**	**--**	**890**	**--**	**4,000**	**0.97**	**6.8**	**2,600**	**11,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-916	9/22/2016	**3.2**	**--**	**810**	**--**	**3,700**	**0.89**	**7.2**	**2,700**	**11,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M101-217	2/21/2017	**3.7**	**--**	**810**	**--**	**3,900**	**0.98**	**7.4**	**2,900**	**10,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-217	2/21/2017	**3.8**	**--**	**850**	**--**	**3,700**	**0.98**	**7.2**	**2,600**	**9,700**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-41117	4/11/2017	**3.6**	**--**	**850**	**--**	**4,600**	**0.80**	**7.5**	**2,800**	**11,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-42517	4/25/2017	**3.6**	**--**	**810**	**--**	**4,100**	**0.99**	**7.0**	**2,700**	**11,000**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-51817	5/18/2017	**3.7**	--	**880**	--	**4,400**	**0.86**	**7.3**	**2,900**	**10,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-52417	5/24/2017	**3.6**	--	**850**	--	**4,300**	**0.96**	**7.2**	**2,800**	**10,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-63017	6/30/2017	**3.3**	--	**790**	--	**4,000**	**1.0**	**7.0**	**3,100**	**9,800**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-72817	7/28/2017	**3.1**	--	**780**	--	**3,500**	**1.0**	**7.0**	**3,100**	**9,200**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-90717	9/7/2017	**3.2**	--	**790**	--	**3,200**	**0.90**	**7.1**	**2,900**	**9,100**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-120717	12/7/2017	**3.1**	--	**820**	--	**3,600**	**0.84**	**7.1**	**2,700**	**9,700**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-21518	2/15/2018	--	--	--	--	--	**1.1**	--	--	--
M-52A	Downgradient	Alluvial/Moqui	--	5/20/2018	**3.7**	--	**850**	--	**4,500**	**1.2**	**6.9**	**2,800**	**11,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-6718	6/7/2018	**3.5**	--	**810**	--	**4,600**	**0.99**	**6.8**	**2,900**	**11,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M-52A-102418	10/24/2018	**3.5**	--	**840**	--	**3,900**	**0.89**	**7.0**	**2,700**	**10,000**
M-52A	Downgradient	Alluvial/Moqui	CH-M-52A-102418	10/24/2018	--	--	--	--	--	--	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-12818	12/8/2018	**4.3**	--	**920**	--	**4,900**	**1.0 J,U J**	**6.8 J**	**2,700**	**11,000**
M-52A	Downgradient	Alluvial/Moqui	*DUP* CH-CCR-FD01-21519	2/15/2019	--	--	--	--	--	<0.80	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-21519	2/15/2019	--	--	--	--	--	**0.93**	--	--	--
M-52A	Downgradient	Alluvial/Moqui	*DUP* CH-CCR-FD01-41619	4/16/2019	--	--	--	--	--	<0.80	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-41619	4/16/2019	--	--	--	--	--	**1.1**	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-8119	8/1/2019	**3.5**	--	**880**	--	**5,000**	**1.0**	**6.9 J**	**2,800**	**12,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-102419	10/24/2019	**3.2**	--	**760**	--	**3,400**	**0.91**	**7.0 J**	**2,900**	**9,300**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-0420	4/19/2020	**4.1**	--	**700**	--	**4,300**	**0.88**	**7.2 J**	**3,400**	**11,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-1020	10/22/2020	**2.9**	--	**660**	--	**2,500**	**1.5**	**7.4 J**	**3,000**	**7,700**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-0421	4/17/2021	**3.5**	--	**780**	--	**3,600**	**1.5**	**6.9 J**	**3,000**	**9,500**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-1021	10/29/2021	**3.0**	--	**650**	--	**4,200**	**1.3**	**7.3 J**	**5,800**	**7,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-0522	05/04/2022	**3.9**	--	**760**	--	**4,100**	**1.1**	**7.1 J**	**3,100**	**10,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-1022	10/24/2022	**3.6**	--	**750**	--	**3,200**	**1.5**	**7.1 J**	**3,100**	**8,800**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-MW52A-1022	10/24/2022	--	--	--	--	--	--	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-0423	04/19/2023	**4.6**	--	**830**	--	**3,400**	<4	**6.9 J**	**2,600**	**11,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-1023	10/11/2023	**3.7**	--	**650**	--	**2,600**	**1.7**	**7.3 J**	**2,900**	**8,200**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-0424	04/23/2024	**4.8 J**	--	**860 J**	--	**3,900**	**1.4**	**7.0 J**	**2,900**	**11,000**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-1024	10/28/2024	**3.55**	--	**565**	--	**2,330 J**	**1.53 J**	**7.44 J**	**2,900 J**	**7,740 J**
M-53A	Downgradient	Alluvial	7878	12/1/2015	**2.9**	--	**740**	--	**2,600**	**0.87**	**7.57**	**2,900**	**8,100**
M-53A	Downgradient	Alluvial	CH-M-53A-0316	3/9/2016	**2.4**	--	**770**	--	**2,500**	**0.94**	**7.44**	**2,600**	**7,400**
M-53A	Downgradient	Alluvial	CH-CCR-DUP1-516	5/10/2016	**2.4**	--	**750**	--	**2,400**	<2.0	--	**2,600**	**7,800**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-516	5/10/2016	**2.4**	--	**750**	--	**2,400**	<2.0	--	**2,500**	**7,800**
M-53A	Downgradient	Alluvial	CH-CCR-M101-816	8/26/2016	**3.1**	--	**660**	--	**2,400**	**2.3**	**7.4**	**3,000**	**8,100**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-816	8/26/2016	**3.0**	--	**660**	--	**2,400**	**2.3**	**7.4**	**3,000**	**8,000**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-916	9/22/2016	**3.0**	--	**640**	--	**2,500**	**0.98**	**7.6**	**3,000**	**8,300**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-217	2/21/2017	**3.1**	--	**660**	--	**2,300**	**2.0**	**7.5**	**2,900**	**7,600**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-41217	4/12/2017	**3.0**	--	**710**	--	**2,800**	**1.3**	**7.5**	**2,700**	**8,100**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-42517	4/25/2017	**2.6**	--	**740**	--	**2,500**	**1.3**	**7.4**	**2,700**	**7,900**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-51817	5/18/2017	**3.1**	--	**640**	--	**2,400**	**2.2**	**7.7**	**3,200**	**8,100**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-52417	5/24/2017	**3.3**	--	**660**	--	**2,300**	**2.4**	**7.6**	**3,100**	**7,600**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-70117	7/1/2017	**3.1**	--	**600**	--	**2,500**	**2.6**	**7.4**	**3,300**	**7,700**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-72817	7/28/2017	**3.3**	--	**670**	--	**2,500**	**2.4**	**7.5**	**3,300**	**7,900**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-90717	9/7/2017	**3.3**	--	**650**	--	**2,400**	**2.3**	**7.5**	**3,100**	**7,900**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
M-53A	Downgradient	Alluvial	CH-CCR-M53A-120717	12/7/2017	**3.2**	--	**630**	--	**2,400**	**2.3**	**7.6**	**3,000**	**7,900**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-21518	2/15/2018	--	--	--	--	--	**1.4**	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-FD01-52018	5/20/2018	**3.2**	--	**600**	--	**2,300**	**2.6**	**7.4**	**3,100**	**7,900**
M-53A	Downgradient	Alluvial	CH-CCR-M-53A-52018	5/20/2018	**3.3**	--	**620**	--	**2,400**	**2.4**	**7.4**	**3,400**	**7,800**
M-53A	Downgradient	Alluvial	CH-CCR-M-53A-102618	10/26/2018	**3.2**	--	**620**	--	**2,200**	**2.1**	**7.5**	**2,900**	**7,500**
M-53A	Downgradient	Alluvial	CH-M-53A-102618	10/26/2018	--	--	--	--	--	--	--	--	--
M-53A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-12718	12/7/2018	**3.3**	--	**600**	--	**2,300**	**2.3 J,U J**	**7.4 J**	**3,100**	**8,000**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-12718	12/7/2018	**3.4**	--	**620**	--	**2,300**	**2.3 J,U J**	**7.4 J**	**3,000**	**7,600**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-21519	2/15/2019	--	--	--	--	--	**1.2**	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-41719	4/17/2019	--	--	--	--	--	**2.1**	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-8119	8/1/2019	**3.2**	--	**590**	--	**2,200**	**2.3**	**7.5 J**	**2,900**	**7,800**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-102319	10/23/2019	**3.3**	--	**590**	--	**2,200 J**	**2.2 J**	**7.5 J**	**2,900 J**	**7,900 J**
M-53A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-0420	4/19/2020	**3.7**	--	**620**	--	**2,300**	**2.1**	**7.4 J**	**3,000**	**7,800**
M-53A	Downgradient	Alluvial	CH-CCR-M53-0420	4/19/2020	**3.7**	--	**610**	--	**2,400**	**2.1**	**7.5 J**	**3,100**	**8,200**
M-53A	Downgradient	Alluvial	CH-CCR-M53-1020	10/22/2020	**3.6**	--	**630**	--	**2,400**	**2.5**	**7.5 J**	**3,000**	**7,500**
M-53A	Downgradient	Alluvial	CH-CCR-M53-0421	4/17/2021	**3.2**	--	**670**	--	**2,400**	**2.1**	**7.3 J**	**3,100**	**7,800**
M-53A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-0421	4/17/2021	**3.2**	--	**680**	--	**2,200**	**2.1**	**7.3 J**	**2,900**	**7,500**
M-53A	Downgradient	Alluvial	CH-CCR-M53-1021	10/28/2021	**3.6**	--	**620**	--	**3,700**	**2.1**	**7.5 J**	**6,000**	**7,000**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-0522	05/04/2022	**3.3**	--	**670**	--	**2,300**	**2.1**	**7.5 J**	**3,000**	**7,100**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-1022	10/23/2022	**4.2**	--	**690**	--	**2,200**	**2.1**	**7.4 J**	**3,100**	**7,900**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-0423	04/19/2023	**4.1**	--	**680**	--	**2,200**	**2.4**	**7.4 J**	**3,100**	**7,700**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-1023	10/19/2023	**3.8**	--	**580**	--	**2,100**	**2.4**	**7.5 J**	**2,900**	**7,800**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-0424	04/23/2024	**4.3 J**	--	**690 J**	--	**2,000**	**2.4**	**7.5 J**	**2,800**	**8,000**
M-53A	Downgradient	Alluvial	CH-CCR-M53A-1024	10/24/2024	**4.12**	--	**509**	--	**2,090**	**2.42**	**7.66 J**	**2,910**	**9,300**
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-M71-1021	10/30/2021	**3.4**	--	**690**	--	**2,500**	**3.0**	**7.6 J**	**3,900**	**7,300**
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-M71A-0522	5/10/2022	**3.6**	--	**660**	--	**7,900**	**3.3**	**7.7 J**	**7,000**	**7,700**
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-1022	10/24/2022	**3.7**	--	**730**	--	**2,100**	**2.7**	**7.5 J**	**3,100**	**8,500**
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-0423	04/19/2023	**3.9**	--	**750**	--	**2,100**	**3.1**	**7.7 J**	**3,000**	**7,400**
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-1023	10/18/2023	**3.5**	--	**630**	--	**870**	**3.4**	**7.6 J**	**1,200**	**7,800**
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-0424	05/01/2024	**3.6**	--	**680**	--	**2,000**	**2.7**	**7.6 J**	**2,800**	**7,400**
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-1024	10/29/2024	**3.76**	--	**554**	--	**2,130**	**3.36**	**7.60 J**	**2,990**	**7,460**
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-M72-1021	10/30/2021	**0.50**	--	**8,200**	--	**34,000**	**0.098 J**	**7.1 J**	**2,200**	**48,000**
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-M72M-0522	5/10/2022	**0.47**	--	**8,200**	--	**36,000**	**1.3**	**7.1 J**	**3,500**	**58,000**
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-0522re	5/27/2022	<0.5	--	**7,900**	--	**38,000**	**1.6**	**7.0 J**	**1,600**	**41,000**
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-SS05-0522	5/27/2022	<5	--	**8,260**	--	**36,900**	**0.29 J**	**7.0 J**	**975 J**	**67,500 J**
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-1022	10/24/2022	**0.28**	--	**8,400**	--	**39,000**	<0.8	**7.0 J**	**1,200**	**62,000**
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-0423	04/19/2023	**0.33**	--	**8,500**	--	**37,000**	<40	**7.1 J**	**1,200**	**74,000**
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-1023	10/18/2023	<0.5	--	**8,200**	--	**35,000**	<0.8	**7.6 J**	**1,800**	**61,000**
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-0424	05/01/2024	**0.40**	--	**9,400 J**	--	**38,000**	<0.4	**7.5 J**	**1,100**	**46,000**
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-1024	10/29/2024	<0.75	--	**7,790**	--	**32,500**	<0.38	**7.89 J**	**1,150**	**82,300**
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-M73-1021	10/30/2021	**4.5**	--	**880**	--	**4,200**	**3.7**	**7.3 J**	**4,100**	**9,900**
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-M73A-0522	5/11/2022	**5.3**	--	**610**	--	**2,400**	**4.1**	**7.5 J**	**3,600**	**9,300**
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-1022	10/24/2022	**5.0**	--	**790**	--	**3,300**	**3.4**	**7.2 J**	**3,500**	**10,000**
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-0423	04/20/2023	**4.7**	--	**600**	--	**2,200**	**3.9**	**7.3 J**	**3,300**	**8,300**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-1023	10/18/2023	**5.2**	--	**690**	--	**2,600**	**4.2**	**7.2 J**	**3,300**	**8,900**
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-0424	04/24/2024	**4.1 J**	--	**650 J**	--	**2,400**	**3.4**	**7.3 J**	**3,000**	**8,200**
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-1024	10/29/2024	**4.25**	--	**532**	--	**2,070**	**4.19**	**7.40 J**	**3,110**	**7,440**
MW-74M	Downgradient	Alluvial/Moqui	CH-DEV-MW74M-0921	9/29/2021	**1.8**	**--**	**740**	**--**	**2,200**	**0.86**	--	**2,800**	**7,000 J**
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-M74-1021	10/30/2021	**1.8**	**--**	**710**	**--**	**2,200**	**0.85**	**7.4 J**	**2,800**	**6,600**
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-M74M-0522	5/11/2022	**2.0**	--	**750**	--	**2,100**	**1.2**	**7.7 J**	**2,600**	**7,000**
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-1022	10/25/2022	**2.1**	--	**760**	--	**2,300**	**1.0**	**7.4 J**	**2,700**	**7,300**
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-0423	04/20/2023	**2.3**	**--**	**820**	**--**	**2,100**	<4	**7.7 J**	**2,600**	**7,400**
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-1023	10/18/2023	**2.1**	--	**690**	--	**2,200**	**1.4**	**7.9 J**	**2,600**	**7,400**
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-0424	04/24/2024	**2.5 J**	--	**780 J**	--	**1,800**	**1.2**	**7.6 J**	**2,200**	**7,100**
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-1024	10/30/2024	**2.29**	--	**620**	--	**2,120**	**1.45 J**	**7.63 J**	**2,590**	**6,960**
MW-77A	Downgradient	Alluvial/Moqui	CH-DEV-MW77A-0621	6/3/2021	**0.70**	**--**	**600**	**--**	**3,600**	**0.56**	--	**3,800**	**11,000 J**
MW-77A	Downgradient	Alluvial/Moqui	CH-BAPD-MW77A-0621	6/15/2021	**0.73**	**--**	**590**	**--**	**3,200**	**0.36 J**	--	**4,100**	**11,000**
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0821	8/2/2021	**0.82**	**--**	**550**	**--**	**3,300**	**0.33 J**	**7.3 J**	**4,200**	**11,000**
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-M77-1021	10/28/2021	**0.73**	**--**	**580**	**--**	**3,900**	**0.32 J**	**7.4 J**	**5,000**	**11,000**
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0422	4/28/2022	**0.79**	**--**	**630**	**--**	**3,400**	**0.41 J**	**7.3 J**	**4,200**	**16,000**
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-1022	10/22/2022	**0.88**	--	**620**	--	**3,500**	<0.8	**7.3 J**	**4,400**	**10,000**
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0423	04/25/2023	**0.77**	**--**	**570**	**--**	**3,400**	<4	**7.4 J**	**4,200**	**11,000**
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-1023	10/17/2023	**0.72**	--	**550**	--	**3,600**	<0.8	**7.5 J**	**4,700**	**11,000**
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0424	04/18/2024	**0.77**	--	**590**	--	**3,200**	<0.4	**7.5 J**	**3,800**	**12,000**
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-1024	10/30/2024	**0.781**	--	**487**	--	**3,340**	**0.895 J**	**7.55 J**	**3,930**	**10,800**
MW-78A	Downgradient	Alluvial	CH-DEV-MW78A-0621	6/8/2021	**0.48**	**--**	**710**	**--**	**2,600**	**0.51**	--	**2,200**	**7,700**
MW-78A	Downgradient	Alluvial	CH-BAPD-MW78A-0621	6/14/2021	**0.41**	**--**	**720**	**--**	**2,800**	**0.38 J**	--	**2,400**	**8,100**
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-0821	8/2/2021	**0.43**	**--**	**690**	**--**	**2,700**	**0.39 J**	**7.3 J**	**2,400**	**8,000**
MW-78A	Downgradient	Alluvial	CH-CCR-M78-1021	10/28/2021	**0.41**	**--**	**710**	**--**	**3,000**	**0.36 J**	**7.3 J**	**2,600**	**7,400**
MW-78A	Downgradient	Alluvial	CH-CCR-M78A-0522	5/11/2022	**0.42**	--	**740**	--	**2,800**	**0.54 J**	**7.5 J**	**2,400**	**8,100**
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-1022	10/25/2022	**0.42**	--	**760**	--	**2,800**	<0.8	**7.3 J**	**2,400**	**9,400**
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-0423	04/24/2023	**0.41**	**--**	**760**	**--**	**2,800**	<4	**7.6 J**	**2,400**	**8,000**
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-1023	10/23/2023	**0.42**	--	**750**	--	**2,700**	<0.4	**7.2 J**	**2,300**	**7,900**
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-0424	04/19/2024	**0.43**	--	**760**	--	**2,700**	<0.4	**7.3 J**	**2,200**	**7,900**
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-1024	10/23/2024	**0.438**	--	**597**	--	**2,810**	**0.822 J**	**7.61 J**	**2,330**	**9,600**
MW-79A	Downgradient	Alluvial	CH-BAPD-MW79A-0621	6/14/2021	**0.33**	**--**	**750**	**--**	**2,200**	**0.54 J**	--	**2,400**	**5,600**
MW-79A	Downgradient	Alluvial	CH-CRT-M79A-0621_062421	6/24/2021	**0.34**	**--**	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CRT2-M79A-0621_062421	6/24/2021	**0.35**	**--**	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CRT2-M79A-0621_062521	6/25/2021	**0.33**	**--**	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-0821	8/2/2021	**0.34**	**--**	**730**	**--**	**2,200**	**0.52 J**	**7.3 J**	**2,300**	**7,200**
MW-79A	Downgradient	Alluvial	CH-CCR-M79-1021	10/25/2021	**0.33**	**--**	**740**	**--**	**2,400**	**0.51 J**	**7.3 J**	**2,600**	**6,900 J**
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-1021	10/25/2021	**0.33**	**--**	**750**	**--**	**2,400**	**0.51 J**	**7.4 J**	**2,500**	**7,300 J**
MW-79A	Downgradient	Alluvial	CH-CCR-M79A-0522	5/12/2022	**0.35**	--	**760**	--	**2,300**	**0.69 J**	**7.6 J**	**2,300**	**7,000**
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-0522	5/12/2022	**0.35**	--	**780**	--	**2,400**	**0.67 J**	**7.6 J**	**2,400**	**7,300**
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-1022	10/20/2022	**0.38**	--	**810**	--	**2,400**	<0.8	**7.3 J**	**2,600**	**7,600**
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-1022	10/20/2022	**0.41**	--	**780**	--	**2,400**	<0.8	**7.3 J**	**2,400**	**6,900**
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-0423	04/14/2023	**0.39 J**	**--**	**880**	**--**	**2,400**	<2	**7.5 J**	**2,400 J**	**7400 J**
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-0423	04/14/2023	**0.39 J**	**--**	**860**	**--**	**2,400**	<2	**7.8 J**	**2,400 J**	**3000 J**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-1023	10/13/2023	**0.37**	--	**740**	--	**2,400**	**0.89**	**7.4 J**	**2,400**	**7,300**
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-1023	10/13/2023	**0.35**	--	**780**	--	**2,400**	**0.52**	**7.4 J**	**2,400**	**7,300**
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-0424	04/30/2024	**0.34**	--	**780**	--	**2,300**	**0.63**	**7.5 J**	**2,200**	**7,000**
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-0424	04/30/2024	**0.34**	--	**770**	--	**2,300**	**0.53**	**7.5 J**	**2,100**	**7,000**
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-1024	11/11/2024	**0.363**	--	**688**	--	**2,440**	**0.697 J**	**7.34 J**	**2,390**	**7,460**
W-305	Downgradient	Alluvial	--	12/2/2015	**0.32**	--	**770**	--	**2,600**	**1.4**	**7.05**	**2,300**	**7,000**
W-305	Downgradient	Alluvial	--	3/9/2016	**0.3**	--	**690**	--	**2,300**	<0.80	**7.32**	**2,300**	**7,000**
W-305	Downgradient	Alluvial	--	5/11/2016	**0.29**	--	**710**	--	**2,100**	<2.0	**--**	**2,200**	**7,000**
W-305	Downgradient	Alluvial	--	8/27/2016	**0.31**	--	**720**	--	**2,200**	<0.80	**7.3**	**2,400**	**7,200**
W-305	Downgradient	Alluvial	--	9/22/2016	**0.32**	--	**700**	--	**2,300**	<2.0	**7.6**	**2,400**	**7,400**
W-305	Downgradient	Alluvial	--	2/21/2017	**0.32**	--	**730**	--	**2,200**	<0.80	**7.4**	**2,300**	**6,800**
W-305	Downgradient	Alluvial	--	4/11/2017	**0.32**	--	**730**	--	**2,300**	<0.80	**7.7**	**2,400**	**7,300**
W-305	Downgradient	Alluvial	--	4/24/2017	**0.33**	--	**690**	--	**2,300**	<0.80	**7.6**	**2,400**	**6,800**
W-305	Downgradient	Alluvial	--	5/22/2017	**0.33**	--	**750**	--	**2,300**	<0.80	**7.6**	**2,400**	**7,200**
W-305	Downgradient	Alluvial	--	5/24/2017	**0.35**	--	**740**	--	**2,400**	<0.80	**7.5**	**2,500**	**6,800**
W-305	Downgradient	Alluvial	--	6/29/2017	**0.31**	--	**670**	--	**2,600**	<0.40	**7.5**	**2,500**	**6,900**
W-305	Downgradient	Alluvial	--	7/28/2017	**0.35**	--	**750**	--	**2,300**	<0.80	**7.3**	**2,300**	**7,200**
W-305	Downgradient	Alluvial	--	9/6/2017	**0.33**	--	**770**	--	**2,200**	<0.80	**7.4**	**2,400**	**6,900**
W-305	Downgradient	Alluvial	--	12/7/2017	**0.34**	--	**760**	--	**2,500**	<0.80	**7.4**	**2,400**	**7,000**
W-305	Downgradient	Alluvial	CH-CCR-W305-21518	2/15/2018	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-305	Downgradient	Alluvial	CH-CCR-W-305-51918	5/19/2018	**0.34**	--	**700**	--	**2,700**	<0.80	**7.3**	**2,800**	**7,000**
W-305	Downgradient	Alluvial	CH-CCR-W-305-51918	5/19/2018	**--**	**--**	**--**	**--**	**2,400**	**--**	**--**	**2,300**	**--**
W-305	Downgradient	Alluvial	CH-CCR-W-305-102618	10/26/2018	**0.34**	--	**730**	--	**2,300**	<0.80	**7.3**	**2,300**	**7,000**
W-305	Downgradient	Alluvial	CH-W-305-102618	10/26/2018	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-305	Downgradient	Alluvial	CH-CCR-W305-12718	12/7/2018	**0.35**	--	**710**	--	**2,400**	<0.80 J,U J	**7.3 J**	**2,300**	**7,000**
W-305	Downgradient	Alluvial	CH-CCR-W305-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	<0.40	**--**	**--**	**--**
W-305	Downgradient	Alluvial	CH-CCR-W305-41719	4/17/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-305	Downgradient	Alluvial	CH-CCR-W305-8119	8/1/2019	**0.33**	--	**670**	--	**2,400**	<0.8	**7.3 J**	**2,300**	**7,000**
W-305	Downgradient	Alluvial	*DUP* CH-CCR-FD01-102319	10/23/2019	**0.48**	--	**85**	--	**1,400**	**1.3**	**7.8 J**	**350**	**7,100**
W-305	Downgradient	Alluvial	CH-CCR-W305-102319	10/23/2019	**0.34**	--	**690**	--	**2,400**	<0.80	**7.3 J**	**2,300**	**7,000**
W-305	Downgradient	Alluvial	CH-CCR-W305-0420	4/18/2020	**0.41**	--	**680**	--	**2,400**	<0.8	**7.4 J**	**2,300**	**7,600**
W-305	Downgradient	Alluvial	CH-CCR-W305-1020	10/22/2020	**0.34**	--	**720**	--	**2,500**	**0.39 J**	**7.3 J**	**2,400**	**6,900**
W-305	Downgradient	Alluvial	CH-CCR-W305-0421	4/17/2021	**0.37**	--	**730**	--	**2,300 J**	**0.45 J**	**7.4 J**	**2,300 J**	**6,800**
W-305	Downgradient	Alluvial	CH-CCR-W305-1021	10/29/2021	**0.37**	--	**690**	--	**2,600**	**0.32 J**	**7.4 J**	**2,700**	**6,600**
W-305	Downgradient	Alluvial	CH-CCR-W305-0522	5/12/2022	**0.40**	--	**730**	--	**2,400**	**0.53 J**	**7.6 J**	**2,400**	**7,200**
W-305	Downgradient	Alluvial	CH-CCR-W305-1022	10/20/2022	**0.48**	--	**820**	--	**2,400**	<0.8	**7.4 J**	**2,500**	**7,300**
W-305	Downgradient	Alluvial	CH-CCR-W305-0423	04/14/2023	**0.48 J**	--	**800**	--	**2,300**	<2	**7.4 J**	**2,300 J**	**7,200 J**
W-305	Downgradient	Alluvial	CH-CCR-W305-1023	11/21/2023	**0.45**	--	**720**	--	**2,300**	<0.8	**7.4 J**	**2,300**	**7,000**
W-305	Downgradient	Alluvial	CH-CCR-W305-0424	05/02/2024	**0.45**	--	**710**	--	**3,800**	<0.4	**7.5 J**	**4,400**	**6,900**
W-305	Downgradient	Alluvial	CH-CCR-W305-1024	11/11/2024	**0.464**	--	**632**	--	**2,340**	**0.51 J**	**7.49 J**	**2,350**	**7,280**
W-306	Downgradient	Alluvial	7797	12/2/2015	**0.32**	--	**550**	--	**2,400**	**0.75**	**7.02**	**3,600**	**8,900**
W-306	Downgradient	Alluvial	CH-W-306-0316	3/9/2016	**0.46**	--	**460**	--	**2,200**	**1.4**	**7.82**	**7,100**	**13,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-516	5/11/2016	**0.56**	--	**430**	--	**1,900**	<2.0	**--**	**8,000**	**15,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-816	8/26/2016	**1.1**	--	**440**	--	**1,800**	**1.4**	**7.7**	**11,000**	**19,000**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
W-306	Downgradient	Alluvial	CH-CCR-W306-916	9/22/2016	**1.1**	**--**	**430**	**--**	**4,900**	<0.40	**7.9**	**11,000**	**20,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-217	2/21/2017	**1.1**	**--**	**430**	**--**	**1,800**	**1.5**	**7.9**	**12,000**	**18,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-41217	4/12/2017	**1.0**	**--**	**410**	**--**	**1,800**	**1.4**	**8.2**	**12,000**	**20,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-42517	4/25/2017	**1.1**	**--**	**410**	**--**	**1,900**	**1.5**	**7.9**	**13,000**	**20,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-52217	5/22/2017	**1.0**	**--**	**420**	**--**	**1,800**	**1.1**	**7.9**	**12,000**	**20,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-52417	5/24/2017	**1.0**	**--**	**420**	**--**	**1,800**	**1.0**	**7.9**	**12,000**	**18,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-70117	7/1/2017	**0.95**	**--**	**380**	**--**	**2,100**	**1.3**	**7.8**	**13,000**	**19,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-72817	7/28/2017	**0.99**	**--**	**410**	**--**	**2,100**	**1.2**	**7.8**	**12,000**	**18,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-90617	9/6/2017	**0.97**	**--**	**430**	**--**	**1,800**	**1.4**	**7.8**	**11,000**	**17,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-120717	12/7/2017	**1.0**	**--**	**440**	**--**	**1,900**	**1.4**	**7.9**	**12,000**	**18,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-21518	2/15/2018	**--**	**--**	**--**	**--**	**--**	**1.3**	**--**	**--**	**--**
W-306	Downgradient	Alluvial	CH-CCR-FD02-21518	2/15/2018	**--**	**--**	**--**	**--**	**--**	**1.3**	**--**	**--**	**--**
W-306	Downgradient	Alluvial	CH-CCR-W-306-51918	5/19/2018	**1.0**	**--**	**390**	**--**	**2,000**	**1.6**	**7.8**	**13,000**	**18,000**
W-306	Downgradient	Alluvial	CH-CCR-W-306-102618	10/26/2018	**1.0**	**--**	**420**	**--**	**1,800**	**1.4**	**7.9**	**12,000**	**18,000**
W-306	Downgradient	Alluvial	CH-W-306-102618	10/26/2018	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-306	Downgradient	Alluvial	CH-CCR-W306-12718	12/7/2018	**1.1**	**--**	**410**	**--**	**1,900**	**1.4 J,U J**	**7.9 J**	**12,000**	**19,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	**1.2**	**--**	**--**	**--**
W-306	Downgradient	Alluvial	CH-CCR-W306-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	**1.0**	**--**	**--**	**--**
W-306	Downgradient	Alluvial	CH-CCR-W306-8119	8/1/2019	**1.1**	**--**	**390**	**--**	**1,900**	**0.99**	**7.9 J**	**12,000**	**19,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-102319	10/23/2019	**1.0**	**--**	**380**	**--**	**1,900**	**1.0**	**7.9 J**	**13,000**	**19,000**
W-306	Downgradient	Alluvial	*DUP* CH-CCR-FD04-0420	4/19/2020	**1.1**	**--**	**400**	**--**	**1,800**	**1.5**	**7.9 J**	**12,000**	**19,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-0420	4/19/2020	**1.2**	**--**	**400**	**--**	**2,000**	**1.1**	**7.8 J**	**13,000**	**19,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-1020	10/22/2020	**0.94**	**--**	**440**	**--**	**2,100**	**1.1**	**7.7 J**	**13,000**	**18,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-0421	4/17/2021	**0.99**	**--**	**430**	**--**	**1,900**	**0.94**	**7.9 J**	**12,000**	**18,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-1021	10/29/2021	**0.95**	**--**	**430**	**--**	**2,100**	**0.84**	**7.9 J**	**12,000**	**17,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-0522	05/04/2022	**1.0**	--	**440**	--	**2,000**	**0.87**	**7.9 J**	**12,000**	**17,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-1022	10/23/2022	**1.2**	--	**440**	--	**1,900**	<0.8	**7.8 J**	**11,000**	**16,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-0423	04/19/2023	**1.2**	**--**	**450**	**--**	**2,000**	<4	**7.9 J**	**12,000**	**19,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-1023	10/19/2023	**1.0**	--	**420**	--	**2,100**	**1.0**	**7.9 J**	**11,000**	**18,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-0424	04/23/2024	**1.1**	--	**460**	--	**1,900**	**0.79**	**7.9 J**	**11,000**	**18,000**
W-306	Downgradient	Alluvial	CH-CCR-W306-1024	10/24/2024	**1.2**	--	**327**	--	**2,150**	**1.9**	**7.83 J**	**11,100**	**19,800**
W-314	Downgradient	Alluvial	7798	12/2/2015	**0.98**	**--**	**780**	**--**	**2,900**	**1.2**	**7.62**	**2,200**	**7,400**
W-314	Downgradient	Alluvial	CH-W-314-0316	3/10/2016	**0.96**	**--**	**760**	**--**	**3,000**	<0.80	**7.35**	**2,300**	**7,200**
W-314	Downgradient	Alluvial	CH-CCR-W314-516	5/11/2016	**0.97**	**--**	**780**	**--**	**2,600**	<2.0	**--**	**2,100**	**7,400**
W-314	Downgradient	Alluvial	CH-CCR-W314-816	8/26/2016	**1.1**	**--**	**820**	**--**	**2,600**	**0.93**	**7.3**	**2,200**	**8,000**
W-314	Downgradient	Alluvial	CH-CCR-W314-916	9/22/2016	**1.1**	**--**	**800**	**--**	**2,700**	**1.1**	**7.6**	**2,300**	**8,100**
W-314	Downgradient	Alluvial	CH-CCR-W314-217	2/21/2017	**1.1**	**--**	**810**	**--**	**2,600**	**0.97**	**7.5**	**2,100**	**7,200**
W-314	Downgradient	Alluvial	CH-CCR-W314-41117	4/11/2017	**1.1**	**--**	**780**	**--**	**2,800**	**0.91**	**7.7**	**2,200**	**7,700**
W-314	Downgradient	Alluvial	CH-CCR-W314-42517	4/25/2017	**1.1**	**--**	**810**	**--**	**2,800**	**0.80**	**7.5**	**2,300**	**7,500**
W-314	Downgradient	Alluvial	CH-CCR-W314-52217	5/22/2017	**1.1**	**--**	**840**	**--**	**2,800**	**0.90**	**7.5**	**2,300**	**7,600**
W-314	Downgradient	Alluvial	CH-CCR-W314-52417	5/24/2017	**1.1**	**--**	**840**	**--**	**2,800**	**0.90**	**7.4**	**2,300**	**7,400**
W-314	Downgradient	Alluvial	CH-CCR-W314-63017	6/30/2017	**1.1**	**--**	**770**	**--**	**2,900**	**1.1**	**7.4**	**2,500**	**7,900**
W-314	Downgradient	Alluvial	CH-CCR-W314-72817	7/28/2017	**1.1**	**--**	**800**	**--**	**2,800**	**0.90**	**7.3**	**2,200**	**7,600**
W-314	Downgradient	Alluvial	CH-CCR-W314-90717	9/7/2017	**1.1**	**--**	**860**	**--**	**2,800**	**0.90**	**7.3**	**2,200**	**7,700**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
W-314	Downgradient	Alluvial	CH-CCR-W314-120717	12/7/2017	**1.1**	**--**	**830**	**--**	**2,900**	**0.85**	**7.4**	**2,200**	**7,500**
W-314	Downgradient	Alluvial	CH-CCR-W314-21518	2/15/2018	**--**	**--**	**--**	**--**	**--**	**1.1**	**--**	**--**	**--**
W-314	Downgradient	Alluvial	CH-CCR-W-314-52018	5/20/2018	**1.1**	**--**	**790**	**--**	**2,900**	**1.3**	**7.3**	**2,400**	**7,500**
W-314	Downgradient	Alluvial	CH-CCR-W-314-102418	10/24/2018	**1.1**	**--**	**800**	**--**	**2,600**	**0.83**	**7.5**	**2,200**	**7,400**
W-314	Downgradient	Alluvial	CH-W-314-102418	10/24/2018	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-314	Downgradient	Alluvial	CH-CCR-W314-12818	12/8/2018	**1.1**	**--**	**800**	**--**	**2,700**	**0.89 J,U J**	**7.3 J**	**2,100**	**7,700**
W-314	Downgradient	Alluvial	CH-CCR-W314-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	**0.82**	**--**	**--**	**--**
W-314	Downgradient	Alluvial	CH-CCR-W314-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	**0.87**	**--**	**--**	**--**
W-314	Downgradient	Alluvial	CH-CCR-W314-8119	8/1/2019	**1.2**	**--**	**740**	**--**	**2,700**	**0.84**	**7.4 J**	**2,200**	**7,600**
W-314	Downgradient	Alluvial	CH-CCR-W314-102419	10/24/2019	**1.2**	**--**	**750**	**--**	**2,700 J**	<0.80U J	**7.4 J**	**2,200 J**	**7,400 J**
W-314	Downgradient	Alluvial	CH-CCR-W314-0420	4/19/2020	**1.4**	**--**	**790**	**--**	**2,900**	**0.84**	**7.5 J**	**2,300**	**7,600**
W-314	Downgradient	Alluvial	CH-CCR-W314-1020	10/23/2020	**1.2**	**--**	**790**	**--**	**2,800**	**0.90**	**7.2 J**	**2,400**	**7,200**
W-314	Downgradient	Alluvial	CH-CCR-W314-0421	4/16/2021	**1.3**	**--**	**770**	**--**	**2,600**	**1.1**	**7.4 J**	**2,300**	**7,800**
W-314	Downgradient	Alluvial	CH-CCR-W314-1021	10/29/2021	**1.3**	**--**	**730**	**--**	**2,400**	**1.1**	**7.4 J**	**2,200**	**6,800**
W-314	Downgradient	Alluvial	CH-CCR-W314-0522	5/11/2022	**1.4**	--	**730**	--	**2,500**	**1.0**	**7.6 J**	**2,500**	**7,300**
W-314	Downgradient	Alluvial	CH-CCR-W314-1022	10/25/2022	**1.4**	--	**720**	--	**2,400**	**1.0**	**7.5 J**	**2,600**	**7,900**
W-314	Downgradient	Alluvial	CH-CCR-W314-0423	04/20/2023	**1.7**	**--**	**750**	**--**	**2,300**	<4	**7.5 J**	**2,500**	**7,300**
W-314	Downgradient	Alluvial	CH-CCR-W314-1023	10/18/2023	**1.5**	--	**670**	--	**2,300**	**0.97**	**7.5 J**	**2,600**	**7,600**
W-314	Downgradient	Alluvial	CH-CCR-W314-0424	04/29/2024	**1.5**	--	**670**	--	**2,800**	**0.75**	**7.6 J**	**3,500**	**7,500**
W-314	Downgradient	Alluvial	CH-CCR-W314-1024	10/30/2024	**1.65**	--	**584**	--	**2,220**	**1.2 J**	**7.64 J**	**2,580**	**7,040**
BSX-01	Extraction Well	Moqui	CH-BAPD-BSX01-0621	6/14/2021	**3.3**	**--**	**680**	**--**	**2,100**	**1.7**	**--**	**3,000**	**7,300**
BSX-01	Extraction Well	Moqui	CH-CRT-BSX01-0621_062221	6/22/2021	**3.4**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
BSX-01	Extraction Well	Moqui	CH-CCR-BSX01-0821	8/2/2021	**4.0**	**--**	**630**	**--**	**2,100**	**2.5**	**7.6 J**	**3,000**	**7,200**
BSX-02	Extraction Well	Moqui	CH-CCR-BSX02-0821	8/2/2021	**1.8**	**--**	**660**	**--**	**2,200**	**0.85**	**7.4 J**	**2,600**	**6,400**
BSX-03	Extraction Well	Moqui	CH-CRT-BSX03-0621_062621	6/26/2021	**3.2**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
BSX-03	Extraction Well	Moqui	CH-CRT-BSX03-0621_062321	6/23/2021	**1.7**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
BSX-03	Extraction Well	Moqui	CH-CCR-BSX03-0821	8/2/2021	**3.2**	**--**	**640**	**--**	**2,100**	**2.9**	**7.8 J**	**2,900**	**7,100**
BSX-04	Extraction Well	Moqui	CH-CRT-BSX04-0621_062721_AM	6/27/2021	**1.7**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
BSX-04	Extraction Well	Moqui	CH-CRT-BSX04-0621_062721_PM	6/27/2021	**1.7**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
BSX-04	Extraction Well	Moqui	CH-CCR-BSX04-0821	8/3/2021	**1.6**	**--**	**700**	**--**	**2,100**	**0.99**	**7.2 J**	**2,700**	**6,600**
BSX-05	Extraction Well	Alluvial	CH-CCR-BSX05-0821	8/3/2021	**3.1**	**--**	**680**	**--**	**2,100**	**2.4**	**7.5 J**	**3,000**	**7,100**
M-55A	Supplementary	Alluvial	7877	12/1/2015	**0.40**	**--**	**630**	**--**	**2,300**	**0.57**	**7.33**	**3,800**	**8,900**
M-55A	Supplementary	Alluvial	CH-M-55A-0316	3/9/2016	**0.39**	**--**	**630**	**--**	**2,900**	<0.80	**7.49**	**3,500**	**9,600**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-516	5/10/2016	**0.41**	**--**	**620**	**--**	**2,900**	<2.0	**--**	**3,400**	**9,900**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-816	8/26/2016	**0.43**	**--**	**660**	**--**	**3,200**	<0.80	**7.3**	**3,500**	**10,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-916	9/22/2016	**0.42**	**--**	**630**	**--**	**3,400**	<0.80	**7.7**	**3,700**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-217	2/21/2017	**0.40**	**--**	**660**	**--**	**3,500**	<0.80	**7.5**	**3,400**	**10,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-41217	4/12/2017	**0.40**	**--**	**670**	**--**	**3,800**	<0.80	**7.5**	**3,500**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-42517	4/25/2017	**0.44**	**--**	**680**	**--**	**3,600**	<0.80	**7.3**	**3,500**	**10,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-51817	5/18/2017	**0.41**	**--**	**670**	**--**	**3,800**	<0.80	**7.6**	**3,700**	**10,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-52417	5/24/2017	**0.42**	**--**	**690**	**--**	**3,700**	<0.80	**7.4**	**3,500**	**10,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-70117	7/1/2017	**0.42**	**--**	**650**	**--**	**3,900**	<0.80	**7.4**	**3,700**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-72817	7/28/2017	**0.44**	**--**	**710**	**--**	**4,100**	<0.80	**7.3**	**3,800**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-90717	9/7/2017	**0.45**	**--**	**710**	**--**	**3,900**	<0.80	**7.3**	**3,600**	**11,000**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
M-55A	Supplementary	Alluvial	CH-CCR-M55A-12818	12/8/2018	**0.43**	**--**	**700**	**--**	**4,300**	<0.80 J,U J	**7.3 J**	**3,400**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-8119	8/1/2019	**0.41**	**--**	**680**	**--**	**4,200**	<0.8	**7.3 J**	**3,300**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-102419	10/24/2019	**0.40**	**--**	**670**	**--**	**4,300**	<0.80	**7.4 J**	**3,400**	**12,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55-0420	4/17/2020	**0.46**	**--**	**700**	**--**	**4,600**	<0.8	**7.5 J**	**3,500**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55-1020	10/24/2020	**0.39**	**--**	**730**	**--**	**4,700**	**0.49 J**	**7.4 J**	**3,500**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55-0421	4/18/2021	**0.40**	**--**	**750**	**--**	**4,500**	**0.58 J**	**7.4 J**	**3,500**	**10,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55-1021	10/27/2021	**0.41**	**--**	**700**	**--**	**4,100**	**0.59 J**	**7.5 J**	**3,400**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-0522	5/12/2022	**0.42**	--	**730**	--	**4,400**	**0.61 J**	**7.6 J**	**3,400**	**10,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-0423	04/20/2023	**0.44**	**--**	**800**	**--**	**4,500**	<2	**7.7 J**	**3,500**	**12,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-1023	10/12/2023	**0.44**	--	**710**	--	**4,300**	**0.6**	**7.5 J**	**3,300**	**12,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-0424	04/22/2024	**0.47 J**	--	**800 J**	--	**4,500**	**0.65**	**7.6 J**	**3,100**	**11,000**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-1024	10/22/2024	**0.474**	--	**629**	--	**4,310**	<0.761	**7.73 J**	**3,270**	**12,100**
MW-69A	Supplementary	Alluvial	CH-CCR-M69-0420	4/19/2020	**3.7**	**--**	**630**	**--**	**2,500**	**1.5**	**7.5 J**	**3,000**	**8,000**
MW-69A	Supplementary	Alluvial	CH-CCR-M69-1020	10/23/2020	**3.1**	**--**	**660**	**--**	**2,500**	**1.5**	**7.5 J**	**3,000**	**7,800**
MW-69A	Supplementary	Alluvial	CH-CCR-M69-0421	4/17/2021	**3.3**	**--**	**690**	**--**	**2,500**	**1.3**	**7.3 J**	**3,100**	**8,100**
MW-69A	Supplementary	Alluvial	CH-CCR-M69-1021	10/29/2021	**3.2**	**--**	**670**	**--**	**3,100**	**1.1**	**7.3 J**	**4,300**	**7,100**
MW-69A	Supplementary	Alluvial	CH-CCR-M69A-0522	05/04/2022	**3.1**	**3.2**	**630**	**630**	**2,400**	**1.5**	**7.5 J**	**3,000**	**7,300**
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-1022	10/24/2022	**3.3**	--	**690**	--	**2,400**	**1.1**	**7.4 J**	**3,100**	**8,000**
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-0423	04/19/2023	**3.7**	**--**	**750**	**--**	**2,500**	<2	**7.5 J**	**3,100**	**8,000**
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-1023	10/19/2023	**3.1**	--	**630**	--	**2,500**	**1.4**	**7.6 J**	**2,900**	**8,400**
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-0424	04/25/2024	**3.8 J**	--	**760 J**	--	**2,400**	**1.3**	**7.5 J**	**2,800**	**8,200**
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-1024	10/25/2024	**3.61**	--	**595**	--	**2,500**	**1.5**	**7.35 J**	**2,910**	**10,100**
MW-70M	Supplementary	Moqui	CH-CCR-M70-0420	4/19/2020	**2.4**	**--**	**640**	**--**	**2,400**	**1.2**	**7.5 J**	**2,700**	**7,400**
MW-70M	Supplementary	Moqui	CH-CCR-M70-1020	10/23/2020	**2.1**	**--**	**660**	**--**	**2,200**	**1.1**	**7.4 J**	**2,600**	**6,900**
MW-70M	Supplementary	Moqui	*DUP* CH-CCR-FD03-1020	10/23/2020	**2.1**	**--**	**680**	**--**	**2,200**	**1.1**	**7.4 J**	**2,600**	**6,900**
MW-70M	Supplementary	Moqui	CH-CCR-M70-0421	4/17/2021	**2.2**	**--**	**680**	**--**	**2,200**	**1.2**	**7.4 J**	**2,700**	**7,300**
MW-70M	Supplementary	Moqui	CH-CCR-M70-1021	10/29/2021	**2.2**	**--**	**650**	**--**	**4,600**	**0.97**	**7.5 J**	**5,900**	**7,000**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-0522	05/04/2022	**2.2**	**2.4**	**630**	**640**	**2,100**	**1.3**	**7.6 J**	**2,700**	**7,100**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-1022	10/24/2022	**2.5**	--	**680**	--	**2,200**	**1.1**	**7.5 J**	**2,900**	**7,300**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-0423	04/19/2023	**2.7**	**--**	**680**	**--**	**2,200**	<2	**7.6 J**	**2,900**	**7,700**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-1023	10/18/2023	**2.3**	--	**620**	--	**2,200**	**1.3**	**7.6 J**	**2,700**	**7,500**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-0424	04/25/2024	**2.7 J**	--	**690 J**	--	**2,000**	**1.3**	**7.6 J**	**2,600**	**7,400**
MW-70M	Supplementary	Moqui	(Be re-run)	04/25/2024	**--**	--	**--**	--	**--**	**--**	**--**	**--**	**--**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-1024	10/28/2024	**2.6**	--	**571**	--	**2,080 J**	**0.992 J**	**7.64 J**	**2,730 J**	**7,180 J**
W-301	Supplementary	Alluvial	CH-CCR-W301-12718	12/7/2018	**2.4**	**--**	**760**	**--**	**4,000**	<0.80 J,U J	**7.2 J**	**3,300**	**10,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	<0.40U J	**--**	**--**	**--**
W-301	Supplementary	Alluvial	CH-CCR-W301-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-301	Supplementary	Alluvial	CH-CCR-W301-8919	8/9/2019	**0.72**	**--**	**810**	**--**	**6,200**	<0.8	**7.2 J**	**3,500**	**14,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-102319	10/23/2019	**0.65**	**--**	**760**	**--**	**6,300 J**	<0.80U J	**7.3 J**	**3,600 J**	**14,000 J**
W-301	Supplementary	Alluvial	CH-CCR-W301-0420	4/18/2020	**0.70**	**--**	**690**	**--**	**6,400**	<0.8	**7.4 J**	**3,600**	**14,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-1020	10/22/2020	**0.58**	**--**	**780**	**--**	**6,600**	**0.33 J**	**7.4 J**	**3,800**	**13,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-0421	4/17/2021	**0.60**	**--**	**800**	**--**	**6,200**	**0.34 J**	**7.4 J**	**3,700**	**14,000**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
W-301	Supplementary	Alluvial	CH-CCR-W301-1021	10/28/2021	**0.60**	**--**	**770**	**--**	**6,400**	**0.13 J**	**7.4 J**	**4,000**	**14,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-0522	05/03/2022	**0.62**	**--**	**780**	**--**	**6,000**	**0.43 J**	**7.5 J**	**3,700**	**13,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-1022	10/22/2022	**0.71**	--	**820**	--	**6,000**	<0.8	**7.3 J**	**4,000**	**14,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-0423	04/18/2023	**0.70**	**--**	**850**	**--**	**5,700**	<4	**7.5 J**	**3,800**	**14,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-1023	10/19/2023	**0.63**	--	**750**	--	**5,700**	<0.8	**7.6 J**	**3,700**	**14,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-0424	04/23/2024	**0.71**	--	**780**	--	**5,700**	<0.4	**7.5 J**	**3,700**	**15,000**
W-301	Supplementary	Alluvial	CH-CCR-W301-1024	10/24/2024	**0.80**	--	**560**	--	**5,450**	**0.906 J**	**7.60 J**	**3,770**	**15,000**
W-302	Supplementary	Alluvial	CH-CCR-W302-12718	12/7/2018	**0.64**	**--**	**560**	**--**	**2,600**	**0.98 J,U J**	**7.3 J**	**2,400**	**7,200**
W-302	Supplementary	Alluvial	CH-CCR-W302-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	**0.88**	**--**	**--**	**--**
W-302	Supplementary	Alluvial	CH-CCR-W302-41719	4/17/2019	**--**	**--**	**--**	**--**	**--**	**0.82**	**--**	**--**	**--**
W-302	Supplementary	Alluvial	CH-CCR-W302-8919	8/9/2019	**0.66**	**--**	**610**	**--**	**2,700**	**0.80**	**7.3 J**	**2,300**	**7,700**
W-302	Supplementary	Alluvial	CH-CCR-W302-102319	10/23/2019	**0.59**	**--**	**570**	**--**	**2,700 J**	**0.80 J**	**7.4 J**	**2,300 J**	**8,000 J**
W-302	Supplementary	Alluvial	CH-CCR-W302-0420	4/17/2020	**0.64**	**--**	**590**	**--**	**3,000**	**0.97**	**7.4 J**	**2,300**	**8,100**
W-302	Supplementary	Alluvial	CH-CCR-W302-1020	10/23/2020	**0.57**	**--**	**640**	**--**	**3,200**	**0.82**	**7.3 J**	**2,300**	**7,700**
W-302	Supplementary	Alluvial	CH-CCR-W302-0421	4/17/2021	**0.60**	**--**	**680**	**--**	**3,100**	**0.95**	**7.4 J**	**2,200**	**8,000**
W-302	Supplementary	Alluvial	CH-CCR-W302-1021	10/30/2021	**0.58**	**--**	**690**	**--**	**3,500**	**0.72 J**	**7.4 J**	**2,400**	**7,300**
W-302	Supplementary	Alluvial	CH-CCR-W302-0522	5/11/2022	**0.62**	--	**740**	--	**3,200**	**0.90**	**7.6 J**	**2,100**	**8,700**
W-302	Supplementary	Alluvial	CH-CCR-W302-1022	10/25/2022	**0.62**	--	**800**	--	**3,500**	<0.8	**7.3 J**	**2,300**	**9,100**
W-302	Supplementary	Alluvial	CH-CCR-W302-0423	04/24/2023	**0.58**	**--**	**770**	**--**	**3,200**	<4	**7.3 J**	**2,100**	**8,300**
W-302	Supplementary	Alluvial	CH-CCR-W302-1023	10/12/2023	**0.59**	--	**770**	--	**3,400**	**1.1**	**7.4 J**	**2,200**	**8,600**
W-302	Supplementary	Alluvial	CH-CCR-W302-0424	04/19/2024	**0.61**	--	**790**	--	**3,500**	<0.4	**7.6 J**	**2,000**	**8,800**
W-302	Supplementary	Alluvial	CH-CCR-W302-1024	10/23/2024	**0.658**	--	**651**	--	**3,660**	**1.19 J**	**7.54 J**	**2,180**	**10,500**
W-303	Supplementary	Moqui	--	4/18/2020	**3.7**	**--**	**620**	**--**	**2,800**	<0.80	**7.5**	**3,300**	**8,900**
W-303	Supplementary	Moqui	CH-CCR-W303-1020	10/22/2020	**3.2**	**--**	**660**	**--**	**2,800**	**0.48 J**	**7.4 J**	**3,400**	**8,600**
W-303	Supplementary	Moqui	CH-CCR-W303-0421	4/17/2021	**3.4**	**--**	**650**	**--**	**2,700**	**0.50 J**	**7.5 J**	**3,400**	**8,700**
W-303	Supplementary	Moqui	CH-CCR-W303-1021	10/28/2021	**3.5**	**--**	**690**	**--**	**3,200**	**0.32 J**	**7.5 J**	**4,000**	**10,000**
W-303	Supplementary	Moqui	CH-CCR-W303-1022	10/22/2022	**4.4**	--	**740**	--	**3,200**	<0.8	**7.4 J**	**3,800**	**9,600**
W-303	Supplementary	Moqui	CH-CCR-W303-0522	05/04/2022	**3.4**	**--**	**630**	**--**	**3,000**	**0.67 J**	**7.5 J**	**3,400**	**8,600**
W-303	Supplementary	Moqui	CH-CCR-W303-0423	04/18/2023	**4.1**	**--**	**720**	**--**	**2,900**	<4	**7.7 J**	**3,400**	**9,200**
W-303	Supplementary	Moqui	CH-CCR-W303-1023	10/19/2023	**3.8**	--	**670**	--	**3,300**	<0.8	**7.5 J**	**3,500**	**11,000**
W-303	Supplementary	Moqui	CH-CCR-W303-0424	04/23/2024	**4.1**	--	**710**	--	**2,900**	0.56	**7.7 J**	**3,200**	**9,200**
W-303	Supplementary	Moqui	(Be re-run)	04/23/2024	**--**	--	**--**	--	**--**	--	**--**	**--**	**--**
W-303	Supplementary	Moqui	CH-CCR-W303-1024	10/24/2024	**3.86**	--	**510**	--	**2,730**	<0.761	**7.65 J**	**3,310**	**11,500**
W-304	Supplementary	Alluvial	CH-CCR-W304-12718	12/7/2018	**0.50**	**--**	**590**	**--**	**2,900**	<0.80 J,U J	**7.3 J**	**2,900**	**8,100**
W-304	Supplementary	Alluvial	CH-CCR-W304-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-304	Supplementary	Alluvial	CH-CCR-W304-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-304	Supplementary	Alluvial	CH-CCR-W304-8819	8/8/2019	**0.54**	**--**	**630**	**--**	**3,200**	<0.8	**7.3 J**	**3,000**	**8,700**
W-304	Supplementary	Alluvial	*DUP* CH-CCR-FD02-102419	10/24/2019	**0.52**	**--**	**610**	**--**	**3,400 J**	<0.80U J	**7.4 J**	**2,900 J**	**9,200 J**
W-304	Supplementary	Alluvial	CH-CCR-W304-102419	10/24/2019	**0.52**	**--**	**610**	**--**	**3,300**	<0.80	**7.4 J**	**2,900**	**9,100**
W-304	Supplementary	Alluvial	CH-CCR-W304-0420	4/17/2020	**0.52**	**--**	**570**	**--**	**2,700**	<0.8	**7.4 J**	**2,600**	**8,400**
W-304	Supplementary	Alluvial	CH-CCR-W304-1020	10/23/2020	**0.44**	**--**	**600**	**--**	**3,000**	**0.25 J**	**7.4 J**	**2,900**	**8,500**
W-304	Supplementary	Alluvial	CH-CCR-W304-0421	4/18/2021	**0.45**	**--**	**600**	**--**	**2,800**	**0.24 J**	**7.4 J**	**2,800**	**8,000**
W-304	Supplementary	Alluvial	CH-CCR-W304-1021	10/28/2021	**0.42**	**--**	**600**	**--**	**2,600**	**0.16 J**	**7.5 J**	**2,800**	**6,900**
W-304	Supplementary	Alluvial	CH-CCR-W304-0522	5/11/2022	**0.41**	--	**660**	--	**2,500**	**0.49 J**	**7.6 J**	**2,600**	**7,800**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
W-304	Supplementary	Alluvial	CH-CCR-W304-1022	10/25/2022	**0.41**	--	**720**	--	**2,700**	<0.8	**7.5 J**	**2,700**	**8,900**
W-304	Supplementary	Alluvial	CH-CCR-W304-0423	04/24/2023	**0.44**	**--**	**730**	**--**	**2,600**	<4	**7.5 J**	**2,600**	**7,700**
W-304	Supplementary	Alluvial	CH-CCR-W304-1023	10/12/2023	**0.42**	--	**720**	--	**2,700**	**0.52**	**7.5 J**	**2,600**	**7,700**
W-304	Supplementary	Alluvial	CH-CCR-W304-0424	04/22/2024	**0.49**	--	**840**	--	**2,400**	<0.4	**7.6 J**	**2,300**	**8,100**
W-304	Supplementary	Alluvial	CH-CCR-W304-1024	10/23/2024	**0.47**	--	**574**	--	**2,720**	**0.888 J**	**7.66 J**	**2,570**	**9,600**
W-307	Supplementary	Alluvial	CH-CCR-W307-12818	12/8/2018	**2.4**	**--**	**790**	**--**	**2,700**	<0.80 J,U J	**7.2 J**	**2,600**	**7,800**
W-307	Supplementary	Alluvial	CH-CCR-W307-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-307	Supplementary	Alluvial	CH-CCR-W307-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-307	Supplementary	Alluvial	CH-APP-W307-62519	6/25/2019	**2.3**	**--**	**790**	**--**	**2,500**	<0.40	**7.3**	**2,500**	**8,300**
W-307	Supplementary	Alluvial	CH-CCR-W307-8819	8/8/2019	**2.6**	**--**	**850**	**--**	**2,600**	<0.8	**7.2 J**	**2,600**	**7,800**
W-307	Supplementary	Alluvial	CH-CCR-W307-102419	10/24/2019	**2.3**	**--**	**750**	**--**	**2,800**	<0.80	**7.4 J**	**2,700**	**8,100**
W-307	Supplementary	Alluvial	CH-CCR-W307-0420	4/17/2020	**2.7**	**--**	**710**	**--**	**2,600**	<0.8	**7.3 J**	**2,500**	**8,000**
W-307	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1020	10/23/2020	**2.5**	**--**	**790**	**--**	**3,100**	**0.49 J**	**7.3 J**	**2,800**	**8,000**
W-307	Supplementary	Alluvial	CH-CCR-W307-0421	4/18/2021	**2.6**	**--**	**800**	**--**	**2,700**	**0.38 J**	**7.3 J**	**2,600**	**8,300**
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1021	10/28/2021	**2.6**	**--**	**720**	**--**	**2,700**	**0.56 J**	**7.4 J**	**2,700**	**8,400**
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1021	10/28/2021	**2.5**	**--**	**700**	**--**	**2,700**	**0.55 J**	**7.3 J**	**2,700**	**7,900**
W-307R	Supplementary	Alluvial	CH-CRT-W307R-1221	12/1/2021	**2.7**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-307R	Supplementary	Alluvial	CH-CRT2-W307R-1221	12/1/2021	**2.7**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-307R	Supplementary	Alluvial	CH-CRT3-W307R-1221	12/2/2021	**2.7**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-307R	Supplementary	Alluvial	CH-CRT4-W307R-1221	12/2/2021	**2.6**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-307R	Supplementary	Alluvial	CH-CCR-W307R-0522	5/12/2022	**2.8**	--	**700**	--	**2,700**	**0.55 J**	**7.6 J**	**2,900**	**8,600 J**
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD04-0522	5/12/2022	**2.9**	--	**720**	--	**2,700**	**0.47 J**	**7.5 J**	**2,800**	**6,900 J**
W-307R	Supplementary	Alluvial	CH-CCR-SS06-0522	5/12/2022	**2.68**	--	**704**	--	**2,730**	<0.25/0.32 J	**8.0 J**	**2,900**	**8,620 J**
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1022	10/25/2022	**2.8**	--	**790**	--	**2,500**	<0.8	**7.3 J**	**2,900**	**9,500**
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-1022	10/25/2022	**2.8**	--	**740**	--	**2,700**	<0.8	**7.4 J**	**3,100**	**8,700**
W-307R	Supplementary	Alluvial	CH-CCR-W307R-0423	04/24/2023	**2.8**	**--**	**710**	**--**	**2,400**	<4	**7.5 J**	**2,800**	**8,000**
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-0423	04/24/2023	**2.9**	**--**	**700**	**--**	**2,500**	<4	**7.4 J**	**2,900**	**8,200**
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1023	10/12/2023	**2.5**	--	**700**	--	**2,500**	**0.62**	**7.5 J**	**2,800**	**7,600**
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-1023	10/12/2023	**2.6**	--	**720**	--	**2,500**	**0.61**	**7.4 J**	**2,800**	**7,900**
W-307R	Supplementary	Alluvial	CH-CCR-W307R-0424	04/22/2024	**2.7**	--	**810**	--	**2,200**	<0.4	**7.5 J**	**2,600**	**7,300**
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-0424	04/22/2024	**2.8**	--	**820**	--	**2,200**	<0.4	**7.5 J**	**2,600**	**7,700**
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1024	10/22/2024	**2.63**	--	**595**	--	**2,390**	<0.761	**7.62 J**	**2,870**	**8,000**
W-307R	Supplementary	Alluvial	CH-CCR-FD06-1024	10/22/2024	**2.68**	--	**605**	--	**2,400**	<0.761	**7.37 J**	**2,670**	**9,000**
W-308	Supplementary	Alluvial	CH-CCR-W308-12818	12/8/2018	**0.45**	**--**	**730**	**--**	**2,900**	<0.80 J,U J	**7.1 J**	**3,000**	**8,300**
W-308	Supplementary	Alluvial	CH-CCR-W308-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-308	Supplementary	Alluvial	CH-CCR-W308-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-308	Supplementary	Alluvial	CH-APP-W308-62519	6/25/2019	**0.45**	**--**	**780**	**--**	**2,900**	<0.40	**7.3**	**2,800**	**8,800**
W-308	Supplementary	Alluvial	CH-CCR-W308-8819	8/8/2019	**0.48**	**--**	**850**	**--**	**3,000**	<0.8	**7.2 J**	**2,700**	**8,700**
W-308	Supplementary	Alluvial	CH-CCR-W308-102419	10/24/2019	**0.45**	**--**	**780**	**--**	**3,100 J**	<0.80U J	**7.3 J**	**2,800 J**	**8,900 J**
W-308	Supplementary	Alluvial	CH-CCR-W308-0420	4/17/2020	**0.50**	**--**	**760**	**--**	**2,900**	<0.8	**7.3 J**	**2,500**	**8,600**
W-308	Supplementary	Alluvial	CH-CCR-W308-1020	10/24/2020	**0.41**	**--**	**820**	**--**	**3,400**	**0.48 J**	**7.0 J**	**2,800**	**8,700**
W-308	Supplementary	Alluvial	CH-CCR-W308-0421	4/18/2021	**0.42**	**--**	**840**	**--**	**3,400**	**0.46 J**	**7.2 J**	**2,700**	**8,800**
W-308	Supplementary	Alluvial	CH-CCR-W308-1021	10/28/2021	**0.41**	**--**	**820**	**--**	**3,200**	**0.54 J**	**7.3 J**	**2,500**	**7,900**
W-308	Supplementary	Alluvial	CH-CCR-W308-0522	5/12/2022	**0.42**	--	**840**	--	**4,300**	**0.40 J**	**7.5 J**	**4,100**	**9,900**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
W-308	Supplementary	Alluvial	CH-CCR-W308-1022	10/26/2022	**0.42**	--	**870**	--	**3,500**	<0.8	**7.3 J**	**2,700**	**9,400**
W-308	Supplementary	Alluvial	CH-CCR-W308-0423	04/20/2023	**0.45**	**--**	**850**	**--**	**3,100**	<4	**7.5 J**	**2,600**	**8,800**
W-308	Supplementary	Alluvial	CH-CCR-W308-1023	10/12/2023	**0.41**	--	**810**	--	**3,400**	**0.54**	**7.3 J**	**2,600**	**9,100**
W-308	Supplementary	Alluvial	CH-CCR-W308-0424	04/22/2024	**0.45**	--	**820**	--	**3,100**	<0.4	**7.4 J**	**2,400**	**9,000**
W-308	Supplementary	Alluvial	CH-CCR-W308-1024	10/22/2024	**0.456**	--	**669**	--	**3,190**	<0.761	**7.62 J**	**2,880**	**8,740**
W-309	Supplementary	Alluvial	CH-CCR-W309-12818	12/8/2018	**0.42**	**--**	**280**	**--**	**1,300**	**1.0 J,U J**	**8.1 J**	**2,900**	**6,500**
W-309	Supplementary	Alluvial	CH-CCR-W309-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	**1.1**	**--**	**--**	**--**
W-309	Supplementary	Alluvial	CH-CCR-W309-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	**1.0**	**--**	**--**	**--**
W-309	Supplementary	Alluvial	CH-APP-W309-62519	6/25/2019	**0.46**	**--**	**450**	**--**	**1,600**	**1.2**	**7.5**	**3,000**	**7,100**
W-309	Supplementary	Alluvial	CH-CCR-W309-8819	8/8/2019	**0.50**	**--**	**470**	**--**	**1,600**	**1.1**	**7.5 J**	**3,200**	**7,300**
W-309	Supplementary	Alluvial	CH-CCR-W309-102419	10/24/2019	**0.45**	**--**	**430**	**--**	**1,600 J**	**1.1 J**	**7.5 J**	**3,300 J**	**7,100 J**
W-309	Supplementary	Alluvial	CH-CCR-W309-0520	5/4/2020	**0.46**	**--**	**440**	**--**	**1,500**	**1.2**	**7.5 J**	**3,200**	**7,200**
W-309	Supplementary	Alluvial	CH-CCR-W309-1020	10/24/2020	**0.43**	**--**	**450**	**--**	**1,700**	**1.1**	**7.2 J**	**3,400**	**7,100**
W-309	Supplementary	Alluvial	CH-CCR-W309-0421	4/18/2021	**0.45**	**--**	**470**	**--**	**1,500**	**1.0**	**7.4 J**	**3,200**	**7,300**
W-309	Supplementary	Alluvial	CH-CCR-W309-1021	10/27/2021	**0.46**	**--**	**460**	**--**	**1,500**	**1.3**	**7.5 J**	**3,100**	**6,900**
W-309	Supplementary	Alluvial	CH-CCR-W309-0522	5/12/2022	**0.46**	--	**450**	--	**1,800**	**1.3**	**7.7 J**	**4,700**	**6,400**
W-309	Supplementary	Alluvial	CH-CCR-W309-0423	04/20/2023	**0.49**	**--**	**470**	**--**	**1,600**	<4	**7.5 J**	**3,100**	**7,200**
W-309	Supplementary	Alluvial	CH-CCR-W309-1023	10/12/2023	**0.45**	--	**460**	--	**1,600**	**1.1**	**7.6 J**	**3,200**	**7,200**
W-309	Supplementary	Alluvial	CH-CCR-W309-0424	04/22/2024	**0.53**	--	**530**	--	**1,500**	**1.0**	**7.7 J**	**3,000**	**6,800**
W-309	Supplementary	Alluvial	CH-CCR-W309-1224	12/13/2024	**0.521**	--	**460**	--	**1,570**	**1.1**	**7.79 J**	**3,250**	**7,100**
W-317	Supplementary	Alluvial	CH-CCR-W317-33019	3/30/2019	**0.20**	**--**	**320**	**--**	**1,400**	<0.40	**7.5 J**	**670**	**3,300**
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD03-41719	4/17/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-317	Supplementary	Alluvial	CH-CCR-W317-41719	4/17/2019	**--**	**--**	**--**	**--**	**--**	<0.80	**--**	**--**	**--**
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD01-8819	8/8/2019	**0.48**	**--**	**450**	**--**	**1,600**	**1.0**	**7.5 J**	**3,200**	**7,200**
W-317	Supplementary	Alluvial	CH-CCR-W317-8919	8/9/2019	**0.22**	**--**	**360**	**--**	**1,500**	<0.4	**7.4 J**	**700**	**3,400**
W-317	Supplementary	Alluvial	CH-CCR-W317-102419	10/24/2019	**0.21**	**--**	**340**	**--**	**1,400 J**	<0.40U J	**7.5 J**	**680 J**	**3,400 J**
W-317	Supplementary	Alluvial	CH-CCR-W317-0420	4/16/2020	**0.21**	**--**	**350**	**--**	**1,500**	<0.8	**7.5 J**	**730**	**3,700**
W-317	Supplementary	Alluvial	CH-CCR-W317-1020	10/21/2020	**0.20**	**--**	**350**	**--**	**1,500**	**0.36 J**	**7.6 J**	**680**	**3,500**
W-317	Supplementary	Alluvial	CH-CCR-W317-0421	4/14/2021	**0.19**	**--**	**340**	**--**	**1,400**	**0.35 J**	**7.6 J**	**700**	**2,900**
W-317	Supplementary	Alluvial	CH-CCR-W317-1021	10/21/2021	<0.2	**--**	**350**	**--**	**1,500**	**0.34 J**	**7.5 J**	**750**	**3,600 J**
W-317	Supplementary	Alluvial	CH-CCR-W317-0422	4/26/2022	**0.21**	**--**	**370**	**--**	**1,500**	**0.35 J**	**7.5 J**	**690**	**3,700**
W-317	Supplementary	Alluvial	CH-CCR-W317-1022	10/19/2022	**0.22**	--	**380**	--	**1,500**	<0.8	**7.5 J**	**680**	**3,400**
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1022	10/19/2022	**0.24**	--	**400**	--	**--**	**--**	**7.5 J**	**--**	**3,800**
W-317	Supplementary	Alluvial	CH-CCR-W317-1022-SD	10/19/2022	--	--	--	--	--	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-0423	04/14/2023	**0.22 J**	**--**	**410**	**--**	**1,600**	<2	**7.4 J**	**690 J**	**7000 J**
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-0423	04/14/2023	**0.22 J**	**--**	**410**	**--**	**1,600**	<2	**7.6 J**	**690 J**	**7000 J**
W-317	Supplementary	Alluvial	CH-CCR-W317-1023	10/11/2023	**0.18**	--	**0.5**	--	**1,600 J**	<0.4	**7.6 J**	**650 J**	**3,700**
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1023	10/11/2023	**0.19**	--	**350**	--	**78 J**	<0.4	**7.6 J**	**33 J**	**3,800**
W-317	Supplementary	Alluvial	CH-CCR-W317-0424	04/17/2024	**0.20**	--	**350**	--	**1,500 J**	<0.4	**7.7 J**	**610**	**3,600 J**
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-0424	04/17/2024	**0.20**	--	**380**	--	**3,700 J**	<0.4	**7.7 J**	**610**	**3,700 J**
W-317	Supplementary	Alluvial	CH-CCR-W317-1024	10/17/2024	**0.199**	--	**322**	--	**1,630**	<0.38	**7.98 J**	**688**	**3,670 J**
W-317	Supplementary	Alluvial	CH-CCR-FD04-1024	10/17/2024	**0.214**	--	**304**	--	**1,630**	**0.393**	**7.63 J**	**652**	**3,130 J**
BAP	Supplementary	Surface Pond	CH-BAP-01052012	1/5/2012	**5.0**	**--**	--	--	**2,800**	<4.0	**8.05**	**3,300**	**8,600**
BAP	Supplementary	Surface Pond	CH-BAP-11072012	11/7/2012	**6.7**	**--**	**690**	**--**	**2,600**	**5.9**	--	**3,400**	**8,800**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
BAP	Supplementary	Surface Pond	CH-BAP-1172012	11/7/2012	**5.7**	**--**	**770**	**--**	**3,200**	**4.8**	--	**3,200**	**9,700**
BAP	Supplementary	Surface Pond	CH-BAP-031313	3/13/2013	--	--	--	--	**2,010**	--	--	**2,700**	--
BAP	Supplementary	Surface Pond	CH-BAP-031313_C26660-1	3/13/2013	--	--	**563**	**--**	--	**3.5**	**7.51**	--	**7,130**
BAP	Supplementary	Surface Pond	CH-BAP-0913	9/18/2013	--	--	--	--	**2,200**	--	--	**2,800**	--
BAP	Supplementary	Surface Pond	CH-BAP-0913_C29829-10	9/18/2013	--	--	**562**	**--**	--	**3.9**	**8.46**	--	**7,400**
BAP	Supplementary	Surface Pond	CH-BAP-0514	5/22/2014	--	--	--	--	**2,400**	--	--	**3,300**	--
BAP	Supplementary	Surface Pond	CH-BAP-0514_C34218-6	5/22/2014	--	--	**645**	**--**	--	**4.1**	**8.01**	--	**10,600**
BAP	Supplementary	Surface Pond	CH-BAP-1014	10/13/2014	--	--	**564**	**--**	**2,170**	**4.2**	**8.11**	**3,060**	**8,350**
BAP	Supplementary	Surface Pond	CH-BAP-0515	5/4/2015	--	--	**523**	**--**	**1,710**	**3.8**	**8.06**	**2,590**	**6,880**
BAP	Supplementary	Surface Pond	CH-APP-BP-1016	10/12/2016	--	--	--	--	**1,900**	**5.8**	**8.8**	**3,300**	**8,000**
BAP	Supplementary	Surface Pond	CH-APP-BAP-60717	6/7/2017	--	--	--	--	**1,800**	**4.6**	**8.8**	**3,300**	**7,200**
BAP	Supplementary	Surface Pond	CH-APP-BAP-10617	10/6/2017	--	--	--	--	**1,900**	**4.1**	**8.6**	**3,100**	**7,500**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-33019	3/30/2019	**4.8**	**--**	**550**	**--**	**2,100**	**3.7**	**8.3 J**	**3,100**	**7,700**
BAP	Supplementary	Surface Pond	CH-APP-BAP-42919	4/29/2019	--	--	--	--	**2,100**	**3.7**	**8.2 J**	**3,100**	**8,200**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0421	4/16/2021	**3.4**	**--**	**560**	**--**	**1,800**	**3.3**	**8.9 J**	**2,900**	**6,800**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1021	10/31/2021	**3.2**	**--**	**540**	**--**	**1,800**	**3.9**	**8.4 J**	**2,900**	**6,400**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0422	4/21/2022	**3.1**	**--**	**530**	**--**	**1,700**	**3.5**	**8.4 J**	**2,700**	**6,500**
BAP	Supplementary	Surface Pond	CH-CCR-SS07-0422	4/21/2022	**3.61**	**--**	**688**	**--**	**1,700**	**3.21/2.72 J**	**8.4 J**	**2,640**	**6,640**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1022	10/26/2022	**3.2**	--	**580**	--	**1,900**	**3.0**	**8.5 J**	**3,100**	**7,100**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0423	04/26/2023	**3.4**	**--**	**590**	**--**	**1,800**	<4	**8.3 J**	**2,800**	**6,500**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1023	10/13/2023	**4.7**	--	**560**	--	**1,900**	**4.3**	**8.3 J**	**3,100**	**7,600**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0424	05/01/2024	**3.5**	--	**550**	--	**1,700**	**2.6**	**8.7 J**	**2,500**	**7,000**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1024	11/14/2024	**3.67**	--	**490**	--	**1,440**	**1.65**	**8.05 J**	**2,330**	**6,770**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0421	4/17/2021	**4.3**	**--**	**700**	**--**	**2,700**	**3.1**	**7.6 J**	**3,200**	**8,700**
BAP Toe Drain	Supplementary	Seepage	*DUP* CH-CCR-FD04-0421	4/17/2021	**4.3**	**--**	**710**	**--**	**2,600**	**3.1**	**7.5 J**	**3,100**	**8,200**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1021	10/30/2021	**4.7**	**--**	**720**	**--**	**2,600**	**3.3**	**7.5 J**	**3,000**	**8,100**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0422	4/21/2022	**4.3**	**--**	**670**	**--**	**2,700**	**2.7**	**7.5 J**	**3,200**	**8,400**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1022	10/27/2022	**4.8**	--	**750**	--	**2,900**	**2.8**	**7.4 J**	**3,500**	**9,000**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0423	04/26/2023	**4.7**	**--**	**710**	**--**	**2,500**	<4	**7.6 J**	**3,200**	**8,300**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1023	10/24/2023	**4.9**	--	**700**	--	**2,400**	**2.5**	**7.5 J**	**3,100**	**8,700**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0424	05/28/2024	**4.3**	--	**720**	--	**2,000**	**1.9**	**7.4 J**	**2,700**	**7,700**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1024	11/14/2024	**4.15**	--	**556**	--	**2,020**	**1.25**	**7.90 J**	**2,720**	**7,940**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0421	4/16/2021	**3.6**	**--**	**720**	**--**	**2,300**	**3.6**	**7.4 J**	**3,200**	**7,900**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-1021	10/30/2021	**3.6**	**--**	**670**	**--**	**2,100**	**3.6**	**7.5 J**	**2,900**	**7,100**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0422	4/21/2022	**3.7**	**--**	**680**	**--**	**2,200**	**3.4**	**7.5 J**	**3,100**	**7,600**
Petroglyph	Supplementary	Seepage	CH-CCR-SS08-0422	4/21/2022	**2.94**	**--**	**521**	**--**	**2,160**	**3.21/3.14 J**	**8.0 J**	**3,010**	**7,930**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-1022	10/27/2022	**3.8**	--	**700**	--	**2,200**	**3.2**	**7.4 J**	**3,300**	**7,400**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0423	04/26/2023	**3.8**	**--**	**680**	**--**	**2,100**	<4	**7.3 J**	**3,100**	**7,400**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-1023	10/24/2023	**4.0**	--	**700**	--	**2,200**	**2.9**	**7.4 J**	**3,000**	**8,100**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0424	05/01/2024	**3.6**	--	**660**	--	**2,000**	**2.7**	**7.7 J**	**2,800**	**5,200**
Petroglyph	Supplementary	Seepage	CH-CCR-PETRO-1024	11/13/2024	**3.66**	--	**631**	--	**2,180**	**2.24**	**7.74 J**	**3,210**	**7,760**
Tanner Wash Seep	Supplementary	Seepage	CH-TANNERS-0520	5/8/2020	**4.0**	**--**	**680**	**--**	**2,200**	**3.8**	**7.4 J**	**3,100**	**8,500**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TanWash-0421	4/16/2021	**4.1**	**--**	**730**	**--**	**2,300**	**4.0**	**7.2 J**	**3,300**	**7,900**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TanWash-1021	10/30/2021	**4.0**	**--**	**670**	**--**	**2,300**	**3.6**	**7.4 J**	**3,100**	**7,700**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-0422	4/21/2022	**4.2**	**--**	**650**	**--**	**2,200**	**3.6**	**7.5 J**	**3,300**	**7,700**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-1022	10/27/2022	**4.2**	--	**750**	--	**2,300**	**3.6**	**7.5 J**	**3,400**	**7,900**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-0423	04/26/2023	**4.4**	**--**	**670**	**--**	**2,300**	<8	**7.3 J**	**3,200**	**7,900**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-1023	10/24/2023	**4.2**	--	**690**	--	**2,100**	**32**	**7.3 J**	**3,000**	**7,700**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-0424	05/01/2024	**3.8**	--	**640**	--	**2,000**	**3.1**	**7.6 J**	**2,900**	**7,400**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TANNER-1024	11/13/2024	**3.72**	--	**618**	--	**2,160**	**3.22**	**7.57 J**	**3,330**	**7,700**
TWX-03	Supplementary	Seepage	CH-CCR-P226A-0621	6/1/2021	**3.7**	**--**	**710**	**--**	**2,100**	**3.3**	**7.6 J**	**3,000**	**7,200**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-1021	10/31/2021	**3.5**	**--**	**670**	**--**	**2,200**	**2.8**	**7.5 J**	**3,000**	**7,000**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-0522	05/03/2022	**3.3**	--	**650**	--	**2,100**	**3.1**	**7.5 J**	**3,100**	**7,100**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-1022	10/27/2022	**3.7**	--	**740**	--	**2,200**	**3.0**	**7.4 J**	**3,300**	**7,000**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-0423	04/26/2023	**3.7**	**--**	**680**	**--**	**2,300**	<8	**7.3 J**	**3,100**	**8,100**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-1023	10/24/2023	**3.9**	--	**680**	--	**2,100**	**2.8**	**7.4 J**	**3,000**	**7,700**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-0424	05/28/2024	**4.1**	--	**710**	--	**2,000**	**2.7**	**7.1 J**	**2,800**	**7,700**
TWX-03	Supplementary	Seepage	CH-CCR-TWX10-1024	11/13/2024	**3.03**	--	**568**	--	**2,200**	**1.68**	**7.72 J**	**3,290**	**9,400**
TWX-04	Supplementary	Seepage	CH-CCR-P226B-0621	6/1/2021	**3.8**	**--**	**690**	**--**	**2,300**	**3.0**	**7.7 J**	**3,300**	**7,300**
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-1021	10/31/2021	**3.8**	**--**	**670**	**--**	**2,400**	**3.1**	**7.6 J**	**3,300**	**6,600**
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-0522	05/03/2022	**3.3**	--	**640**	--	**2,200**	**3.1**	**7.6 J**	**3,100**	**7,200**
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-1022	10/27/2022	**4.0**	--	**700**	--	**2,200**	**3.0**	**7.6 J**	**3,300**	**8,100**
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-0424	05/01/2024	**3.6**	--	**640**	--	**1,900**	**2.7**	**7.6 J**	**2,800**	**7,600**
TWX-04	Supplementary	Seepage	CH-CCR-TWX3-1024	11/13/2024	**3.2**	--	**648**	--	**2,270**	**1.79**	**7.59 J**	**3,160**	**8,020**
TWX-05	Supplementary	Seepage	CH-CCR-P226C-0621	6/1/2021	**3.5**	**--**	**710**	**--**	**2,100**	**2.7**	**7.7 J**	**2,900**	**7,600**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-1021	10/31/2021	**3.8**	**--**	**650**	**--**	**2,400**	**3.1**	**7.5 J**	**3,300**	**7,200**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-0522	05/03/2022	**3.4**	--	**670**	--	**2,200**	**3.1**	**7.5 J**	**3,100**	**7,900**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-1022	10/27/2022	**3.9**	--	**700**	--	**2,200**	**2.9**	**7.5 J**	**3,300**	**7,000**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-0423	04/26/2023	**3.6**	**--**	**710**	**--**	**2,300**	<8	**7.4 J**	**3,100**	**8,000**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-1023	10/24/2023	**4.0**	--	**690**	--	**2,000**	**2.8**	**7.3 J**	**2,900**	**7,700**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-0424	05/01/2024	**3.7**	--	**650**	--	**1,900**	**2.9**	**7.7 J**	**2,900**	**7,400**
TWX-05	Supplementary	Seepage	CH-CCR-TWX4-1024	11/13/2024	**2.8**	--	**629**	--	**2,330**	**1.44**	**7.76 J**	**3,330**	**7,820**
TWX-06	Supplementary	Seepage	CH-CCR-P226D-0621	6/1/2021	**3.4**	**--**	**670**	**--**	**2,100**	**2.7**	**7.6 J**	**3,000**	**7,200**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-1021	10/31/2021	**3.3**	**--**	**650**	**--**	**2,200**	**3.0**	**7.5 J**	**3,100**	**7,100**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-0522	05/03/2022	**3.4**	--	**650**	--	**2,500**	**2.9**	**7.6 J**	**3,500**	**7,500**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-1022	10/27/2022	**3.5**	--	**700**	--	**2,200**	**2.5**	**7.5 J**	**3,200**	**7,300**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-0423	04/26/2023	**3.8**	**--**	**710**	**--**	**2,300**	<8	**7.5 J**	**3,100**	**7,400**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-1023	11/21/2023	**3.9**	**--**	**690**	**--**	**2,100**	**2.6**	**7.5 J**	**3,000**	**7,600**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-0424	05/01/2024	**3.6**	--	**660**	--	**2,000**	**2.4**	**7.6 J**	**2,800**	**7,700**
TWX-06	Supplementary	Seepage	CH-CCR-TWX5-1024	11/13/2024	**3.51**	--	**647**	--	**2,190**	**1.69**	**7.75 J**	**3,200**	**8,000**
TWX-07	Supplementary	Seepage	CH-CCR-P226E-0621	6/1/2021	**1.1**	**--**	**720**	**--**	**2,800**	**1.9**	**7.8 J**	**3,000**	**8,000**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-1021	10/31/2021	**2.8**	**--**	**670**	**--**	**2,600**	**2.5**	**7.7 J**	**3,000**	**7,400**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-0522	05/03/2022	**3.3**	--	**640**	--	**2,400**	**2.9**	**7.6 J**	**3,300**	**7,600**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-1022	10/27/2022	**3.6**	--	**710**	--	**2,200**	**2.4**	**7.4 J**	**3,200**	**7,400**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-0423	04/26/2023	**3.8**	**--**	**720**	**--**	**2,200**	<8	**7.3 J**	**3,100**	**7,800**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-1023	10/24/2023	**3.9**	--	**690**	--	**2,100**	**2.7**	**7.5 J**	**2,900**	**7,700**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-0424	05/01/2024	**3.5**	--	**670**	--	**2,100**	**2.1**	**7.4 J**	**2,800**	**7,700**
TWX-07	Supplementary	Seepage	CH-CCR-TWX6-1024	11/13/2024	**2.87**	--	**605**	--	**2,340**	**2.4**	**7.70 J**	**3,320**	**7,860**

Table C-4
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix III Constituents

					Appendix III Constituents								
				Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	Y	N	Y	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAP GWPS	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**									
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-1021	10/31/2021	**2.9**	--	**650**	--	**4,000**	**2.2**	**7.5 J**	**6,300**	**6,300**
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-0522	05/03/2022	**3.2**	--	**640**	--	**2,200**	**2.2**	**7.6 J**	**3,000**	**8,300**
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-1022	10/27/2022	**3.2**	--	**710**	--	**2,300**	**2.3**	**7.5 J**	**3,200**	**7,600**
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-0424	05/01/2024	**3.3**	--	**650**	--	**2,200**	**2.1**	**7.6 J**	**2,800**	**7,300**
TWX-08	Supplementary	Seepage	CH-CCR-TWX7-1024	11/13/2024	**3.12**	--	**571**	--	**2,300**	**1.54**	**7.59 J**	**3,300**	**7,880**
TWX-09	Supplementary	Seepage	CH-CCR-P226G-0621	6/1/2021	**0.37**	--	**760**	--	**3,000**	**0.76 J**	**7.8 J**	**2,900**	**8,200**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-1021	10/31/2021	**2.8**	--	**690**	--	**2,700**	**2.6**	**7.7 J**	**4,100**	**6,900**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-0522	05/03/2022	**2.9**	--	**730**	--	**2,800**	**2.3**	**7.7 J**	**3,200**	**7,300**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-1022	10/27/2022	**3.4**	--	**740**	--	**2,500**	**2.1**	**7.5 J**	**3,200**	**8,700**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-0423	04/26/2023	**3.4**	--	**710**	--	**2,700**	<20	**7.6 J**	**3,100**	**8,300**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-1023	10/24/2023	**2.7**	--	**770**	--	**2,600**	**1.3**	**7.7 J**	**2,900**	**8,600**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-0424	05/01/2024	**3.1**	--	**700**	--	**2,200**	**1.5**	**7.8 J**	**2,800**	**8,000**
TWX-09	Supplementary	Seepage	CH-CCR-TWX8-1024	11/13/2024	**2.89**	--	**573**	--	**2,300**	**1.59**	**7.71 J**	**3,160**	**7,920**
TWX-10	Supplementary	Seepage	CH-CCR-P226H-0621	6/1/2021	**0.32**	--	**730**	--	**3,200**	**0.48 J**	**7.9 J**	**3,000**	**8,700**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-1021	10/31/2021	**0.61**	--	**840**	--	**9,400**	**0.62 J**	**7.6 J**	**7,000**	**14,000**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-0522	05/03/2022	**0.37**	--	**740**	--	**3,600**	**0.74 J**	**7.6 J**	**3,100**	**9,000**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-1022	10/27/2022	**0.33**	--	**770**	--	**3,600**	<0.8	**7.5 J**	**3,200**	**11,000**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-0423	04/26/2023	**0.37**	--	**760**	--	**3,300**	<8	**7.7 J**	**3,000**	**9,600**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-1023	10/24/2023	**0.37**	--	**750**	--	**3,100**	**0.45**	**7.7 J**	**2,800**	**9,300**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-0424	05/01/2024	**0.39**	--	**720**	--	**3,700**	<0.4	**7.8 J**	**2,700**	**10,000**
TWX-10	Supplementary	Seepage	CH-CCR-TWX9-1024	11/13/2024	**0.41**	--	**624**	--	**3,510**	**0.452 J**	**7.64 J**	**3,160**	**7,980**

Notes:

GWPS exceedences are shown in red text.

Duplicate sample dates under the same location are either field duplicates or are instances of samples with multiple field/lab sample IDs on the same date.

[1] In previous documents TDX-3 is also known as BSX-01, TDX-4 is also known as BSX-02, and TDX-5 is also known as BSX-03.

Abbreviations and Data Qualifiers:

< = less than

BAP = Bottom Ash Pond

BTV = Background Threshold Value

CCR = Coal Combustion Residual

degrees C = degrees Celsius

GWPS = Groundwater Protection Standard

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

mg/L = milligrams per liter

pCi/L = Picocuries per liter

su = standard units

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table C-5
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																											
			Constituent:		Antimony	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Molybdenum	Molybdenum	Selenium	Selenium	Thallium	Thallium	Total Radium
			Filtered:		N	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	Y	N	Y	N	Y	N
			Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAP GWPS	*0.006*	*0.006*	*0.01*	*0.01*	*2*	*2*	*0.004*	*0.005*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.015*	*0.418*	*0.002*	*0.1*	*0.1*	*0.05*	*0.05*	*0.002*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																												
M-64A	Background	Alluvial	CH-CCR-M100-217	2/20/2017	<0.0010	--	0.00087	--	0.036	--	<0.0010	0.00011	--	0.0018	--	0.0024	--	<8.0	<0.00050	--	0.26	<0.00020	0.0065	--	0.00074	--	<0.00010	--	0.8
M-64A	Background	Alluvial	CH-CCR-M64A-217	2/20/2017	<0.0010	--	0.00094	--	0.034	--	<0.0010	<0.00010	--	0.0021	--	0.0015	--	<0.80	<0.00050	--	0.27	<0.00020	0.0061	--	0.00082	--	<0.00010	--	<0.6
M-64A	Background	Alluvial	CH-CCR-FD02-41217	4/12/2017	<0.0010	--	0.0026	--	0.019	--	<0.0010	<0.00010	--	0.00078	--	0.00082	--	<2.0	<0.00050	--	0.25	<0.00020	0.0053	--	<0.00050	--	<0.00010	--	0.8
M-64A	Background	Alluvial	CH-CCR-M64A-41217	4/12/2017	<0.0010	--	0.0026	--	0.019	--	<0.0010	<0.00010	--	0.0015	--	0.00068	--	<0.80	0.00071	--	0.25	<0.00020	0.0050	--	<0.00050	--	<0.00010	--	<0.6
M-64A	Background	Alluvial	CH-CCR-M64A-42517	4/25/2017	<0.0010	--	0.0017	--	0.015	--	<0.0010	<0.00010	--	<0.00050	--	0.00056	--	<0.80	<0.00050	--	0.27	<0.00020	0.0050	--	<0.00050	--	<0.00010	--	1.6
M-64A	Background	Alluvial	CH-CCR-M64A-51817	5/18/2017	<0.0010	--	0.0016	--	0.012	--	<0.0010	<0.00010	--	<0.00050	--	<0.00050	--	<0.80	<0.00050	--	0.28	<0.00020	0.0042	--	<0.00050	--	<0.00010	--	1.3
M-64A	Background	Alluvial	CH-CCR-FD01-52417	5/24/2017	<0.0010	--	0.0023	--	0.014	--	<0.0010	<0.00010	--	0.00063	--	0.00052	--	<0.80	<0.0020	--	0.27	<0.00020	0.0050	--	<0.00050	--	<0.00040	--	1.1
M-64A	Background	Alluvial	CH-CCR-M64A-52417	5/24/2017	<0.0010	--	0.0019	--	0.014	--	<0.0010	<0.00010	--	<0.00050	--	<0.00050	--	<0.80	<0.0020	--	0.27	<0.00020	0.0051	--	<0.00050	--	<0.00040	--	0.4
M-64A	Background	Alluvial	CH-CCR-M64A-63017	6/30/2017	<0.0010	--	0.0033	--	0.017	--	<0.0010	<0.00010	--	<0.00050	--	0.0011	--	<0.80	<0.00050	--	0.25	<0.00020	0.0050	--	<0.00050	--	<0.00010	--	<0.7
M-64A	Background	Alluvial	CH-CCR-FD01-72717	7/27/2017	<0.0020	--	0.0027	--	0.017	--	<0.0010	<0.00020	--	<0.0010	--	<0.0010	--	<0.80	<0.0010	--	0.25	<0.00020	0.0051	--	<0.0010	--	<0.00020	--	<0.7
M-64A	Background	Alluvial	CH-CCR-M64A-72717	7/27/2017	<0.0020	--	0.0028	--	0.017	--	<0.0010	<0.00020	--	<0.0010	--	<0.0010	--	<0.80	<0.0010	--	0.25	<0.00020	0.0051	--	<0.0010	--	<0.00020	--	<0.7
M-64A	Background	Alluvial	CH-CCR-M64A-90717	9/7/2017	<0.0040	--	0.0025	--	0.017	--	<0.0010	<0.00040	--	<0.0040	--	<0.0020	--	<0.80	<0.0020	--	0.26	<0.00020	0.0059	--	<0.0020	--	<0.00040	--	<0.7
M-64A	Background	Alluvial	CH-CCR-M64A-120817	12/8/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.80	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-21518	2/15/2018	<0.0020	--	<0.0010	--	0.015	--	<0.0010	--	<0.00020	0.0022	--	<0.00050	--	<0.80	<0.0010	--	0.27	<0.00020	0.0058	--	<0.00050	--	<0.00020	--	0.966
M-64A	Background	Alluvial	CH-CCR-M-64A-51918	5/19/2018	<0.0020	--	0.0012	--	0.012	--	--	--	<0.00020	<0.0020	--	<0.0010	--	<0.80	<0.0010	--	0.26	--	0.0055	--	<0.0010	--	<0.00020	--	<0.7
M-64A	Background	Alluvial	CH-CCR-M-64A-102218	10/22/2018	--	--	0.0013	--	0.011	--	--	--	<0.00010	<0.0010	--	<0.00050	--	<0.80	<0.00050	--	0.25	--	0.0052	--	<0.00050	--	<0.00010	--	--
M-64A	Background	Alluvial	*DUP* CH-CCR-FD-01-102218	10/22/2018	--	--	0.0011	--	0.011	--	--	--	<0.00010	<0.0010	--	<0.00050	--	<2.0	<0.00050	--	0.25	--	0.0050	--	<0.00050	--	<0.00010	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-21319	2/13/2019	<0.0010	--	0.00089	--	0.012	--	<0.0010	--	<0.00010	<0.0010	--	<0.00050	--	<0.80	<0.00050	--	0.29	<0.00020	0.0049	--	0.00052	--	<0.00010	--	<0.6
M-64A	Background	Alluvial	CH-CCR-M64A-41119	4/11/2019	--	--	0.00058	--	0.011	--	--	--	<0.0001	<0.001	--	<0.0005	--	<0.80	<0.0005	--	0.27	--	0.0050	--	0.00053	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-41619	4/16/2019	--	--	0.00058	--	0.012	--	--	--	<0.00010	<0.0010	--	<0.00050	--	<0.80	<0.00050	--	0.25	--	0.0050	--	0.00078	--	<0.00010	--	<0.7
M-64A	Background	Alluvial	CH-CCR-M64A-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	*DUP* CH-CCR-FD01-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-102419	10/24/2019	<0.0020	--	0.0018	--	0.013 J	--	<0.0010	--	<0.00020	<0.0020	--	<0.0010	--	<0.80	<0.0010	--	0.26	<0.00020	0.0059	--	<0.0010	--	<0.00020	--	--
M-64A	Background	Alluvial	CH-CCR-M64-0520	5/6/2020	--	--	0.00086	0.00050	0.013	--	<0.001	--	<0.0001	<0.001	--	<0.0005	<0.0005	<0.8	<0.0005	--	0.47	--	0.0042	--	<0.001	--	--	--	<0.8
M-64A	Background	Alluvial	*DUP* CH-CCR-FD05-0520	5/6/2020	--	--	<0.001	0.00093	0.012	--	<0.001	--	<0.0001	<0.002	--	<0.001	<0.0005	<0.8	<0.0005	--	0.47	--	0.0043	--	<0.001	--	--	--	<0.8
M-64A	Background	Alluvial	CH-CCR-M64-1020	10/24/2020	<0.002	--	0.0036	<0.002	0.012	--	<0.001	--	<0.0002	<0.002	--	0.00025	<0.002	0.28	0.0010	--	0.31	<0.0002	0.0051	--	0.0044	--	<0.0002	--	<0.8
M-64A	Background	Alluvial	CH-CCR-M64-0421	4/15/2021	<0.002	--	0.0021	0.0027	0.012	--	<0.001	--	<0.0002	<0.002	--	<0.001	<0.001	0.21 J	<0.001	--	0.30	<0.0002	0.0049	--	0.0022	--	<0.0002	--	<0.7
M-64A	Background	Alluvial	CH-CCR-M64-1021	10/22/2021	0.00013 J	--	<0.0005	0.0015	0.012	--	<0.001	--	0.000036 J	0.0005 J	--	<0.0005	0.000091 J	0.38 J	<0.0005	--	0.28	<0.0002	0.0046	--	0.0002 J	--	<0.0001	--	<0.6
M-64A	Background	Alluvial	CH-CCR-M64A-0422	4/26/2022	0.000054 J	--	0.0015	0.0018	0.011	--	<0.001	--	<0.0001	<0.001	--	<0.0005	<0.0005	0.34 J	<0.0005	--	0.28	<0.0002	0.0041	--	0.00075	--	<0.0001	--	1.0
M-64A	Background	Alluvial	CH-CCR-M64A-1022	10/22/2022	<0.001	--	0.00094	0.00076	0.013	--	<0.001	<0.0001	--	<0.001	--	<0.0005	<0.0005	<0.8	<0.0005	--	0.25	<0.0002	0.042	--	0.00067	--	<0.0001	--	<0.6
M-64A	Background	Alluvial	CH-CCR-M64A-0423	04/17/2023	<0.01	--	0.0037	<0.005	0.014	--	<0.001	<0.001	--	<0.01	--	<0.005	<0.005	<10	<0.005	--	0.29	<0.0002	0.0044 J	--	<0.005	--	<0.001	--	0.5
M-64A	Background	Alluvial	CH-CCR-M64A-1023	10/11/2023	<0.01	--	0.0073	0.0071	0.012	--	<0.001	<0.001	--	<0.01	--	<0.005	<0.005	<0.4	<0.005	--	0.28	<0.0002	<0.005	--	<0.005	--	<0.001	--	0.7
M-64A	Background	Alluvial	CH-CCR-M64A-0424	04/18/2024	<0.001	--	0.0016	0.0014	0.012	--	<0.001	<0.0001	--	<0.001	--	<0.0005	<0.0005	<0.4	<0.0005	--	<0.4	<0.0002	0.0040	--	0.0012	--	<0.0001	--	<0.8
M-64A	Background	Alluvial	CH-CCR-M64A-0524	05/28/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-MW64A-1024	10/30/2024	<0.0025	--	<0.0025	<0.0025	0.0123	--	<0.00044	<0.0004	--	<0.01	--	<0.0025	<0.0025	0.798 J	<0.0025	--	0.223	<0.0002	0.0033	--	<0.0025	--	<0.00013	--	0.7
M-52A	Downgradient	Alluvial/Moqui	7879	12/1/2015	<0.0025	--	0.00050	--	0.027	--	<0.0010	0.00071	--	0.0014	--	0.060	--	0.53	<0.00050	--	0.27	<0.00020	0.021	--	0.00074	--	<0.00010	--	0.4
M-52A	Downgradient	Alluvial/Moqui	CH-M-52A-0316	3/9/2016	<0.015	--	<0.0049	--	0.022	--	<0.0010	0.0012 J	--	<0.0087	--	0.054	--	<2.0	<0.0044	--	0.25	<0.00020	0.016	--	<0.0015	--	0.0015 J	--	<0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-516	5/10/2016	<0.00020	--	<0.0010	--	0.023	--	<0.0010	0.00048	--	<0.0010	--	0.043	--	<2.0	<0.0010	--	0.28	<0.00020	0.013	--	<0.0010	--	<0.00020	--	<0.4
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-816	8/26/2016	0.00012	--	<0.00050	--	0.024	--	<0.0010	0.0013	--	0.0012	--	0.061	--	0.97	<0.00050	--	0.24	<0.00020	0.040	--	0.00057	--	<0.00010	--	0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-916	9/22/2016	<0.00050	--	0.00047	--	0.019	--	<0.0010	0.0014	--	0.0011	--	0.054	--	0.89	0.00048	--	0.24	<0.00020	0.050	--	<0.00060	--	0.00011	--	0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M101-217	2/21/2017	<0.0010	--	0.00061	--	0.016	--	<0.0010	0.00055	--	0.0042	--	0.044	--	0.98	<0.00050	--	0.26	<0.00020	0.020	--	0.00065	--	<0.00010	--	<0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-217	2/21/2017	<0.0010	--	0.00071	--	0.016	--	<0.0010	0.00051	--	0.0058	--	0.043	--	0.98	<0.00050	--	0.26	<0.00020	0.021	--	0.00078	--	<0.00010	--	<0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-41117	4/11/2017	<0.0010	--	0.00097	--	0.016	--	<0.0010	0.00048	--	0.019	--	0.045	--	0.80	<0.00050	--	0.24	<0.00020	0.018	--	0.00079	--	<0.00010	--	<0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-42517	4/25/2017	<0.0010	--	<0.00050	--	0.015	--	<0.0010	0.00049	--	0.014	--	0.041	--	0.99	<0.00050	--	0.26	<0.00020	0.018	--	<0.00050	--	<0.00010	--	0.9
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-51817	5/18/2017	<0.0010	--	0.00054	--	0.013	--	<0.0010	0.00052	--	0.016	--	0.037	--	0.86	<0.00050	--	0.27	<0.00020	0.017	--	0.00052	--	<0.00010	--	0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-52417	5/24/2017	<0.0010	--	0.00050	--	0.016	--	<0.0010	0.0006	--	0.034	--	0.044	--	0.96	<0.0020	--	0.26	<0.00020	0.024	--	0.00064	--	<0.00040	--	<0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-63017	6/30/2017	<0.0010	--	<0.00050	--	0.014	--	<0.0010	0.0013	--	0.0071	--	0.051	--	1.0	<0.00050	--	0.23	<0.00020	0.038	--	0.00051	--	<0.00010	--	<0.7
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-72817	7/28/2017	<0.0020	--	<0.0010	--	0.014	--	<0.0010	0.0018	--	0.0046	--	0.063	--	1.0	<0.0010	--	0.21	<0.00020	0.062	--	<0.0010	--	<0.00020	--	<0.7
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-90717	9/7/2017	<0.0040	--	<0.0020	--	0.014	--	<0.0010	0.0019	--	<0.0040	--	0.066	--	0.90	<0.0020	--	0.22	<0.00020	0.071	--	<0.0020	--	<0.00040	--	0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-120717	12/7/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	0.84	--	--	--	--	--	--	--	--	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-21518	2/15/2018	<0.0010	--	0.0018	--	0.017	--	<0.0010	0.0011	--	0.011	--	0.052	--	1.1	0.0010	--	0.25	<0.00020	0.048	--	0.00091	--	0.00018	--	0.9
M-52A	Downgradient	Alluvial/Moqui	--	5/20/2018	<0.0010	--	0.010	--	0.026	--	--	0.015	--	0.051	--	0.100	--	--	0.0027	--	0.25	--	0.11	--	0.0017	--	0.00017	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-6718	6/7/2018	<0.0010	--	0.0026	--	0.018	--	--	0.00094	--	0.018	--	0.062	--	0.99	0.0010	--	0.24	--	0.052	--	0.0013	--	0.00013	--	0.7
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M-52A-102418	10/24/2018	--	--	0.0025	--	0.016	--	--	0.0011	--	0.059	--	0.055	--	0.87	0.00057	--	0.24	--	0.061	--	0.00063	--	<0.00010	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-M-52A-102418	10/24/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-12818	12/8/2018	<0.0050	--	0.0022	--	0.019	--	--	<0.0010	--	0.043	--	0.036	--	1.0 J,UJ	<0.0010	--	0.29	<0.00020	0.031	--	<0.0060	--	<0.0010	--	<0.7
M-52A	Downgradient	Alluvial/Moqui	*DUP* CH-CCR-FD01-21519	2/15/2019	<0.0010	--	0.0018 J	--	0.016 J	--	<0.0010	0.00012	--	0.0015	--	0.022	--	<0.80	0.0024 J	--	0.22	<0.00020	0.026 J	--	0.00070	--	<0.00010	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-21519	2/15/2019	<0.0010	--	0.00077	--	0.015	--	<0.0010	0.00027	--	0.037	--	0.029	--	0.93	<0.00050	--	0.32	<0.00020	0.020	--	0.0015	--	<0.00010	--	<0.6
M-52A	Downgradient	Alluvial/Moqui	*DUP* CH-CCR-FD01-41619	4/16/2019	--	--	0.00057	--	0.012	--	--	<0.00010	--	<0.0010	--	<0.00050	--	<0.80	<0.00050	--	0.25	--	0.0051	--	<0.00050	--	<0.00010	--	<0.7
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-41619	4/16/2019	--	--	<0.00050	--	0.019	--	--	0.00047	--	0.080	--	0.027	--	1.1	<0.00050	--	0.30	--	0.021	--	0.0017	--	<0.00010	--	<0.7
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0	--	--	--	--	--	--	--	--	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-102419	10/24/2019	<0.0020	--	0.0012	--	0.017	--	<0.0010	0.0019	--	0.024	--	0.070	--	0.91	<0.0010	--	0.22	<0.00020	0.078	--	0.0011	--	<0.00020	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-0420	4/19/2020	--	--	<0.0025	<0.0025	0.014	--	0.00056 J	<0.0005	--	0.018	--	0.039	0.042	0.88	<0.0005	--	<0.2	--	0.022	--	<0.005	--	0.00010	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-1020	10/22/2020	<0.002	--	0.0012	0.0016 J	0.014	--	<0.001	0.002	--	0.0087	--	0.067	0.070	1.5	0.00053 J	--	0.20	<0.0002	0.086	--	0.0026	--	0.00008 J	--	<0.8
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-0421	4/17/2021	<0.002	--	0.0017 J	0.0010	0.017	--	<0.001	0.00088	--	0.0052	--	0.059	0.058	1.5	<0.001	--	0.27	<0.0002	0.058	--	0.0013	--	<0.0002	--	<0.8
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-1021	10/29/2021	<0.002	--	0.00057 J	0.00098	0.013	--	<0.001	0.0013	--	0.025	--	0.062	0.063	1.3	<0.001	--	0.23	<0.0002	0.074	--	0.0019	--	0.00019 J	--	0.5
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-0522	05/04/2022	0.0001 J	--	0.0018	0.0020	0.016	--	<0.001	0.00084	--	0.0061	--	0.049	0.050	1.1	0.00035 J	--	0.29	0.000084 J	0.045	--	0.0012	--	<0.0001	--	<0.7
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-1022	10/24/2022	<0.001	--	0.00090	--	0.017	--	<0.001	0.0012	--	0.019	--	0.056	--	1.5	<0.0005	--	0.26	<0.0002	0.063	--	0.00061	--	<0.0001	--	0.7
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-MW52A-1022	10/24/2022	--	--	--	0.00070	--	--	--	--	--	--	--	--	0.058	--	--	--	--	--	--	--	--	--	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-0423	04/19/2023	<0.01	--	<0.005	<0.005	0.017	--	<0.001	0.00061 J	--	0.0085 J	--	0.038	0.040	<4	<0.005	--	0.34	<0.0002	0.035	--	0.0046 J	--	<0.001	--	<0.6
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-1023	10/11/2023	<0.01	--	0.0061	0.0060	0.013	--	<0.001	0.0014	--	<0.01	--	0.052	0.051	1.7	<0.005	--	0.21	<0.0002	0.060	--	<0.005	--	<0.001	--	<0.7
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-0424	04/23/2024	<0.001	--	0.0024	0.0019	0.014 J	--	0.0066	0.00064	--	0.0026	--	0.039	0.039	1.4	<0.0005 UJ	--	0.21	<0.0002	0.037	--	0.0016	--	<0.0001	--	-0.9
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-1024	10/28/2024	<0.0025	--	<0.0025	<0.0025	0.0108	--	<0.00044	0.00065	--	<0.01	--	0.0395	0.0406	1.53 J	<0.0025	--	0.169	<0.0002	0.0549	--	<0.0025	--	<0.00013	--	<0.8
M-53A	Downgradient	Alluvial	7878	12/1/2015	<0.0025	--	0.0014	--	0.021	--	<0.0010	0.0013	--	0.0014	--	0.024	--	0.87	0.00058	--	0.21	<0.00020	0.041	--	0.00071	--	<0.00010	--	<0.7
M-53A	Downgradient	Alluvial	CH-M-53A-0316	3/9/2016	<0.015	--	<0.0049	--	0.024	--	<0.0010	0.0024	--	<0.0087	--	0.023	--	0.94	<0.0044	--	<0.20	<0.00020	0.036	--	<0.0015	--	<0.00026	--	0.5
M-53A	Downgradient	Alluvial	CH-CCR-DUP1-516	5/10/2016	<0.00020	--	0.0018	--	0.021	--	<0.0010	0.0014	--	0.0010	--	0.022	--	<2.0	<0.0010	--	<0.20	<0.00020	0.037	--	<0.0010	--	<0.00020	--	<0.5
M-53A	Downgradient	Alluvial	CH-CCR-M53A-516	5/10/2016	<0.00020	--	0.0018	--	0.021	--	<0.0010	0.0014	--	0.0015	--	0.023	--	<2.0	<0.0010	--	<0.20	<0.00020	0.037	--	<0.0010	--	<0.00020	--	<0.4
M-53A	Downgradient	Alluvial	CH-CCR-M101-816	8/26/2016	0.00010	--	0.0012	--	0.0092	--	<0.0010	0.0017	--	0.00090	--	0.016	--	2.3	0.00057	--	0.20	<0.00020	0.049	--	<0.00050	--	<0.00010	--	<0.6
M-53A	Downgradient	Alluvial	CH-CCR-M53A-816	8/26/2016	<0.00010	--	0.0012	--	0.0094	--	<0.0010	0.0018	--	0.0011	--	0.018	--	2.3	0.00057	--	0.20	<0.00020	0.053	--	<0.00050	--	<0.00010	--	0.6
M-53A	Downgradient	Alluvial	CH-CCR-M53A-916	9/22/2016	<0.00050	--	0.0013	--	0.0092	--	<0.0010	0.0016	--	0.0010	--	0.017	--	2.2	0.00062	--	0.21	<0.00020	0.048	--	0.00066	--	<0.00010	--	<0.7
M-53A	Downgradient	Alluvial	CH-CCR-M53A-217	2/21/2017	<0.0010	--	0.00098	--	0.0091	--	<0.0010	0.0015	--	0.0062	--	0.018	--	2.0	<0.00050	--	0.21	<0.00020	0.047	--	<0.00050	--	<0.00010	--	<0.6
M-53A	Downgradient	Alluvial	CH-CCR-M53A-41217	4/12/2017	<0.0010	--	0.0017	--	0.018	--	<0.0010	0.0015	--	0.0038	--	0.018	--	1.3	0.00077	--	<0.20	<0.00020	0.037	--	0.00067	--	<0.00010	--	0.6
M-53A	Downgradient	Alluvial	CH-CCR-M53A-42517	4/25/2017	<0.0010	--	0.00083	--	0.013	--	<0.0010	0.0018	--	0.0020	--	0.015	--	1.3	<0.00050	--	<0.20	<0.00020	0.027	--	<0.00050	--	<0.00010	--	<0.6
M-53A	Downgradient	Alluvial	CH-CCR-M53A-51817	5/18/2017	<0.0010	--	0.00096	--	0.0079	--	<0.0010	0.0014	--	0.0011	--	0.016	--	2.2	<0.00050	--	0.21	<0.00020	0.041	--	<0.00050	--	<0.00010	--	<0.6

Table C-5
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																													
				Constituent:	Antimony	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Molybdenum	Molybdenum	Selenium	Selenium	Thallium	Thallium	Total Radium
				Filtered:	N	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	Y	N	Y	N	Y	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAP GWPS	*0.006*	*0.006*	*0.01*	*0.01*	*2*	*2*	*0.004*	*0.005*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.015*	*0.418*	*0.002*	*0.1*	*0.1*	*0.05*	*0.05*	*0.002*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																														
M-53A	Downgradient	Alluvial	CH-CCR-M53A-52417	5/24/2017	<0.0010	--	0.0011	--	0.0083	--	<0.0010	0.0015	--	0.0014	--	0.016	--	2.4	0.00052	--	0.20	<0.00020	0.043	--	<0.00050	--	<0.00010	--	<0.4
M-53A	Downgradient	Alluvial	CH-CCR-M53A-70117	7/1/2017	<0.0010	--	0.0011	--	0.0085	--	<0.0010	0.0014	--	0.0014	--	0.016	--	2.6	<0.00050	--	0.20	<0.00020	0.042	--	<0.00050	--	<0.00010	--	<0.7
M-53A	Downgradient	Alluvial	CH-CCR-M53A-72817	7/28/2017	<0.0020	--	0.0010	--	0.0087	--	<0.0010	0.0014	--	0.0017	--	0.017	--	2.4	<0.0010	--	0.20	<0.00020	0.045	--	<0.0010	--	<0.00020	--	<0.7
M-53A	Downgradient	Alluvial	CH-CCR-M53A-90717	9/7/2017	<0.0040	--	<0.0020	--	0.0086	--	<0.0010	0.0015	--	<0.0040	--	0.017	--	2.3	<0.0020	--	0.20	<0.00020	0.046	--	<0.0020	--	<0.00040	--	<0.6
M-53A	Downgradient	Alluvial	CH-CCR-M53A-120717	12/7/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3	--	--	--	--	--	--	--	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-21518	2/15/2018	<0.0010	--	0.00076	--	0.018	--	<0.0010	0.0012	--	0.0010	--	0.011	--	1.4	<0.00050	--	<0.20	<0.00020	0.0059	--	0.00057	--	0.00012	--	0.4
M-53A	Downgradient	Alluvial	CH-CCR-FD01-52018	5/20/2018	<0.0010	--	0.0011	--	0.0090	--	--	0.0012	--	0.0015	--	0.015	--	2.6	<0.00050	--	<0.20	--	0.044	--	<0.00050	--	<0.00010	--	<0.7
M-53A	Downgradient	Alluvial	CH-CCR-M-53A-52018	5/20/2018	<0.0010	--	0.0011	--	0.0091	--	--	0.0013	--	0.0015	--	0.016	--	2.4	<0.00050	--	<0.20	--	0.045	--	<0.00050	--	0.00015	--	<0.7
M-53A	Downgradient	Alluvial	CH-CCR-M-53A-102618	10/26/2018	--	--	0.0012	--	0.0081	--	--	0.0013	--	0.0019	--	0.013	--	2.1	<0.00050	--	<0.20	--	0.042	--	<0.00050	--	<0.00010	--	--
M-53A	Downgradient	Alluvial	CH-M-53A-102618	10/26/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
M-53A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-12718	12/7/2018	<0.0050	--	<0.0020	--	0.0087	--	--	0.0012	--	<0.0050	--	0.013	--	2.3 J,UJ	0.0014	--	<0.20	<0.00020	0.039	--	<0.0060	--	<0.0010	--	0.9
M-53A	Downgradient	Alluvial	CH-CCR-M53A-12718	12/7/2018	<0.0050	--	<0.0020	--	0.0085	--	--	0.0014	--	<0.0050	--	0.014	--	2.3 J,UJ	<0.0010	--	0.20	<0.00020	0.042	--	<0.0060	--	<0.0010	--	1.1
M-53A	Downgradient	Alluvial	CH-CCR-M53A-21519	2/15/2019	<0.0010	--	0.00064	--	0.013	--	<0.0010	0.0011	--	0.0025	--	0.011	--	1.2	<0.00050	--	0.21	<0.00020	0.0067	--	0.00078	--	<0.00010	--	0.8
M-53A	Downgradient	Alluvial	CH-CCR-M53A-41719	4/17/2019	--	--	0.0011	--	0.0085	--	--	0.0012	--	0.0014	--	0.014	--	2.1	<0.00050	--	<0.20	--	0.043	--	<0.00050	--	<0.00010	--	<0.7
M-53A	Downgradient	Alluvial	CH-CCR-M53A-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3	--	--	--	--	--	--	--	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-102319	10/23/2019	<0.0020	--	0.0018	--	0.0099	--	<0.0010	0.0015	--	<0.0020	--	0.013	--	2.2 J	<0.0010	--	<0.20	<0.00020	0.044	--	0.0011	--	0.00022	--	--
M-53A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-0420	4/19/2020	--	--	<0.0025	<0.0025	0.0088	--	0.00050 J	0.0012	--	<0.005	--	0.014	0.014	2.1	<0.0005	--	0.27 J	--	0.039	--	<0.0025	--	<0.0001	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53-0420	4/19/2020	--	--	<0.0025	<0.0025	0.0087	--	0.00055 J	0.0012	--	<0.005	--	0.014	0.016	2.1	<0.0005	--	<0.2	--	0.038	--	<0.0025	--	<0.0001	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53-1020	10/22/2020	<0.002	--	0.0030	0.0028	0.0096	--	<0.001	0.0011	--	0.0021	--	0.011	0.012	2.5	0.00045 J	--	0.21	<0.0002	0.036	--	0.00048 J	--	0.00011 J	--	<0.8
M-53A	Downgradient	Alluvial	CH-CCR-M53-0421	4/17/2021	<0.002	--	0.0019 J	0.0012	0.0083	--	<0.001	0.00093	--	0.0020	--	0.012	0.012	2.1	<0.001	--	0.21	<0.0002	0.029	--	0.0010	--	0.00096 J	--	<0.8
M-53A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-0421	4/17/2021	<0.002	--	0.0024	0.0013	0.0083	--	<0.001	0.00079	--	0.0017 J	--	0.012	0.012	2.1	<0.001	--	0.21	<0.0002	0.027	--	0.00096 J	--	<0.0002	--	<0.7
M-53A	Downgradient	Alluvial	CH-CCR-M53-1021	10/28/2021	<0.002	--	0.0013	0.0016	0.010	--	<0.001	0.0012	--	0.0018 J	--	0.012	0.010	2.1	0.00048 J	--	0.23	<0.0002	0.039	--	0.0011	--	0.00058	--	<0.6
M-53A	Downgradient	Alluvial	CH-CCR-M53A-0522	05/04/2022	0.000052 J	--	0.0012	0.0021	0.0064	--	<0.001	0.001	--	0.001	--	0.010	0.012	2.1	<0.0005	--	0.21	<0.0002	0.031	--	0.00087	--	<0.0001	--	0.8
M-53A	Downgradient	Alluvial	CH-CCR-M53A-1022	10/23/2022	<0.001	--	0.0012	0.0013	0.0089	--	<0.001	0.00072	--	0.0011	--	0.0093	0.0095	2.1	<0.0005	--	0.23	<0.0002	0.031	--	0.00057	--	<0.0001	--	0.8
M-53A	Downgradient	Alluvial	CH-CCR-M53A-0423	04/19/2023	0.0017 J	--	<0.005	<0.005	0.0083	--	<0.001	0.0013	--	<0.01	--	0.0084	0.0094	2.4	<0.005	--	0.23	<0.0002	0.033	--	<0.005 UJ	--	0.00041 J	--	<0.6
M-53A	Downgradient	Alluvial	CH-CCR-M53A-1023	10/19/2023	<0.005	--	0.0031	0.0027	0.012 J	--	<0.001	0.00069	--	<0.005	--	0.0085	0.0074	2.4	<0.0025	--	0.28	<0.0002	0.035	--	<0.0025	--	<0.0005	--	<0.8
M-53A	Downgradient	Alluvial	CH-CCR-M53A-0424	04/23/2024	<0.001	--	0.0021	0.0022	0.007 J	--	0.0058	0.00058	--	0.001	--	0.0076	0.0078	2.4	<0.0005 UJ	--	0.21	<0.0002	0.033	--	0.0014	--	<0.0001	--	<0.9
M-53A	Downgradient	Alluvial	CH-CCR-M53A-1024	10/24/2024	<0.0005	--	0.0010	<0.0025	0.0087	--	<0.00044	0.00047	--	<0.002	--	0.006	0.0062	2.42	<0.0005	--	0.18	<0.0002 UJ	0.022	--	<0.0005	--	0.000065 J	--	0.7
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-M71-1021	10/30/2021	<0.002	--	0.00092 J	0.0013	0.014	--	<0.001	0.00025	--	0.0011 J	--	0.020	0.017	3.0	<0.001	--	0.20	<0.0002	0.04	--	0.0032	--	<0.0002	--	0.8
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-M71A-0522	5/10/2022	<0.001	--	0.0013	0.00069	0.011	--	<0.001	0.00023	--	0.0014	--	0.016	0.016	3.3	<0.0005	--	0.20 / 0.13	<0.0002	0.032	--	0.0018	--	0.000083 J	--	1.9
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-1022	10/24/2022	<0.001	--	0.00091	0.00087	0.014	--	0.0022	0.00026	--	0.0019	--	0.015	0.015	2.7	<0.0005	--	0.21	<0.0002	0.039	--	<0.0005	--	<0.0001	--	0.6
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-0423	04/19/2023	0.00074 J	--	<0.005	<0.005	0.011	--	<0.001	0.00032 J	--	<0.01	--	0.015	0.016	3.1	<0.005	--	0.21	<0.0002	0.032	--	<0.005	--	0.00014 J	--	<0.6
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-1023	10/18/2023	<0.005	--	0.0025	0.0026	0.013 J	--	<0.001	<0.0005	--	<0.005	--	0.014	0.014	3.4	<0.0025	--	0.25	<0.0002	0.034	--	<0.0025	--	<0.0005	--	<0.8
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-0424	05/01/2024	<0.02	--	0.010 J	0.011	0.013	--	<0.001	<0.002	--	<0.02	--	0.014	0.014	2.7	<0.01	--	0.19	<0.0002	0.033 J	--	<0.01	--	<0.002	--	<0.8
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-1024	10/29/2024	<0.0025	--	<0.0025	<0.0025	0.0159	--	<0.00044	<0.0004	--	<0.01	--	0.0118	0.0111	3.36	<0.0025	--	0.161	<0.0002	0.0321	--	<0.0025	--	<0.00013	--	<0.7
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-M72-1021	10/30/2021	0.00068 J	--	0.015	0.016	0.21	--	<0.002	0.00039	--	0.0023	--	0.0082	0.0083	0.098 J	<0.001	--	4.2	<0.0002	0.025	--	0.0069	--	0.0013	--	11.2
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-M72M-0522	5/10/2022	0.00067 J	--	0.015	0.015	0.20	--	<0.002	0.00041 J	--	<0.01	--	0.0084	0.0081	1.3	<0.005	--	4.6 / 3.1	<0.0002	0.026	--	0.015	--	0.0016	--	6.8
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-0522re	5/27/2022	<0.004	--	0.0092	0.010	0.17	--	<0.01	<0.0004	--	<0.004	--	0.0053	0.0061	1.6	<0.002	--	4.6	<0.0002	0.021	--	0.0052	--	0.0014	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-SS05-0522	5/27/2022	<0.1	--	<0.05	<0.05	0.197	--	<0.0125	<0.0125	--	<0.1	--	0.0387	0.0301	0.29 J	<0.025	--	4.18	<0.001	0.0295	--	<0.0125	--	<0.025	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-1022	10/24/2022	<0.004	--	0.0053	0.0062	0.16	--	<0.004	<0.0004	--	<0.004	--	0.0034	0.0025	<0.8	<0.002	--	3.7	0.00031	0.022	--	0.0030	--	0.0015	--	11.5
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-0423	04/19/2023	0.0014 J	--	0.0095	0.0069	0.15	--	<0.005	0.00063 J	--	0.043	--	0.0032 J	0.0041 J	<40	<0.005	--	5.3	<0.0002	0.023	--	0.013 J	--	0.0018	--	14.3
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-1023	10/18/2023	<0.005	--	0.0076	0.0079	0.13 J	--	<0.01	<0.0005	--	0.056	--	0.0027	0.0025	<0.8	<0.0025	--	3.8	<0.0002	0.019	--	0.0027	--	0.0015	--	16.6
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-0424	05/01/2024	<0.02	--	0.018	0.018	0.14	--	<0.001	<0.002	--	<0.02	--	<0.01	<0.01	<0.4	<0.01	--	4.6	<0.0002	0.024	--	0.015	--	0.0020	--	13.4
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-1024	10/29/2024	<0.0025	--	0.0035	0.0035	0.121	--	<0.0022	<0.004	--	0.0102	--	0.0026	<0.0025	<0.38	<0.0025	--	3.72	<0.0002	0.0201	--	0.0037	--	0.0016	--	12.8
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-M73-1021	10/30/2021	<0.002	--	0.0025	0.0026	0.022	--	<0.001	0.00015 J	--	0.0015 J	--	0.013	0.013	3.7	0.0015	--	0.27	<0.0002	0.031	--	0.0034	--	<0.0002	--	0.5
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-M73A-0522	5/11/2022	<0.001	--	0.0017	0.00078	0.011	--	<0.001	0.000039 J	--	0.070	--	0.012	0.011	4.1	0.00078	--	0.25 / 0.16	<0.0002	0.033	--	0.0019	--	0.000028 J	--	<0.7
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-1022	10/24/2022	<0.001	--	0.0012	0.00062	0.019	--	<0.001	<0.0001	--	0.082	--	0.013	0.012	3.4	0.00093	--	0.27	<0.0002	0.031	--	<0.0005	--	<0.0001	--	0.7
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-0423	04/20/2023	0.00062 J	--	<0.01	<0.005	0.0097	--	<0.001	<0.001	--	0.33	--	0.016	0.016	3.9	<0.005	--	0.22	<0.0002	0.058	--	0.0067 J	--	<0.001	--	1.4
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-1023	10/18/2023	<0.005	--	0.0026	<0.0025	0.012 J	--	<0.001	<0.0005	--	0.097	--	0.0087	0.008	4.2	<0.0025	--	0.29	<0.0002	0.044	--	<0.0025	--	<0.0005	--	<0.8
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-0424	04/24/2024	<0.001	--	0.0037	0.0016	0.011 J	--	0.0061	<0.0001	--	0.27	--	0.015	0.013	3.4	0.00087 J	--	0.21	<0.0002	0.092	--	0.0012	--	<0.0001	--	<0.9
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-1024	10/29/2024	<0.0025	--	<0.0025	<0.0025	0.0086	--	<0.00044	<0.0004	--	0.706	--	0.013	0.0146	4.19	<0.0025	--	0.148	<0.0002	0.199	--	<0.0025	--	<0.00013	--	0.6
MW-74M	Downgradient	Alluvial/Moqui	CH-DEV-MW74M-0921	9/29/2021	--	--	0.00053	--	--	--	--	--	--	--	--	0.021	--	0.86	--	--	0.26	--	0.040	--	--	--	--	--	--
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-M74-1021	10/30/2021	<0.002	--	0.0017	0.0012	0.016	--	<0.001	0.00022	--	0.0019 J	--	0.020	0.017	0.85	0.0015	--	0.24	<0.0002	0.051	--	0.0025	--	0.00014 J	--	<0.6
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-M74M-0522	5/11/2022	<0.001	--	0.0014	0.00073	0.0091	--	<0.001	0.00027	--	0.0013	--	0.017	0.016	1.2	0.0011	--	0.22 / 0.16	<0.0002	0.044	--	0.0017	--	0.000085 J	--	<0.7
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-1022	10/25/2022	<0.001	--	0.00074	0.00076	0.0097	--	<0.001	0.00019	--	<0.001	--	0.016	0.016	1.0	0.0010	--	0.25	<0.0002	0.045	--	0.00050	--	<0.0001	--	0.5
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-0423	04/20/2023	0.0005 J	--	<0.005	<0.005	0.0086	--	<0.001	0.00026 J	--	<0.01	--	0.014	0.016	<4	<0.005	--	0.24	<0.0002	0.040	--	<0.005	--	<0.001	--	<0.6
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-1023	10/18/2023	<0.005	--	<0.0025	<0.0025	0.0088 J	--	<0.001	<0.0005	--	<0.005	--	0.015	0.015	1.4	<0.0025	--	0.29	<0.0002	0.039	--	<0.0025	--	<0.0005	--	<0.8
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-0424	04/24/2024	<0.001	--	0.0023	0.0018	0.014 J	--	0.0054	0.00022	--	0.0037	--	0.015	0.015	1.2	0.0010 J	--	0.22	<0.0002	0.045	--	0.0015	--	<0.0001	--	<0.9
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-1024	10/30/2024	<0.0025	--	<0.0025	<0.0025	0.0091	--	<0.00044	<0.004	--	<0.01	--	0.0136	0.0135	1.45 J	<0.0025	--	0.188	<0.0002	0.0395	--	<0.0025	--	<0.00013	--	0.6
MW-77A	Downgradient	Alluvial/Moqui	CH-DEV-MW77A-0621	6/3/2021	0.00018 J	--	0.0021	--	0.0092	--	<0.001	0.000083 J	--	0.00046 J	--	0.0039	--	0.56	0.0017	--	0.50	--	0.0054	--	0.0034	--	0.00022	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-BAPD-MW77A-0621	6/15/2021	--	--	0.0020	--	--	--	--	--	--	--	--	0.0041	--	0.36 J	--	--	0.52	--	0.019	--	--	--	--	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0821	8/2/2021	<0.001	--	0.0022	0.0024	0.0092	--	<0.001	0.000095 J	--	<0.001	--	0.0039	0.0042	0.33 J	<0.0005	--	0.53	<0.0002	0.0050	--	0.0017	--	<0.0001	--	<0.6
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-M77-1021	10/28/2021	<0.002	--	0.0018	0.0028	0.0091	--	<0.001	<0.0002	--	0.0013 J	--	0.0046	0.0042	0.32 J	<0.001	--	0.50	<0.0002	0.0053	--	0.0039	--	<0.0002	--	<0.6
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0422	4/28/2022	0.000046 J	--	0.0020	0.0015	0.0079	--	<0.001	0.00007 J	--	0.0044	--	0.0042	0.0046	0.41 J	<0.0005	--	0.52	<0.0002	0.0054	--	0.0021	--	0.000047 J	--	<0.7
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-1022	10/22/2022	<0.001	--	0.0012	0.0012	0.0084	--	<0.001	<0.0001	--	0.017	--	0.0047	0.0047	<0.8	<0.0005	--	0.53	<0.0002	0.0069	--	0.0019	--	<0.0001	--	0.5
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0423	04/25/2023	<0.01	--	0.00089 J	0.0012 J	0.0084	--	<0.001	<0.002	--	0.015	--	0.0048	0.0047	<4	<0.002	--	0.52	<0.0002	0.0069	--	<0.01	--	<0.002	--	1.3
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-1023	10/17/2023	<0.005	--	0.0029	0.0030	0.0079 J	--	<0.001	<0.0005	--	0.0092	--	0.0046	0.0051	<0.8	<0.0025	--	0.58	<0.0002	0.0061	--	<0.0025	--	<0.0005	--	<0.8
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0424	04/18/2024	<0.001	--	0.0022	0.0021	0.008	--	<0.001	<0.0001	--	0.0065	--	0.0054	0.0055	<0.4	<0.0025	--	0.47	<0.0002	0.0057	--	0.0037	--	<0.0005	--	<0.8
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-1024	10/30/2024	<0.0025	--	<0.0025	<0.0025	0.0082	--	<0.00044	<0.0004	--	<0.01	--	0.0051	0.0053	0.895 J	<0.0025	--	0.412	<0.0002	0.0047	--	<0.0025	--	<0.00013	--	<0.7
MW-78A	Downgradient	Alluvial	CH-DEV-MW78A-0621	6/8/2021	0.00027 J	--	0.0023	--	0.11	--	<0.001	0.000056 J	--	0.0029	--	0.0025	--	0.51	0.0042	--	0.25	--	0.0083	--	0.0012	--	0.000077 J	--	--
MW-78A	Downgradient	Alluvial	CH-BAPD-MW78A-0621	6/14/2021	--	--	0.0015	--	--	--	--	--	--	--	--	0.0021	--	0.38 J	--	--	0.24	--	0.016	--	--	--	--	--	--
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-0821	8/2/2021	<0.001	--	0.0021	0.0024	0.014	--	<0.001	0.00022	--	<0.001	--	0.0017	0.0016	0.39 J	<0.0005	--	0.25	<0.0002	0.0079	--	0.00068	--	<0.0001	--	<0.6
MW-78A	Downgradient	Alluvial	CH-CCR-M78-1021	10/28/2021	<0.002	--	0.0023	0.0021	0.013	--	<0.001	<0.0002	--	<0.002	--	0.0020	0.0018	0.36 J	<0.001	--	0.24	<0.0002	0.0079	--	0.0018	--	0.00008 J	--	<0.6
MW-78A	Downgradient	Alluvial	CH-CCR-M78A-0522	5/11/2022	<0.001	--	0.0019	0.0013	0.012	--	<0.001	0.000047 J	--	<0.001	--	0.0018	0.0017	0.54 J	<0.0005	--	0.23 / 0.15	<0.0002	0.007	--	0.00077	--	0.000085 J	--	<0.6
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-1022	10/25/2022	<0.001	--	0.0010	0.0010	0.011	--	<0.001	<0.0001	--	<0.001	--	0.0016	0.0016	<0.8	<0.0005	--	0.25	<0.0002	0.0069	--	<0.0005	--	0.00017	--	<0.6
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-0423	04/24/2023	<0.01	--	<0.002	<0.002	0.011	--	<0.001	<0.002	--	<0.01	--	0.0016 J	0.0015 J	<4	<0.002	--	0.27	<0.0002	0.0066	--	<0.01	--	<0.002	--	1.7
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-1023	10/23/2023	<0.001 UJ	--	0.00086 J	0.00080	0.0022 J	--	<0.001	<0.0001 UJ	--	<0.001 UJ	--	<0.0005 UJ	<0.0005	<0.4	<0.0005 UJ	--	0.24	<0.0002	0.0014 J	--	0.00077 J	--	<0.0001 UJ	--	<0.7
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-0424	04/19/2024	<0.001	--	0.0020	0.00190	0.011	--	<0.001	<0.0001	--	<0.001	--	0.0019	0.0019	<0.4	<0.0005	--	0.18	<0.0002	0.0074	--	0.0011	--	<0.0001	--	0.8
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-1024	10/23/2024	<0.0005	--	0.0006	<0.0025	0.010	--	<0.00064 U	<0.00008	--	<0.002	--	<0.0025	<0.0025	0.822 J	<0.0005	--	0.203	<0.0002 UJ	0.0060	--	<0.0005	--	0.000077 J	--	1.7
MW-79A	Downgradient	Alluvial	CH-BAPD-MW79A-0621	6/14/2021	--	--	0.0019	--	--	--	--	--	--	--	--	0.0061	--	0.54 J	--	--	0.14	--	0.10	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CRT-M79A-0621_062421	6/24/2021	--	--	--	--	--	--	--	--	--	--	--	0.0087	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CRT2-M79A-0621_062421	6/24/2021	--	--	--	--	--	--	--	--	--	--	--	0.0091	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CRT2-M79A-0621_062521	6/25/2021	--	--	--	--	--	--	--	--	--	--	--	0.0089	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-0821	8/2/2021	<0.001	--	<0.0016	0.0018	0.013	--	0.00052 J	0.000041 J	--	<0.001	--	0.0077	0.0078	0.52 J	<0.0005	--	0.16	<0.0002	0.013	--	0.00071	--	<0.0001	--	<0.6

Table C-5
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																													
			Constituent:		Antimony	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Molybdenum	Molybdenum	Selenium	Selenium	Thallium	Thallium	Total Radium
			Filtered:		N	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	Y	N	Y	N	Y	N
			Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
			BAP GWPS		0.006	0.006	0.01	0.01	2	2	0.004	0.005	0.005	0.1	0.1	0.006	0.006	4	0.015	0.015	0.418	0.002	0.1	0.1	0.05	0.05	0.002	0.002	5
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																														
MW-79A	Downgradient	Alluvial	CH-CCR-M79-1021	10/25/2021	<0.002	--	0.0016	0.0014	0.012	--	<0.001	<0.0002	--	<0.002	--	0.011	0.0081	0.51 J	<0.001	--	0.15	<0.0002	0.016	--	0.0017	--	<0.0002	--	<0.6
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-1021	10/25/2021	<0.002	--	0.0016	0.0012	0.011	--	<0.001	0.000084 J	--	<0.002	--	0.0091	0.0074	0.51 J	<0.001	--	0.16	<0.0002	0.016	--	0.0020	--	<0.0002	--	0.4
MW-79A	Downgradient	Alluvial	CH-CCR-M79A-0522	5/12/2022	<0.001	--	0.0010	0.00032 J	0.011	--	<0.001	0.000058 J	--	<0.001	--	0.0086	0.007	0.69 J	<0.0005	--	0.16 / 0.092	<0.0002	0.013	--	0.0012	--	0.000034 J	--	0.7
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-0522	5/12/2022	<0.001	--	0.00098	0.0004 J	0.012	--	<0.001	0.000058 J	--	0.00063 J	--	0.0079	0.0073	0.67 J	<0.0005	--	0.15 / 0.091	<0.0002	0.014	--	0.00093	--	0.000020 J	--	0.7
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-1022	10/20/2022	<0.001	--	0.00075	0.00073	0.010	--	<0.001	<0.0001	--	<0.001	--	0.0093	0.0098	<0.8	<0.0005	--	0.16	<0.0002	0.013	--	0.0010	--	<0.0001	--	<0.7
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-1022	10/20/2022	<0.001	--	0.00061	0.00084	0.011	--	<0.001	<0.0001	--	<0.001	--	0.0098	0.0093	<0.8	<0.0005	--	0.15	<0.0002	0.014	--	0.0011	--	<0.0001	--	0.5
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-0423	04/14/2023	<0.01	--	<0.005	<0.005	0.023 J	--	<0.001	0.00031 J	--	<0.01	--	0.0097	0.010	<2	<0.005	--	0.17	<0.0002	0.016	--	<0.005	--	0.00026 J	--	0.7
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-0423	04/14/2023	<0.01	--	<0.005	<0.005	0.012 J	--	<0.001	<0.001	--	<0.01	--	0.0093	0.011	<2	<0.005	--	0.17	<0.0002	0.015	--	<0.005	--	0.00026 J	--	<0.6
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-1023	10/13/2023	<0.01	--	0.0063	0.0062	0.011	--	<0.001	<0.001	--	<0.01	--	0.0094	0.0089	0.89	<0.005	--	0.15	<0.0002	0.014	--	<0.005	--	<0.001	--	0.7
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-1023	10/13/2023	<0.01	--	0.0060	0.0060	0.015	--	<0.001	<0.001	--	<0.01	--	0.0088	0.009	0.52	<0.005	--	0.16	<0.0002	0.015	--	<0.005	--	<0.001	--	1.5
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-0424	04/30/2024	<0.02	--	<0.01	<0.01	0.012	--	<0.001	<0.002	--	<0.02	--	0.011	0.011	0.63	<0.01	--	0.19	<0.0002	0.016	--	<0.01	--	<0.002	--	<0.8
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-0424	04/30/2024	<0.02	--	0.0110	0.0100	0.012	--	<0.001	<0.002	--	<0.02	--	0.011	0.012	0.53	<0.01	--	0.18	<0.0002	0.015	--	<0.01	--	<0.002	--	<0.8
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-1024	11/11/2024	<0.0025	--	<0.0025	<0.0025	0.0111	--	<0.00044	<0.0004	--	<0.01	--	0.0106	0.0104	0.697 J	<0.0025	--	0.138	<0.0002	0.0139	--	<0.0025	--	<0.00013	--	2.7
W-305	Downgradient	Alluvial	--	12/2/2015	<0.0025	--	0.00088	--	0.013	--	<0.0010	0.00022	--	0.00066	--	0.0100	--	1.4	0.0017	--	0.23	<0.00020	0.016	--	0.00024	--	<0.00020	--	--
W-305	Downgradient	Alluvial	--	3/9/2016	<0.050	--	<0.01	--	0.0083	--	<0.0010	<0.0020	--	<0.010	--	0.0160	--	<0.8	<0.01	--	0.21	<0.00020	0.017	--	<0.01	--	<0.02	--	--
W-305	Downgradient	Alluvial	--	5/11/2016	<0.00010	--	0.00058	--	0.0059	--	<0.0010	0.00012	--	<0.00050	--	0.0140	--	<2.0	<0.00050	--	0.21	<0.00020	0.014	--	<0.00050	--	<0.00010	--	--
W-305	Downgradient	Alluvial	--	8/27/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	--	9/22/2016	<0.0005	--	0.0006	--	0.011	--	<0.0010	<0.0010	--	0.0098	--	0.0016	--	--	0.0025	--	0.22	<0.00020	0.024	--	0.00067	--	<0.00010	--	--
W-305	Downgradient	Alluvial	--	2/21/2017	<0.00010	--	0.00066	--	0.012	--	<0.0010	0.00011	--	0.0022	--	0.0180	--	<0.80	0.0021	--	0.22	<0.00020	0.020	--	<0.00050	--	<0.00010	--	--
W-305	Downgradient	Alluvial	--	4/11/2017	<0.00010	--	0.00098	--	0.012	--	<0.0010	<0.0010	--	0.00092	--	0.0190	--	<0.80	0.0024	--	0.20	<0.00020	0.021	--	<0.00050	--	<0.00010	--	--
W-305	Downgradient	Alluvial	--	4/24/2017	<0.00010	--	0.00078	--	0.012	--	<0.0010	<0.0010	--	0.0031	--	0.0170	--	<0.80	0.0020	--	0.21	<0.00020	0.020	--	<0.00050	--	<0.00010	--	--
W-305	Downgradient	Alluvial	--	5/22/2017	<0.00010	--	0.00070	--	0.010	--	<0.0010	<0.0010	--	0.00070	--	0.0150	--	<0.80	0.0017	--	0.20	<0.00020	0.017	--	<0.00050	--	<0.00010	--	--
W-305	Downgradient	Alluvial	--	5/24/2017	<0.00010	--	<0.0020	--	0.012	--	<0.0010	<0.00040	--	<0.0020	--	0.0170	--	<0.80	<0.0020	--	0.23	<0.00020	0.020	--	<0.0020	--	<0.0004	--	--
W-305	Downgradient	Alluvial	--	6/29/2017	<0.00010	--	0.00076	--	0.012	--	<0.0010	<0.0010	--	0.0040	--	0.0180	--	<0.40	0.0025	--	0.21	<0.00020	0.020	--	<0.00050	--	<0.00010	--	--
W-305	Downgradient	Alluvial	--	7/28/2017	<0.0010	--	0.00078	--	0.010	--	<0.0010	<0.0010	--	0.00062	--	0.0170	--	<0.80	0.0021	--	0.21	<0.00020	0.018	--	<0.00050	--	<0.00010	--	--
W-305	Downgradient	Alluvial	--	9/6/2017	<0.0010	--	0.00073	--	0.011	--	<0.0010	0.0001	--	0.0038	--	0.0180	--	<0.80	0.0020	--	0.20	<0.00020	0.021	--	<0.00050	--	<0.00010	--	--
W-305	Downgradient	Alluvial	--	12/7/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-21518	2/15/2018	<0.0010	--	0.00092	--	0.012	--	<0.0010	<0.00010	--	<0.0010	--	0.017	--	<0.80	0.0020	--	0.21	<0.00020	0.021	--	<0.00050	--	<0.00010	--	0.643
W-305	Downgradient	Alluvial	CH-CCR-W-305-51918	5/19/2018	<0.0010	--	0.00099	--	0.012	--	--	<0.00010	--	0.0012	--	0.017	--	<0.80	0.0020	--	0.21	--	0.020	--	<0.00050	--	<0.00010	--	<0.7
W-305	Downgradient	Alluvial	CH-CCR-W-305-51918	5/19/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W-305-102618	10/26/2018	--	--	0.00092	--	0.011	--	--	<0.00010	--	0.0012	--	0.018	--	<0.80	0.0019	--	0.20	--	0.021	--	0.00053	--	<0.00010	--	--
W-305	Downgradient	Alluvial	CH-W-305-102618	10/26/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
W-305	Downgradient	Alluvial	CH-CCR-W305-12718	12/7/2018	<0.0050	--	<0.0020	--	0.012	--	--	<0.0010	--	<0.0050	--	0.018	--	<0.80 J,UJ	0.0030	--	0.21	<0.00020	0.021	--	<0.0060	--	<0.0010	--	<0.7
W-305	Downgradient	Alluvial	CH-CCR-W305-21519	2/15/2019	<0.0010	--	0.00087 J	--	0.011 J	--	<0.0010	<0.00010	--	0.0017	--	0.018	--	<0.40	0.0018 J	--	0.22	<0.00020	0.020 J	--	<0.00050	--	<0.00010	--	0.8
W-305	Downgradient	Alluvial	CH-CCR-W305-41719	4/17/2019	--	--	0.00083	--	0.012	--	--	<0.00010	--	0.0015	--	0.018	--	<0.80	0.0020	--	0.20	--	0.022	--	0.00067	--	<0.00010	--	<0.7
W-305	Downgradient	Alluvial	CH-CCR-W305-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	*DUP* CH-CCR-FD01-102319	10/23/2019	<0.0020	--	0.0015	--	0.013	--	<0.0010	0.00021	--	<0.0020	--	0.018	--	1.3	0.0025	--	0.20	<0.00020	0.022	--	<0.0010	--	<0.00020	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-102319	10/23/2019	<0.0020	--	0.0019	--	0.014	--	<0.0010	0.00022	--	<0.0020	--	0.018	--	<0.80	0.0026	--	0.20	<0.00020	0.023	--	<0.0010	--	0.00024	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-0420	4/18/2020	--	--	<0.0025	<0.0025	0.014	--	<0.0005	<0.0005	--	0.0069	--	0.020	0.020	<0.8	0.0024	--	0.30 J	--	0.021	--	<0.0025	--	<0.0001	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-1020	10/22/2020	<0.002	--	0.00068 J	0.0012 J	0.013	--	<0.001	0.000056 J	--	0.0025	--	0.018	0.018	0.39 J	0.0021	--	0.22	<0.0002	0.022	--	0.0036	--	<0.0002	--	<0.8
W-305	Downgradient	Alluvial	CH-CCR-W305-0421	4/17/2021	0.00010 J	--	0.0018 J	0.0011	0.013	--	<0.001	<0.0002	--	0.0012 J	--	0.018	0.017	0.45 J	0.0017	--	0.23	<0.0002	0.023	--	0.0012	--	<0.0002	--	<0.7
W-305	Downgradient	Alluvial	CH-CCR-W305-1021	10/29/2021	<0.002	--	0.0014	0.0014	0.012	--	<0.001	0.000066 J	--	0.0020	--	0.020	0.016	0.32 J	0.0023	--	0.22	<0.0002	0.026	--	0.002	--	<0.0002	--	0.5
W-305	Downgradient	Alluvial	CH-CCR-W305-0522	5/12/2022	<0.001	--	0.0014	0.0014	0.011	--	<0.001	0.000098 J	--	0.0033	--	0.016	0.017	0.53 J	0.0019	--	0.22 / 0.18	<0.0002	0.021	--	0.0014	--	<0.0001	--	<0.6
W-305	Downgradient	Alluvial	CH-CCR-W305-1022	10/20/2022	<0.001	--	0.0010	0.0012	0.011	--	<0.001	<0.0001	--	0.0014	--	0.017	0.017	<0.8	0.0020	--	0.23	<0.0002	0.021	--	<0.0005	--	<0.0001	--	0.9
W-305	Downgradient	Alluvial	CH-CCR-W305-0423	04/14/2023	<0.01	--	<0.005	<0.005	0.012	--	<0.001	0.00028 J	--	<0.01	--	0.016	0.017	<2	<0.005	--	0.24	<0.0002	0.023	--	0.0044 J	--	0.00015 J	--	<0.6
W-305	Downgradient	Alluvial	CH-CCR-W305-1023	11/21/2023	<0.001	--	0.0021	0.0023	t it.	--	<0.001	0.00012	--	<0.001	--	0.019	0.022	<0.8	0.0020	--	0.25	<0.0002	0.024	--	<0.01	--	0.00024	--	<0.8
W-305	Downgradient	Alluvial	CH-CCR-W305-0424	05/02/2024	<0.02	--	0.013	0.012	0.012	--	<0.001	<0.002	--	<0.02	--	0.018	0.018	<0.4	<0.01	--	0.26	<0.0002	0.025	--	<0.01	--	<0.002	--	<0.8
W-305	Downgradient	Alluvial	CH-CCR-W305-1024	11/11/2024	<0.0025	--	<0.0025	<0.0025	0.0106	--	<0.00044	<0.0004	--	<0.01	--	0.0144	0.0148	0.51 J	<0.0025	--	0.19	<0.0002	0.0199	--	<0.0025	--	<0.00013	--	0.9
W-306	Downgradient	Alluvial	7797	12/2/2015	<0.0025	--	0.0019	--	0.014	--	<0.0010	0.0015	--	0.00073	--	0.030	--	0.75	0.00066	--	0.43	<0.00020	0.032	--	0.0016	--	<0.00010	--	<0.7
W-306	Downgradient	Alluvial	CH-W-306-0316	3/9/2016	<0.015	--	<0.0049	--	0.013	--	<0.0010	<0.00046	--	<0.0087	--	0.0099 J	--	1.4	<0.0044	--	0.51	<0.00020	0.020	--	0.0020 J	--	<0.00026	--	<0.6
W-306	Downgradient	Alluvial	CH-CCR-W306-516	5/11/2016	0.00024	--	0.0039	--	0.014	--	<0.0010	<0.00020	--	<0.0010	--	0.0082	--	<2.0	<0.0010	--	0.56	<0.00020	0.020	--	0.0037	--	<0.00020	--	<0.4
W-306	Downgradient	Alluvial	CH-CCR-W306-816	8/26/2016	0.00024	--	0.0051	--	0.015	--	<0.0010	<0.00010	--	0.00093	--	0.0043	--	1.4	<0.00050	--	0.67	<0.00020	0.057	--	0.0047	--	<0.00010	--	0.5
W-306	Downgradient	Alluvial	CH-CCR-W306-916	9/22/2016	<0.0010	--	0.0042	--	0.013	--	<0.0010	<0.00020	--	<0.0010	--	0.0038	--	<0.40	<0.00020	--	0.72	<0.00020	0.032	--	0.0039	--	<0.00020	--	<0.7
W-306	Downgradient	Alluvial	CH-CCR-W306-217	2/21/2017	<0.0010	--	0.0048	--	0.012	--	<0.0010	<0.00010	--	0.00087	--	0.0021	--	1.5	<0.00050	--	0.78	<0.00020	0.033	--	0.0042	--	<0.00010	--	<0.6
W-306	Downgradient	Alluvial	CH-CCR-W306-41217	4/12/2017	<0.0010	--	0.0050	--	0.012	--	<0.0010	<0.00010	--	<0.00050	--	0.0021	--	1.4	<0.00050	--	0.70	<0.00020	0.035	--	0.0039	--	<0.00010	--	<0.6
W-306	Downgradient	Alluvial	CH-CCR-W306-42517	4/25/2017	<0.0010	--	0.0048	--	0.012	--	<0.0010	<0.00010	--	0.00050	--	0.0020	--	1.5	<0.0010	--	0.71	<0.00020	0.032	--	0.0039	--	<0.00020	--	<0.6
W-306	Downgradient	Alluvial	CH-CCR-W306-52217	5/22/2017	<0.0010	--	0.0042	--	0.010	--	<0.0010	<0.00010	--	<0.00050	--	0.0018	--	1.1	<0.00050	--	0.65	<0.00020	0.026	--	0.0030	--	<0.00010	--	<0.6
W-306	Downgradient	Alluvial	CH-CCR-W306-52417	5/24/2017	<0.0040	--	0.0046	--	0.013	--	<0.0010	<0.00040	--	<0.0020	--	0.0022	--	1.0	<0.0020	--	0.74	<0.00020	0.029	--	0.0030	--	<0.00040	--	<0.6
W-306	Downgradient	Alluvial	CH-CCR-W306-70117	7/1/2017	<0.0010	--	0.0046	--	0.011	--	<0.0010	0.00010	--	<0.00050	--	0.0023	--	1.3	<0.00050	--	0.64	<0.00020	0.028	--	0.0031	--	<0.00010	--	<0.7
W-306	Downgradient	Alluvial	CH-CCR-W306-72817	7/28/2017	<0.0010	--	0.0044	--	0.0094	--	<0.0010	<0.00040	--	<0.00050	--	0.0024	--	1.2	<0.0020	--	0.64	<0.00020	0.027	--	0.0027	--	<0.00040	--	1.1
W-306	Downgradient	Alluvial	CH-CCR-W306-90617	9/6/2017	<0.0010	--	0.0047	--	0.010	--	<0.0010	<0.00010	--	<0.0010	--	0.0023	--	1.4	<0.00050	--	0.62	<0.00020	0.028	--	0.0029	--	<0.00010	--	<0.7
W-306	Downgradient	Alluvial	CH-CCR-W306-120717	12/7/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4	--	--	--	--	--	--	--	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-21518	2/15/2018	<0.0010	--	0.0048	--	0.010	--	<0.0010	<0.00010	--	<0.0010	--	0.0014	--	1.3	<0.00050	--	0.69	<0.00020	0.028	--	0.0021	--	<0.00010	--	0.4
W-306	Downgradient	Alluvial	CH-CCR-FD02-21518	2/15/2018	<0.0020	--	0.0049	--	0.011	--	<0.0010	<0.00020	--	<0.0010	--	0.0015	--	1.3	<0.0010	--	0.70	<0.00020	0.030	--	0.0022	--	<0.00020	--	0.3
W-306	Downgradient	Alluvial	CH-CCR-W-306-51918	5/19/2018	<0.0020	--	0.0052	--	0.010	--	--	<0.00020	--	<0.0020	--	0.0014	--	1.6	<0.0010	--	0.68	--	0.031	--	0.0016	--	<0.00020	--	0.8
W-306	Downgradient	Alluvial	CH-CCR-W-306-102618	10/26/2018	--	--	0.0052	--	0.010	--	--	0.00011	--	<0.0010	--	0.0012	--	1.4	<0.00050	--	0.68	--	0.032	--	0.0021	--	<0.00010	--	--
W-306	Downgradient	Alluvial	CH-W-306-102618	10/26/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
W-306	Downgradient	Alluvial	CH-CCR-W306-12718	12/7/2018	<0.0050	--	0.0041	--	0.010	--	--	<0.0010	--	<0.0050	--	<0.0020	--	1.4 J,UJ	<0.0010	--	0.73	<0.00020	0.028	--	<0.0060	--	<0.0010	--	<0.7
W-306	Downgradient	Alluvial	CH-CCR-W306-21519	2/15/2019	<0.0010	--	0.0053	--	0.011	--	<0.0010	<0.00010	--	<0.0010	--	0.00097	--	1.2	<0.00050	--	0.80	<0.00020	0.031	--	0.0021	--	<0.00010	--	<0.6
W-306	Downgradient	Alluvial	CH-CCR-W306-41619	4/16/2019	--	--	0.0052	--	0.011	--	--	0.00013	--	<0.0010	--	0.00094	--	1.0	<0.00050	--	0.68	--	0.033	--	0.0016	--	<0.00010	--	<0.7
W-306	Downgradient	Alluvial	CH-CCR-W306-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	0.99	--	--	--	--	--	--	--	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-102319	10/23/2019	<0.0020	--	0.0060	--	0.013	--	<0.0010	0.00021	--	<0.0040	--	0.0029	--	1.0	<0.0010	--	0.70	<0.00020	0.039	--	0.0023	--	<0.00020	--	--
W-306	Downgradient	Alluvial	*DUP* CH-CCR-FD04-0420	4/19/2020	--	--	0.0048	0.0051	0.011	--	0.0017	<0.0005	--	<0.005	--	<0.0025	<0.0025	1.5	<0.0025	--	1.2	--	0.039	--	<0.0025	--	<0.0005	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-0420	4/19/2020	--	--	0.0050	0.0055	0.012	--	0.0017	<0.0005	--	<0.005	--	<0.0025	<0.0025	1.1	<0.0025	--	1.3	--	0.042	--	<0.0025	--	<0.0005	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-1020	10/22/2020	0.00033 J	--	0.014	0.0071	0.022	--	<0.001	0.0002 J	--	0.0017 J	--	0.0030	0.0018 J	1.1	<0.002	--	0.73	<0.0002	0.073	--	0.0055	--	<0.0004	--	<0.8
W-306	Downgradient	Alluvial	CH-CCR-W306-0421	4/17/2021	0.00023 J	--	0.0056	0.0048	0.013	--	<0.001	<0.0002	--	<0.002	--	0.0012	0.00091 J	0.94	<0.001	--	0.79	<0.0002	0.041	--	0.0044	--	<0.0002	--	<0.7
W-306	Downgradient	Alluvial	CH-CCR-W306-1021	10/29/2021	<0.002	--	0.0050	0.0050	0.012	--	<0.001	0.00021	--	<0.002	--	0.0018	0.0014	0.84	0.00067 J	--	0.77	<0.0002	0.051	--	0.0031	--	<0.0002	--	0.4
W-306	Downgradient	Alluvial	CH-CCR-W306-0522	05/04/2022	0.0003 J	--	0.0058	0.0049	0.012	--	<0.001	0.00034	--	0.0016	--	0.0012	0.0012	0.87	<0.0005	--	0.77	<0.0002	0.044	--	0.0022	--	0.000077 J	--	<0.6
W-306	Downgradient	Alluvial	CH-CCR-W306-1022	10/23/2022	<0.001	--	0.0050	0.0052	0.011	--	<0.001	<0.0001	--	<0.001	--	0.0011	0.0011	<0.8	<0.0005	--	0.81	<0.0002	0.045	--	0.0016	--	<0.0001	--	0.9
W-306	Downgradient	Alluvial	CH-CCR-W306-0423	04/19/2023	0.00066 J	--	<0.005	0.0029 J	0.015	--	<0.001	0.00026 J	--	<0.01	--	<0.005	0.0015 J	<4	<0.005	--	0.81	<0.0002	0.056	--	<0.005	--	<0.001	--	0.8
W-306	Downgradient	Alluvial	CH-CCR-W306-1023	10/19/2023	<0.005	--	0.0065	0.0065	0.012 J	--	0.010	<0.0005	--	<0.005	--	<0.0025	<0.0025	1.0	<0.0025	--	0.93	<0.0002	0.047	--	<0.0025	--	<0.0005	--	<0.8
W-306	Downgradient	Alluvial	CH-CCR-W306-0424	04/23/2024	<0.005	--	0.008	0.0079	0.012	--	0.014	<0.0005	--	<0.005	--	<0.0025	<0.0025	0.79	<0.0025	--	0.82	<0.0002	0.056	--	0.0043	--	<0.0005	--	<0.9
W-306	Downgradient	Alluvial	CH-CCR-W306-1024	10/24/2024	<0.0005	--	0.0041	0.0047	0.009	--	<0.00044	0.00013	--	<0.002	--	<0.0019	<0.0025	1.9	<0.0005	--	0.633	<0.0002 UJ	0.0427	--	0.00064	--	<0.00051	--	0.8
W-314	Downgradient	Alluvial	7798	12/2/2015	<0.0025	--	<0.00050	--	0.016	--	<0.0010	0.00022	--	0.00078	--	0.016	--	1.2	0.00067	--	0.35	<0.00020	0.0066	--	0.00040	--	<0.00010	--	<0.7

Table C-5
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																											
			Constituent:		Antimony	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Molybdenum	Molybdenum	Selenium	Selenium	Thallium	Thallium	Total Radium
			Filtered:		N	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	Y	N	Y	N	Y	N
			Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAP GWPS	*0.006*	*0.006*	*0.01*	*0.01*	*2*	*2*	*0.004*	*0.005*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.015*	*0.418*	*0.002*	*0.1*	*0.1*	*0.05*	*0.05*	*0.002*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																												
W-314	Downgradient	Alluvial	CH-W-314-0316	3/10/2016	<0.015	--	<0.0049	--	0.013	--	<0.0010	<0.00046	--	<0.0087	--	0.018	--	<0.80	<0.0044	--	0.32	<0.00020	0.0072 J	--	<0.0015	--	<0.00026	--	<0.5
W-314	Downgradient	Alluvial	CH-CCR-W314-516	5/11/2016	<0.00020	--	<0.0010	--	0.012	--	<0.0010	<0.00020	--	<0.0010	--	0.015	--	<2.0	<0.0010	--	0.33	<0.00020	0.0073	--	<0.0010	--	<0.00020	--	<0.5
W-314	Downgradient	Alluvial	CH-CCR-W314-816	8/26/2016	0.00014	--	0.00056	--	0.013	--	<0.0010	0.00017	--	0.00078	--	0.015	--	0.93	<0.00050	--	0.32	<0.00020	0.013	--	<0.00050	--	<0.00010	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-916	9/22/2016	<0.00050	--	0.00060	--	0.012	--	<0.0010	0.00015	--	0.00073	--	0.013	--	1.1	0.00041	--	0.34	<0.00020	0.0082	--	0.00064	--	<0.00010	--	<0.7
W-314	Downgradient	Alluvial	CH-CCR-W314-217	2/21/2017	<0.0010	--	0.00054	--	0.011	--	<0.0010	0.00016	--	0.0010	--	0.013	--	0.97	<0.00050	--	0.35	<0.00020	0.0077	--	<0.00050	--	<0.00010	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-41117	4/11/2017	<0.0010	--	<0.00050	--	0.012	--	<0.0010	0.00019	--	0.0012	--	0.014	--	0.91	<0.00050	--	0.31	<0.00020	0.0086	--	<0.00050	--	<0.00010	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-42517	4/25/2017	<0.0010	--	<0.00050	--	0.011	--	<0.0010	0.00017	--	0.0017	--	0.013	--	0.80	0.0023	--	0.33	<0.00020	0.0079	--	<0.00050	--	<0.00010	--	0.5
W-314	Downgradient	Alluvial	CH-CCR-W314-52217	5/22/2017	<0.0010	--	<0.00050	--	0.0097	--	<0.0010	0.00016	--	0.0020	--	0.011	--	0.90	<0.00050	--	0.32	<0.00020	0.0070	--	<0.00050	--	<0.00010	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-52417	5/24/2017	<0.0040	--	<0.0020	--	0.013	--	<0.0010	<0.00040	--	<0.0020	--	0.014	--	0.90	<0.0020	--	0.34	<0.00020	0.0085	--	<0.0020	--	<0.00040	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-63017	6/30/2017	<0.0010	--	0.00069	--	0.011	--	<0.0010	0.00020	--	0.00098	--	0.012	--	1.1	<0.00050	--	0.30	<0.00020	0.0080	--	<0.00050	--	<0.00010	--	<0.7
W-314	Downgradient	Alluvial	CH-CCR-W314-72817	7/28/2017	<0.0010	--	0.00053	--	0.0093	--	<0.0010	0.00018	--	0.00087	--	0.012	--	0.90	<0.00050	--	0.30	<0.00020	0.0071	--	<0.00050	--	<0.00010	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-90717	9/7/2017	<0.0010	--	0.00091	--	0.011	--	<0.0010	0.00018	--	0.0012	--	0.013	--	0.90	<0.00050	--	0.31	<0.00020	0.0080	--	<0.00050	--	<0.00010	--	<0.7
W-314	Downgradient	Alluvial	CH-CCR-W314-120717	12/7/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	0.85	--	--	--	--	--	--	--	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-21518	2/15/2018	<0.0010	--	0.00060	--	0.012	--	<0.0010	0.00019	--	<0.0010	--	0.013	--	1.1	<0.00050	--	0.32	<0.00020	0.0085	--	<0.00050	--	<0.00010	--	0.2
W-314	Downgradient	Alluvial	CH-CCR-W-314-52018	5/20/2018	<0.0020	--	<0.0010	--	0.011	--	--	<0.00020	--	<0.0020	--	0.013	--	1.3	<0.0010	--	0.32	--	0.0093	--	<0.0010	--	<0.00020	--	<0.7
W-314	Downgradient	Alluvial	CH-CCR-W-314-102418	10/24/2018	--	--	0.00073	--	0.011	--	--	0.00019	--	0.0013	--	0.015	--	0.83	<0.00050	--	0.30	--	0.0087	--	<0.00050	--	<0.00010	--	--
W-314	Downgradient	Alluvial	CH-W-314-102418	10/24/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.7
W-314	Downgradient	Alluvial	CH-CCR-W314-12818	12/8/2018	<0.0050	--	<0.0020	--	0.013	--	--	<0.0010	--	0.014	--	0.014	--	0.89 J,UJ	<0.0010	--	0.32	<0.00020	0.0087	--	<0.0060	--	<0.0010	--	0.7
W-314	Downgradient	Alluvial	CH-CCR-W314-21519	2/15/2019	<0.0010	--	0.0011	--	0.011	--	<0.0010	0.00017	--	0.046	--	0.016	--	0.82	<0.00050	--	0.34	<0.00020	0.012	--	<0.00050	--	<0.00010	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-41619	4/16/2019	--	--	<0.00050	--	0.012	--	--	0.00021	--	0.094	--	0.016	--	0.87	<0.00050	--	0.29	--	0.026	--	<0.00050	--	<0.00010	--	<0.7
W-314	Downgradient	Alluvial	CH-CCR-W314-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	0.84	--	--	--	--	--	--	--	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-102419	10/24/2019	<0.0020	--	0.0015	--	0.013	--	<0.0010	0.00036	--	0.0081	--	0.019	--	<0.80 UJ	<0.0010	--	0.30	<0.00020	0.011	--	<0.0010	--	<0.00020	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-0420	4/19/2020	--	--	<0.0025	<0.0025	0.011	--	<0.0005	<0.0005	--	0.010	--	0.022	0.023	0.84	<0.0025	--	0.44 J	--	0.010	--	<0.0025	--	<0.0005	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-1020	10/23/2020	<0.002	--	0.0019	0.0016 J	0.011	--	<0.001	0.00031	--	0.0091	--	0.024	0.025	0.90	0.00058 J	--	0.31	<0.0002	0.011	--	0.002	--	<0.0002	--	<0.8
W-314	Downgradient	Alluvial	CH-CCR-W314-0421	4/16/2021	<0.002	--	0.0020	0.0011	0.013	--	<0.001	<0.0002	--	0.032	--	0.029	0.027	1.1	<0.001	--	0.32	<0.0002	0.015	--	0.0018	--	<0.0002	--	<0.7
W-314	Downgradient	Alluvial	CH-CCR-W314-1021	10/29/2021	<0.001	--	<0.0013	<0.0017	0.011	--	<0.001	0.00043	--	0.071	--	0.030	0.028	1.1	0.00088	--	0.30	<0.0002	0.016	--	0.00076	--	0.000021 J	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-0522	5/11/2022	<0.001	--	0.0014	0.0014	0.011	--	<0.001	0.00041	--	0.0063	--	0.032	0.033	1.0	0.00065	--	0.30 / 0.24	<0.0002	0.037	--	0.0010	--	<0.0001	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-1022	10/25/2022	<0.001	--	0.00073	0.00071	0.010	--	<0.001	0.00043	--	0.0015	--	0.033	0.035	1.0	0.00089	--	0.30	<0.0002	0.012	--	<0.0005	--	<0.0001	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-0423	04/20/2023	<0.01	--	<0.005	<0.005	0.0096	--	<0.001	0.00053 J	--	0.014	--	0.042	0.047	<4	<0.005	--	0.30	<0.0002	0.013	--	<0.005	--	<0.001	--	<0.6
W-314	Downgradient	Alluvial	CH-CCR-W314-1023	10/18/2023	<0.005	--	0.0025	0.0025	0.009 J	--	<0.001	0.00059	--	0.039	--	0.045	0.047	0.97	<0.0025	--	0.36	<0.0002	0.019	--	<0.0025	--	<0.0005	--	<0.8
W-314	Downgradient	Alluvial	CH-CCR-W314-0424	04/29/2024	<0.02	--	<0.01	<0.01	0.010	--	<0.001	<0.002	--	<0.02	--	0.051	0.052	0.75	<0.01	--	0.31	<0.0002	0.018	--	<0.01	--	<0.002	--	<0.8
W-314	Downgradient	Alluvial	CH-CCR-W314-1024	10/30/2024	<0.0025	--	<0.0025	<0.0025	0.009	--	<0.00044	0.00055	--	<0.01	--	0.0405	0.0402	1.2 J	<0.0025	--	0.238	<0.0002	0.0156	--	<0.0025	--	<0.00013	--	<0.7
BSX-01	Extraction Well	Moqui	CH-BAPD-BSX01-0621	6/14/2021	--	--	0.0019	--	--	--	--	--	--	--	--	0.014	--	1.7	--	--	0.23	--	0.065	--	--	--	--	--	--
BSX-01	Extraction Well	Moqui	CH-CRT-BSX01-0621_062221	6/22/2021	--	--	--	--	--	--	--	--	--	--	--	0.012	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-01	Extraction Well	Moqui	CH-CCR-BSX01-0821	8/2/2021	<0.001	--	0.0029	0.0032	0.018	--	<0.001	0.00045	--	0.00098 J	--	0.013	0.013	2.5	<0.0005	--	0.22	<0.0002	0.050	--	0.00082	--	<0.0001	--	<0.6
BSX-02	Extraction Well	Moqui	CH-CCR-BSX02-0821	8/2/2021	<0.001	--	0.0017	0.0018	0.014	--	<0.001	0.0011	--	0.00072 J	--	0.024	0.026	0.85	0.00081	--	0.23	<0.0002	0.053	--	0.00074	--	<0.0001	--	<0.6
BSX-03	Extraction Well	Moqui	CH-CRT-BSX03-0621_062621	6/26/2021	--	--	--	--	--	--	--	--	--	--	--	0.047	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-03	Extraction Well	Moqui	CH-CRT-BSX03-0621_062321	6/23/2021	--	--	--	--	--	--	--	--	--	--	--	0.022	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-03	Extraction Well	Moqui	CH-CCR-BSX03-0821	8/2/2021	<0.001	--	0.0025	0.0026	0.017	--	<0.001	0.0010	--	0.0011	--	0.048	0.048	2.9	<0.0005	--	0.21	<0.0002	0.062	--	0.0010	--	<0.0001	--	<0.6
BSX-04	Extraction Well	Moqui	CH-CRT-BSX04-0621_062721_AM	6/27/2021	--	--	--	--	--	--	--	--	--	--	--	0.025	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-04	Extraction Well	Moqui	CH-CRT-BSX04-0621_062721_PM	6/27/2021	--	--	--	--	--	--	--	--	--	--	--	0.027	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-04	Extraction Well	Moqui	CH-CCR-BSX04-0821	8/3/2021	<0.001	--	0.0029	0.0033	0.014	--	<0.001	0.00041	--	0.0012	--	0.029	0.030	0.99	0.00028 J	--	0.23	<0.0002	0.041	--	0.0014	--	<0.0001	--	0.4 J
BSX-05	Extraction Well	Moqui	CH-CCR-BSX05-0821	8/3/2021	<0.001	--	0.0049	0.0056	0.023	--	<0.001	0.000087 J	--	0.0013	--	0.019	0.019	2.4	0.00045 J	--	0.20	<0.0002	0.037	--	0.00096	--	<0.0001	--	<0.6
M-55A	Supplementary	Alluvial	7877	12/1/2015	<0.0025	--	0.0030	--	0.046	--	<0.0010	<0.00010	--	0.0017	--	0.00071	--	0.57	0.00094	--	0.33	<0.00020	0.0048	--	0.082	--	<0.00010	--	<0.9
M-55A	Supplementary	Alluvial	CH-M-55A-0316	3/9/2016	<0.015	--	<0.0049	--	0.021	--	<0.0010	<0.00046	--	<0.0087	--	<0.0013	--	<0.80	<0.0044	--	0.31	<0.00020	<0.0040	--	0.069	--	<0.00026	--	0.2
M-55A	Supplementary	Alluvial	CH-CCR-M55A-516	5/10/2016	0.00029	--	0.0028	--	0.016	--	<0.0010	<0.00020	--	0.0017	--	<0.0010	--	<2.0	<0.0010	--	0.34	<0.00020	0.0031	--	0.075	--	<0.00020	--	<0.5
M-55A	Supplementary	Alluvial	CH-CCR-M55A-816	8/26/2016	0.00047	--	0.0033	--	0.017	--	<0.0010	0.00019	--	0.0013	--	<0.00050	--	<0.80	<0.00050	--	0.33	<0.00020	0.043	--	0.087	--	<0.00010	--	<0.6
M-55A	Supplementary	Alluvial	CH-CCR-M55A-916	9/22/2016	<0.00050	--	0.00082	--	0.014	--	<0.0010	<0.00010	--	0.0091	--	0.00074	--	<0.80	<0.00010	--	0.36	<0.00020	0.0059	--	0.065	--	<0.00010	--	0.8
M-55A	Supplementary	Alluvial	CH-CCR-M55A-217	2/21/2017	<0.0010	--	0.0023	--	0.014	--	<0.0010	<0.00010	--	0.018	--	0.00057	--	<0.80	<0.00050	--	0.38	<0.00020	0.0068	--	0.079	--	<0.00010	--	<0.6
M-55A	Supplementary	Alluvial	CH-CCR-M55A-41217	4/12/2017	<0.0010	--	0.0025	--	0.014	--	<0.0010	<0.00010	--	0.014	--	<0.00050	--	<0.80	<0.00050	--	0.35	<0.00020	0.0055	--	0.082	--	0.00010	--	1.4
M-55A	Supplementary	Alluvial	CH-CCR-M55A-42517	4/25/2017	<0.0010	--	0.0025	--	0.013	--	<0.0010	<0.00010	--	0.020	--	<0.00050	--	<0.80	<0.00050	--	0.37	<0.00020	0.0065	--	0.080	--	<0.00010	--	1.0
M-55A	Supplementary	Alluvial	CH-CCR-M55A-51817	5/18/2017	<0.0010	--	0.0021	--	0.011	--	<0.0010	<0.00010	--	0.023	--	<0.00050	--	<0.80	<0.00050	--	0.37	<0.00020	0.0061	--	0.075	--	<0.00010	--	1.1
M-55A	Supplementary	Alluvial	CH-CCR-M55A-52417	5/24/2017	<0.0010	--	0.0031	--	0.014	--	<0.0010	<0.00010	--	0.024	--	<0.00050	--	<0.80	<0.00050	--	0.37	<0.00020	0.0059	--	0.090	--	<0.00010	--	1.5
M-55A	Supplementary	Alluvial	CH-CCR-M55A-70117	7/1/2017	<0.0010	--	0.0034	--	0.014	--	<0.0010	<0.00010	--	0.017	--	0.0016	--	<0.80	<0.00050	--	0.35	<0.00020	0.022	--	0.095	--	<0.00010	--	0.9
M-55A	Supplementary	Alluvial	CH-CCR-M55A-72817	7/28/2017	<0.0020	--	0.0031	--	0.014	--	<0.0010	<0.00020	--	0.051	--	0.0040	--	<0.80	<0.0010	--	0.35	<0.00020	0.0091	--	0.085	--	<0.00020	--	<0.7
M-55A	Supplementary	Alluvial	CH-CCR-M55A-90717	9/7/2017	<0.0040	--	0.0022	--	0.014	--	<0.0010	<0.00040	--	0.038	--	<0.0020	--	<0.80	<0.0020	--	0.37	<0.00020	0.0075	--	0.082	--	<0.00040	--	1.2
M-55A	Supplementary	Alluvial	CH-CCR-M55A-12818	12/8/2018	<0.0050	--	<0.0020	--	0.014	--	--	<0.0010	--	0.17	--	<0.0020	--	<0.80 J,UJ	<0.0010	--	0.39	<0.00020	0.020	--	0.083	--	<0.0010	--	0.9
M-55A	Supplementary	Alluvial	CH-CCR-M55A-21519	2/15/2019	<0.0010	--	0.0033	--	0.014	--	<0.0010	<0.00010	--	0.14	--	0.00095	--	<0.80	<0.00050	--	0.43	<0.00020	0.019	--	0.13	--	<0.00010	--	1.2
M-55A	Supplementary	Alluvial	CH-CCR-M55A-41619	4/16/2019	--	--	0.0025	--	0.014	--	--	<0.00010	--	0.044	--	0.00083	--	<0.80	<0.00050	--	0.37	--	0.0067	--	0.12	--	<0.00010	--	--
M-55A	Supplementary	Alluvial	CH-CCR-M55A-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
M-55A	Supplementary	Alluvial	CH-CCR-M55A-102419	10/24/2019	<0.0020	--	0.0023	--	0.016	--	<0.0010	<0.00020	--	0.0044	--	<0.0010	--	<0.80	<0.0010	--	0.38	<0.00020	0.0051	--	0.078	--	<0.00020	--	--
M-55A	Supplementary	Alluvial	CH-CCR-M55-0420	4/17/2020	--	--	0.0071	0.0050	0.014	--	0.00059 J	<0.0005	--	0.016	--	<0.0025	<0.0025	<0.8	<0.0005	--	<0.2	--	0.0048	--	0.12	--	<0.0001	--	--
M-55A	Supplementary	Alluvial	CH-CCR-M55-1020	10/24/2020	<0.002	--	0.0070	0.0052	0.016	--	<0.001	0.00009 J	--	0.015	--	0.00017 J	0.0005 J	0.49 J	<0.001	--	0.43	<0.0002	0.0043	--	0.11	--	0.000072 J	--	<0.8
M-55A	Supplementary	Alluvial	CH-CCR-M55-0421	4/18/2021	0.00026 J	--	0.0021	0.0018	0.015	--	<0.001	<0.0002	--	0.0068	--	<0.001	<0.001	0.58 J	<0.001	--	0.45	<0.0002	0.0047	--	0.13	--	<0.0002	--	<0.8
M-55A	Supplementary	Alluvial	CH-CCR-M55-1021	10/27/2021	<0.002	--	0.0012	0.0016	0.016	--	<0.001	0.000052 J	--	0.0043	--	0.0002 J	0.00011 J	0.59 J	<0.001	--	0.47	<0.0002	0.0052	--	0.16	--	0.00017 J	--	0.9
M-55A	Supplementary	Alluvial	CH-CCR-M55A-0522	5/12/2022	<0.001	--	0.0018	0.0011	0.013	--	<0.001	0.000057 J	--	0.0064	--	0.00018 J	0.00017 J	0.61 J	<0.0005	--	0.47 / 0.31	<0.0002	0.0039	--	0.17	--	0.00018	--	0.8
M-55A	Supplementary	Alluvial	CH-CCR-M55A-0423	04/20/2023	0.0012 J	--	<0.005	<0.005	0.014	--	<0.001	0.0003 J	--	0.010	--	<0.005	<0.005	<2	<0.005	--	0.49	<0.0002	0.0050	--	0.11	--	0.00017 J	--	0.9
M-55A	Supplementary	Alluvial	CH-CCR-M55A-1023	10/12/2023	<0.01	--	0.0071	0.0069	0.015	--	<0.001	<0.001	--	<0.01	--	<0.005	<0.005	0.6	<0.005	--	0.45	<0.0002	0.0050	--	0.14	--	<0.001	--	2.3
M-55A	Supplementary	Alluvial	CH-CCR-M55A-0424	04/22/2024	<0.001	--	0.0026	0.0024	0.014 J	--	0.0069	<0.0001	--	0.0069	--	<0.0005	<0.0005	0.65	<0.0005 UJ	--	0.46	0.00022	0.0048	--	0.17	--	<0.0001	--	<0.9
M-55A	Supplementary	Alluvial	CH-CCR-M55A-1024	10/22/2024	<0.0005	--	0.0011	<0.0025	0.0175	--	<0.0011	0.00016	--	0.0083	--	<0.0005	<0.0025	<0.761	<0.0025	--	0.422	<0.0002 UJ	0.0045	--	0.137	--	<0.00013	--	2.5
MW-69A	Supplementary	Alluvial	CH-CCR-M69-0420	4/19/2020	--	--	<0.0025	<0.0025	0.027	--	0.00052 J	0.00011	--	<0.005	--	0.027	0.026	1.5	<0.0005	--	<0.2	--	0.055	--	<0.0025	--	<0.0001	--	--
MW-69A	Supplementary	Alluvial	CH-CCR-M69-1020	10/23/2020	<0.01	--	0.0099	0.0047	0.024	--	<0.001	<0.001	--	<0.01	--	0.025	0.027	1.5	<0.005	--	0.19	<0.0002	0.047	--	0.0089	--	<0.001	--	<0.8
MW-69A	Supplementary	Alluvial	CH-CCR-M69-0421	4/17/2021	<0.002	--	0.0023	0.00081 J	0.019	--	<0.001	<0.0002	--	0.0086	--	0.017	0.015	1.3	<0.001	--	0.21	<0.0002	0.020	--	0.0011	--	<0.0002	--	<0.8
MW-69A	Supplementary	Alluvial	CH-CCR-M69-1021	10/29/2021	<0.002	--	0.00096 J	0.0012	0.021	--	<0.001	0.00016 J	--	0.012	--	0.022	0.019	1.1	<0.001	--	0.20	<0.0002	0.040	--	0.0022	--	<0.0002	--	0.6
MW-69A	Supplementary	Alluvial	CH-CCR-M69A-0522	05/04/2022	0.000076 J	0.000073 J	0.0019	0.0010	0.016	0.015	<0.001	0.00023	0.00023	0.075	0.019	0.017	0.016	1.5	<0.0005	<0.0005	0.21	<0.0002	0.024	0.021	0.0010	0.0014	0.00002 J	<0.0001	<0.7
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-1022	10/24/2022	<0.001	--	0.00089	0.00065	0.017	--	<0.001	0.00018	--	0.028	--	0.019	0.017	1.1	<0.0005	--	0.22	<0.0002	0.040	--	0.00094	--	<0.0001	--	<0.6
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-0423	04/19/2023	0.001 J	--	<0.005	<0.005	0.014	--	<0.001	0.00024 J	--	0.019	--	0.012	0.014	<2	<0.005	--	0.23	<0.0002	0.018	--	<0.005	--	<0.001	--	<0.6
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-1023	10/19/2023	<0.005	--	0.0025	<0.0025	0.019 J	--	<0.001	<0.0005	--	<0.005	--	0.015	0.015	1.4	<0.0025	--	0.26	<0.0002	0.029	--	<0.0025	--	<0.0005	--	1.2
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-0424	04/25/2024	<0.001	--	0.0021	0.0019	0.014 J	--	0.0055	<0.0001	--	0.21	--	0.016	0.016	1.3	<0.0005 UJ	--	0.20	<0.0002	0.038	--	0.0012	--	<0.0001	--	<0.9
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-1024	10/25/2024	<0.0005	--	<0.0005	<0.0025	0.0116	--	<0.00044	0.00015	--	0.0554	--	0.0132	0.0134	1.5	<0.0005	--	0.186	<0.0002 UJ	0.0289	--	<0.0005	--	<0.00013	--	0.5
MW-70M	Supplementary	Moqui	CH-CCR-M70-0420	4/19/2020	--	--	<0.0025	<0.0025	0.014	--	<0.0005	0.00053	--	<0.005	--	0.025	0.024	1.2	0.0023	--	<0.2	--	0.034	--	<0.0025	--	<0.0001	--	--
MW-70M	Supplementary	Moqui	CH-CCR-M70-1020	10/23/2020	<0.002	--	0.0013 J	0.0032 J	0.013	--	<0.001	0.00038	--	<0.002	--	0.022	0.023	1.1	0.0025	--	0.20	<0.0002	0.031	--	0.0028	--	0.000032 J	--	<0.8
MW-70M	Supplementary	Moqui	*DUP* CH-CCR-FD03-1020	10/23/2020	<0.002	--	0.0020	0.0013 J	0.013	--	<0.001	0.00042	--	0.0014 J	--	0.022	0.021	1.1	0.0022	--	0.19	<0.0002	0.030	--	0.0027	--	<0.0002	--	<0.8
MW-70M	Supplementary	Moqui	CH-CCR-M70-0421	4/17/2021	<0.002	--	0.0016 J	0.00099 J	0.013	--	<0.001	<0.0002	--	0.0010 J	--	0.023	0.023	1.2	0.0016	--	0.20	<0.0002	0.034	--	0.0019	--	<0.0002	--	<0.8

Table C-5
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																											
				Constituent:	Antimony	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Molybdenum	Molybdenum	Selenium	Selenium	Thallium	Thallium	Total Radium
				Filtered:	N	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	Y	N	Y	N	Y	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAP GWPS	*0.006*	*0.006*	*0.01*	*0.01*	*2*	*2*	*0.004*	*0.005*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.015*	*0.418*	*0.002*	*0.1*	*0.1*	*0.05*	*0.05*	*0.002*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																												
MW-70M	Supplementary	Moqui	CH-CCR-M70-1021	10/29/2021	<0.002	--	<0.002	0.0011	0.012	--	<0.001	0.00053	--	0.0018 J	--	0.021	0.021	0.97	0.0024	--	0.19	<0.0002	0.034	--	0.0048	--	0.000092 J	--	0.6
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-0522	05/04/2022	0.000068 J	<0.001	0.001	0.0014	0.010	0.0099	<0.001	0.00049	0.00045	0.0018	0.0013	0.018	0.019	1.3	0.0020	0.0020	0.19	<0.0002	0.031	0.034	0.0023	0.0024	<0.0001	0.00012 J	0.8
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-1022	10/24/2022	<0.001	--	0.00080	0.00081	0.011	--	<0.001	0.00042	--	0.0089	--	0.020	0.020	1.1	0.0020	--	0.21	<0.0002	0.035	--	0.0016	--	<0.0001	--	<0.6
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-0423	04/19/2023	0.00088 J	--	<0.005	<0.005	0.014	--	<0.001	0.00071 J	--	0.011	--	0.017	0.022	<2	<0.005	--	0.21	<0.0002	0.035	--	<0.005	--	0.00019 J	--	0.6
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-1023	10/18/2023	<0.005	--	<0.0025	<0.0025	0.011 J	--	<0.001	<0.0005	--	0.0079	--	0.016	0.016	1.3	<0.0025	--	0.25	<0.0002	0.030	--	<0.0025	--	<0.0005	--	<0.8
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-0424	04/25/2024	<0.001	--	0.0019	0.002	0.010 J	--	0.0056	0.00038	--	0.0012	--	0.016	0.017	1.3	0.0016 J	--	0.19	<0.0002	0.038	--	0.0025	--	<0.0001	--	<0.9
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-1024	10/28/2024	<0.0005	--	0.00074	<0.0025	0.0101	--	<0.00044	0.00033	--	<0.002	--	0.0144	0.0154	0.992 J	0.0019	--	0.144	<0.0002	0.0314	--	0.0019	--	<0.00013	--	<0.8
W-301	Supplementary	Alluvial	CH-CCR-W301-12718	12/7/2018	<0.0050	--	<0.0020	--	0.013	--	--	<0.0010	--	<0.0050	--	0.017	--	<0.80 J,UJ	0.0012	--	0.43	<0.00020	0.080	--	<0.0060	--	<0.0010	--	<0.7
W-301	Supplementary	Alluvial	CH-CCR-W301-21519	2/15/2019	<0.0010	--	0.0017	--	0.0080	--	<0.0010	0.00018	--	<0.0010	--	0.018	--	<0.40 UJ	<0.00050	--	0.59	<0.00020	0.0046	--	0.0084	--	<0.00010	--	0.7
W-301	Supplementary	Alluvial	CH-CCR-W301-41619	4/16/2019	--	--	0.0019	--	0.0083	--	--	0.00014	--	0.0017	--	0.018	--	<0.80	<0.00050	--	0.50	--	0.0051	--	0.0076	--	<0.00010	--	--
W-301	Supplementary	Alluvial	CH-CCR-W301-8919	8/9/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
W-301	Supplementary	Alluvial	CH-CCR-W301-102319	10/23/2019	<0.0020	--	0.0030	--	0.0092	--	<0.0010	<0.00020	--	<0.0040	--	0.016	--	<0.80 UJ	<0.0010	--	0.52	<0.00020	0.0069	--	0.0056	--	<0.00020	--	--
W-301	Supplementary	Alluvial	CH-CCR-W301-0420	4/18/2020	--	--	<0.0025	<0.0025	0.0082	--	0.00063 J	<0.0005	--	<0.005	--	0.021	0.022	<0.8	<0.0005	--	0.41 J	--	0.0051	--	0.0060	--	<0.0001	--	--
W-301	Supplementary	Alluvial	CH-CCR-W301-1020	10/22/2020	<0.002	--	0.0032	0.0017 J	0.0083	--	<0.001	0.00016 J	--	0.00089 J	--	0.022	0.022	0.33 J	<0.001	--	0.57	<0.0002	0.0057	--	0.0035	--	0.000086 J	--	<0.8
W-301	Supplementary	Alluvial	CH-CCR-W301-0421	4/17/2021	<0.002	--	0.0028	0.0020	0.0093	--	<0.001	<0.0002	--	0.029	--	0.023	0.022	0.34 J	<0.001	--	0.58	<0.0002	0.0093	--	0.0072	--	<0.0002	--	<0.8
W-301	Supplementary	Alluvial	CH-CCR-W301-1021	10/28/2021	<0.002	--	0.0025	0.0026	0.0085	--	<0.001	0.00017 J	--	0.0091	--	0.025	0.021	0.13 J	<0.001	--	0.57	<0.0002	0.0074	--	0.0071	--	0.000086 J	--	0.5
W-301	Supplementary	Alluvial	CH-CCR-W301-0522	05/03/2022	0.000099 J	--	0.002 J	0.0031 J	0.0082	--	<0.001	<0.00025	--	0.0075	--	0.021	0.023	0.43 J	<0.0005	--	0.57	<0.0002	0.0062	--	0.0056	--	0.000082 J	--	<0.6
W-301	Supplementary	Alluvial	CH-CCR-W301-1022	10/22/2022	<0.001	--	0.0017	0.0018	0.0074	--	<0.001	0.00013	--	0.0089	--	0.022	0.023	<0.8	<0.0005	--	0.60	<0.0002	0.0061	--	0.0042	--	<0.0001	--	<0.7
W-301	Supplementary	Alluvial	CH-CCR-W301-0423	04/18/2023	0.00056 J	--	<0.005	<0.005	0.0096	--	<0.001	0.00025 J	--	0.0085 J	--	0.027	0.022	<4	<0.005	--	0.63	<0.0002	0.0076	--	<0.005	--	0.00014 J	--	<0.6
W-301	Supplementary	Alluvial	CH-CCR-W301-1023	10/19/2023	<0.005	--	0.0037	0.0035	0.0072 J	--	<0.001	<0.0005	--	<0.005	--	0.023	0.022	<0.8	<0.0025	--	0.67	<0.0002	0.0059	--	0.0034	--	<0.0005	--	<0.8
W-301	Supplementary	Alluvial	CH-CCR-W301-0424	04/23/2024	<0.001	--	0.0052	0.0031	0.0072	--	0.0081	0.00017	--	0.021	--	0.024	0.022	<0.4	<0.0025	--	0.57	<0.0002	0.0084	--	0.0058	--	<0.0005	--	<0.9
W-301	Supplementary	Alluvial	CH-CCR-W301-1024	10/24/2024	<0.0005	--	0.0012	<0.0025	0.0082	--	<0.00044	0.00011	--	0.0232	--	0.0209	0.0229	0.906 J	<0.01	--	0.491	<0.0002 UJ	0.0073	--	0.0028	--	<0.00051	--	<0.8
W-302	Supplementary	Alluvial	CH-CCR-W302-12718	12/7/2018	<0.0050	--	<0.0020	--	0.014	--	--	<0.0010	--	<0.0050	--	0.0049	--	0.98 J,UJ	<0.0010	--	0.32	<0.00020	0.068	--	<0.0060	--	<0.0010	--	<0.7
W-302	Supplementary	Alluvial	CH-CCR-W302-21519	2/15/2019	<0.0010	--	0.0043	--	0.36	--	<0.0010	0.00089	--	0.020	--	0.022	--	0.88	0.028	--	0.37	0.00022	0.0039	--	0.0035	--	0.00016	--	0.7
W-302	Supplementary	Alluvial	CH-CCR-W302-41719	4/17/2019	--	--	0.00076	--	0.015	--	--	<0.00010	--	<0.0010	--	0.0054	--	0.82	<0.00050	--	0.31	--	0.016	--	<0.00050	--	<0.00010	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-8919	8/9/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-102319	10/23/2019	<0.0020	--	0.0015	--	0.014	--	<0.0010	<0.00020	--	0.019	--	0.0055	--	0.80 J	<0.0010	--	0.32	<0.00020	0.015	--	<0.0010	--	<0.00020	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-0420	4/17/2020	--	--	<0.0025	<0.0025	0.013	--	<0.0005	<0.0005	--	0.086	--	0.0064	0.0064	0.97	<0.0005	--	<0.2	--	0.012	--	<0.0025	--	<0.0001	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-1020	10/23/2020	<0.002	--	0.0013	0.0015 J	0.014	--	<0.001	<0.0002	--	0.031	--	0.0052	0.0056	0.82	0.00066 J	--	0.37	<0.0002	0.0085	--	0.00051 J	--	0.000028 J	--	<0.8
W-302	Supplementary	Alluvial	CH-CCR-W302-0421	4/17/2021	<0.002	--	0.0021	0.0013	0.014	--	<0.001	<0.0002	--	0.025	--	0.0048	0.0047	0.95	<0.001	--	0.40	<0.0002	0.0084	--	0.0011	--	<0.0002	--	<0.8
W-302	Supplementary	Alluvial	CH-CCR-W302-1021	10/30/2021	<0.002	--	0.0017	0.0017	0.015	--	<0.001	<0.0002	--	0.050	--	0.0064	0.0056	0.72 J	<0.001	--	0.39	<0.0002	0.013	--	0.0022	--	<0.0002	--	0.6
W-302	Supplementary	Alluvial	CH-CCR-W302-0522	5/11/2022	<0.001	--	0.0015	0.001	0.013	--	<0.001	<0.0001	--	0.026	--	0.0068	0.0066	0.90	<0.0005	--	0.39 / 0.24	<0.0002	0.0099	--	0.00084	--	<0.0001	--	<0.6
W-302	Supplementary	Alluvial	CH-CCR-W302-1022	10/25/2022	<0.001	--	0.00066	0.00062	0.012	--	<0.001	<0.0001	--	0.014	--	0.0056	0.0053	<0.8	<0.0005	--	0.41	<0.0002	0.0030	--	0.00059	--	<0.0001	--	<0.6
W-302	Supplementary	Alluvial	CH-CCR-W302-0423	04/24/2023	<0.01	--	<0.002	<0.002	0.014	--	<0.01	<0.002	--	0.013	--	0.0069	0.0069	<4	<0.002	--	0.40	<0.0002	0.0031 J	--	<0.01	--	<0.002	--	1.0
W-302	Supplementary	Alluvial	CH-CCR-W302-1023	10/12/2023	<0.01	--	0.0063	0.0062	0.016	--	<0.001	<0.001	--	0.048	--	0.0065	0.006	1.1	<0.005	--	0.41	<0.0002	0.0080	--	<0.005	--	<0.001	--	0.6
W-302	Supplementary	Alluvial	CH-CCR-W302-0424	04/19/2024	<0.001	--	0.0021	0.0021	0.013	--	<0.001	<0.0001	--	0.019	--	0.0060	0.0061	<0.4	<0.0005	--	0.39	<0.0002	0.0051	--	0.00096	--	<0.0001	--	<0.8
W-302	Supplementary	Alluvial	CH-CCR-W302-1024	10/23/2024	<0.0005	--	<0.0005	<0.0025	0.0121	--	<0.00044	<0.00008	--	0.0272	--	0.0066	0.0066	1.19 J	<0.0005	--	0.362	<0.0002 UJ	0.0057	--	<0.0005	--	<0.000026	--	0.6
W-303	Supplementary	Moqui	--	4/18/2020	--	--	<0.0025	<0.0025	0.0048	--	<0.0010	<0.00025	--	<0.0050	--	0.027	--	<0.8	<0.0005	--	<0.2	--	0.024	--	<0.0025	--	<0.0001	--	--
W-303	Supplementary	Moqui	CH-CCR-W303-1020	10/22/2020	<0.002	--	0.0014	0.0023	0.0046	--	<0.001	0.000088 J	--	0.025	--	0.021	0.023	0.48 J	<0.001	--	0.32	<0.0002	0.019	--	0.00072 J	--	<0.0002	--	0.8
W-303	Supplementary	Moqui	CH-CCR-W303-0421	4/17/2021	<0.002	--	0.0019 J	0.0013	0.0046	--	<0.001	<0.0002	--	0.036	--	0.022	0.023	0.50 J	<0.001	--	0.33	<0.0002	0.050	--	0.0019	--	<0.0002	--	<0.8
W-303	Supplementary	Moqui	CH-CCR-W303-1021	10/28/2021	<0.002	--	0.0018	0.0018	0.0034	--	<0.001	0.00061	--	0.010	--	0.022	0.019	0.32 J	<0.001	--	0.39	<0.0002	0.059	--	0.0027	--	<0.0002	--	<0.6
W-303	Supplementary	Moqui	CH-CCR-W303-1022	10/22/2022	<0.001	--	0.0012	0.0012	0.0028	--	<0.001	0.00049	--	0.049	--	0.021	0.020	<0.8	<0.0005	--	0.40	<0.0002	0.080	--	0.00090	--	<0.0001	--	1.4
W-303	Supplementary	Moqui	CH-CCR-W303-0522	05/04/2022	0.00015 J	--	0.0012	0.00082	0.0043	--	<0.001	0.00055	--	0.074	--	0.019	0.022	0.67 J	<0.0005	--	0.36	<0.0002	0.032	--	0.0014	--	0.000039 J	--	<0.6
W-303	Supplementary	Moqui	CH-CCR-W303-0423	04/18/2023	0.00049 J	--	0.0027	<0.005	0.0044 J	--	<0.001	<0.001	--	0.041	--	0.020	0.019	<4	<0.005	--	0.30	<0.0002	0.027	--	<0.005	--	<0.001	--	1.1
W-303	Supplementary	Moqui	CH-CCR-W303-1023	10/19/2023	<0.005	--	0.0027	0.0028	0.0037 J	--	<0.001	<0.0005	--	0.014	--	0.020	0.020	<0.8	<0.0025	--	0.48	<0.0002	0.031	--	<0.0025	--	<0.0005	--	<0.8
W-303	Supplementary	Moqui	CH-CCR-W303-0424	04/23/2024	<0.001	--	0.0022	0.002	0.004	--	0.0069	<0.0001	--	0.028	--	0.019	0.019	0.56	<0.0005	--	0.32	<0.0002	0.033	--	0.0015	--	<0.0001	--	<0.9
W-303	Supplementary	Moqui	CH-CCR-W303-1024	10/24/2024	<0.0005	--	0.00053	<0.0025	0.0026	--	<0.00044	<0.00008	--	0.0464	--	0.015	0.017	<0.761	<0.0005	--	0.31	<0.0002 UJ	0.0191	--	<0.0005	--	<0.00013	--	<0.8
W-304	Supplementary	Alluvial	CH-CCR-W304-12718	12/7/2018	<0.0050	--	<0.0020	--	0.0083	--	--	<0.0010	--	<0.0050	--	0.0034	--	<0.80 J,UJ	<0.0010	--	0.40	<0.00020	0.026	--	<0.0060	--	<0.0010	--	<0.7
W-304	Supplementary	Alluvial	CH-CCR-W304-21519	2/15/2019	<0.0010	--	0.0020	--	0.011	--	<0.0010	<0.00010	--	<0.0010	--	0.0029	--	<0.80	<0.00050	--	0.48	<0.00020	0.0017	--	0.00059	--	<0.00010	--	<0.6
W-304	Supplementary	Alluvial	CH-CCR-W304-41619	4/16/2019	--	--	<0.00050	--	0.0089	--	--	<0.00010	--	<0.0010	--	0.0020	--	<0.80	<0.00050	--	0.41	--	0.0048	--	0.00066	--	<0.00010	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-8819	8/8/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
W-304	Supplementary	Alluvial	*DUP* CH-CCR-FD02-102419	10/24/2019	<0.0010	--	0.00093	--	0.015	--	<0.0010	<0.00010	--	0.0016	--	0.0029	--	<0.80 UJ	<0.00050	--	0.45	<0.00020	0.0036	--	<0.00050	--	<0.00010	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-102419	10/24/2019	<0.0020	--	0.0014	--	0.014	--	<0.0010	<0.00020	--	<0.0020	--	0.0028	--	<0.80	<0.0010	--	0.45	<0.00020	0.0042	--	0.0012	--	<0.00020	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-0420	4/17/2020	--	--	<0.0025	0.0029	0.0069	--	<0.0005	<0.0005	--	<0.005	--	0.0030	0.0032	<0.8	<0.0005	--	0.46 J	--	0.0046	--	<0.0025	--	<0.0001	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-1020	10/23/2020	<0.002	--	0.0010	<0.002	0.0091	--	<0.001	<0.0002	--	0.0013 J	--	0.0029	0.0034	0.25 J	<0.001	--	0.45	<0.0002	0.0028	--	0.00021 J	--	0.000028 J	--	<0.8
W-304	Supplementary	Alluvial	CH-CCR-W304-0421	4/18/2021	<0.002	--	0.0016 J	0.00072 J	0.0076	--	<0.001	<0.0002	--	0.0079	--	0.0040	0.0036	0.24 J	<0.001	--	0.42	<0.0002	0.0046	--	0.0016	--	<0.0002	--	<0.8
W-304	Supplementary	Alluvial	CH-CCR-W304-1021	10/28/2021	<0.002	--	0.00098 J	0.00090	0.0070	--	<0.001	0.000046 J	--	0.0038	--	0.0070	0.0060	0.16 J	<0.001	--	0.39	<0.0002	0.004	--	0.0023	--	<0.0002	--	<0.6
W-304	Supplementary	Alluvial	CH-CCR-W304-0522	5/11/2022	<0.001	--	0.00098	0.00084	0.0087	--	<0.001	0.000053 J	--	0.018	--	0.009	0.0088	0.49 J	0.00026 J	--	0.38 / 0.33	<0.0002	0.0062	--	0.00091	--	<0.0001	--	<0.6
W-304	Supplementary	Alluvial	CH-CCR-W304-1022	10/25/2022	<0.001	--	0.00051	<0.0005	0.0079	--	<0.001	<0.0001	--	0.018	--	0.0090	0.0089	<0.8	<0.0005	--	0.41	<0.0002	0.0045	--	0.00063	--	<0.0001	--	<0.6
W-304	Supplementary	Alluvial	CH-CCR-W304-0423	04/24/2023	<0.01	--	<0.002	<0.002	0.0081	--	<0.001	<0.002	--	0.0059 J	--	0.0095	0.0094	<4	<0.002	--	0.38	<0.0002	0.0059	--	<0.01	--	<0.002	--	<0.6
W-304	Supplementary	Alluvial	CH-CCR-W304-1023	10/12/2023	<0.01	--	0.0059	0.006	0.0095	--	<0.001	<0.001	--	0.016	--	0.0092	0.0093	0.52	<0.005	--	0.37	<0.0002	0.0054	--	<0.005	--	<0.001	--	1.3
W-304	Supplementary	Alluvial	CH-CCR-W304-0424	04/22/2024	<0.001	--	0.0016	0.0017	0.0093	--	0.0055	0.00010	--	0.0061	--	0.011	0.011	<0.4	<0.0005	--	0.40	<0.0002	0.0067	--	0.0012	--	<0.0001	--	<0.9
W-304	Supplementary	Alluvial	CH-CCR-W304-1024	10/23/2024	<0.0005	--	<0.0005	<0.0025	0.0073	--	<0.00044	<0.00008	--	<0.002	--	0.0101	0.0106	0.888 J	<0.0005	--	0.317	<0.0002 UJ	0.0043	--	<0.0005	--	<0.000026	--	<0.8
W-307	Supplementary	Alluvial	CH-CCR-W307-12818	12/8/2018	<0.0050	--	<0.0020	--	0.012	--	--	<0.0010	--	<0.0050	--	0.076	--	<0.80 J,UJ	0.0020	--	0.24	<0.00020	0.0044	--	<0.0060	--	<0.0010	--	<0.7
W-307	Supplementary	Alluvial	CH-CCR-W307-21519	2/15/2019	<0.0010	--	0.00088	--	0.012	--	<0.0010	0.00028	--	<0.0010	--	0.073	--	<0.80	0.00085	--	0.26	<0.00020	0.0045	--	0.00063	--	<0.00010	--	<0.6
W-307	Supplementary	Alluvial	CH-CCR-W307-41619	4/16/2019	--	--	0.0011	--	0.012	--	--	0.00062	--	<0.0010	--	0.080	--	<0.80	0.0018	--	0.22	--	0.0068	--	0.00064	--	<0.00010	--	--
W-307	Supplementary	Alluvial	CH-APP-W307-62519	6/25/2019	--	--	--	--	--	--	<0.0010	--	--	0.0069	--	--	--	<0.40	--	--	--	--	--	--	--	--	<0.00010	--	--
W-307	Supplementary	Alluvial	CH-CCR-W307-8819	8/8/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
W-307	Supplementary	Alluvial	CH-CCR-W307-102419	10/24/2019	<0.0020	--	<0.0020	--	0.013	--	<0.0010	0.00049	--	0.016	--	0.082	--	<0.80	0.0011	--	0.23	<0.00020	0.011	--	<0.0010	--	<0.00020	--	--
W-307	Supplementary	Alluvial	CH-CCR-W307-0420	4/17/2020	--	--	<0.0025	<0.0025	0.012	--	<0.0005	<0.0005	--	0.013	--	0.084	0.085	<0.8	0.0011	--	0.29 J	--	0.011	--	<0.0025	--	<0.0001	--	--
W-307	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1020	10/23/2020	<0.002	--	0.0014	0.0020	0.013	--	<0.001	0.00056	--	0.013	--	0.070	0.074	0.49 J	0.0011	--	0.26	<0.0002	0.017	--	0.0024	--	<0.0002	--	<0.8
W-307	Supplementary	Alluvial	CH-CCR-W307-0421	4/18/2021	0.000092 J	--	0.0020	0.0014	0.013	--	<0.001	0.00013 J	--	0.0055	--	0.076	0.073	0.38 J	0.00078 J	--	0.26	<0.0002	0.019	--	0.0018	--	<0.0002	--	<0.7
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1021	10/28/2021	<0.002	--	0.0017	0.0019	0.028 J	--	<0.001	0.00071	--	0.011	--	0.072	0.055	0.56 J	0.0010	--	0.28	<0.0002	0.027	--	0.0021	--	<0.0002	--	<0.6
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1021	10/28/2021	<0.001	--	0.0018	0.0022	0.022 J	--	<0.001	0.00054	--	<0.0092	--	0.062	0.056	0.55 J	0.00090	--	0.26	<0.0002	0.022	--	0.0012	--	0.000054 J	--	<0.6
W-307R	Supplementary	Alluvial	CH-CRT-W307R-1221	12/1/2021	--	--	--	--	--	--	--	--	--	0.063	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CRT2-W307R-1221	12/1/2021	--	--	--	--	--	--	--	--	--	0.062	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CRT3-W307R-1221	12/2/2021	--	--	--	--	--	--	--	--	--	0.066	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CRT4-W307R-1221	12/2/2021	--	--	--	--	--	--	--	--	--	0.066	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CCR-W307R-0522	5/12/2022	<0.001	--	0.0015	0.00093 J	0.011	--	<0.001	0.00032	--	0.002	--	0.060	0.057	0.55 J	0.00058	--	0.28 / 0.18	<0.0002	0.021	--	0.0014	--	0.00055 J	--	<0.6
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD04-0522	5/12/2022	<0.001	--	0.0018	0.0018 J	0.012	--	<0.001	0.00031	--	0.0022	--	0.060	0.061	0.47 J	0.00075	--	0.26 / 0.20	<0.0002	0.021	--	0.0016	--	<0.0001 UJ	--	0.8
W-307R	Supplementary	Alluvial	CH-CCR-SS06-0522	5/12/2022	<0.01	--	<0.005	<0.005	0.011 J	--	<0.00125	0.000408 J	--	<0.01	--	0.0596	0.0657	<0.25 / 0.32 J	0.00061 J	--	0.234	<0.001	0.024	--	<0.00125	--	<0.0025	--	--
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1022	10/25/2022	<0.001	--	0.0010	0.00097	0.010	--	<0.001	0.00022	--	0.0025 J	--	0.054	0.056	<0.8	0.00050	--	0.26	<0.0002	0.021	--	<0.0005	--	<0.0001	--	<0.6
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-1022	10/25/2022	<0.001	--	0.0011	0.00099	0.011	--	<0.001	0.00021	--	0.0037 J	--	0.056	0.054	<0.8	0.00063	--	0.26	<0.0002	0.021	--	<0.0005	--	<0.0001	--	<0.6
W-307R	Supplementary	Alluvial	CH-CCR-W307R-0423	04/24/2023	<0.01	--	0.00089 J	<0.002	0.011	--	<0.01	<0.002	--	0.0021 J	--	0.063	0.059	<4	<0.002	--	0.26	<0.0002	0.023	--	<0.01	--	<0.002	--	<0.6

Table C-5
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																											
Constituent:					Antimony	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Molybdenum	Molybdenum	Selenium	Selenium	Thallium	Thallium	Total Radium
Filtered:					N	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	Y	N	Y	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAP GWPS	0.006	0.006	0.01	0.01	2	2	0.004	0.005	0.005	0.1	0.1	0.006	0.006	4	0.015	0.015	0.418	0.002	0.1	0.1	0.05	0.05	0.002	0.002	5
Well ID	Designation	CCR Unit	Sample ID	Sample Date																												
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-0423	04/24/2023	<0.01	--	**0.00085 J**	**0.0017 J**	0.010	--	<0.001	<0.002	--	**0.0023 J**	--	0.064	0.064	<4	<0.002	--	0.26	<0.0002	0.024	--	<0.01	--	<0.002	--	0.9
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1023	10/12/2023	<0.001	--	0.0013	0.0012	0.010	--	<0.001	0.00042	--	0.0019	--	0.054	0.053	0.62	<0.0005	--	0.24	<0.0002	0.020	--	<0.0005	--	<0.0001	--	1.0
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-1023	10/12/2023	<0.001	--	0.0012	0.0010	0.010	--	<0.001	0.00047	--	0.0025	--	0.053	0.051	0.61	0.0005	--	0.25	<0.0002	0.020	--	<0.0005	--	<0.0001	--	<0.7
W-307R	Supplementary	Alluvial	CH-CCR-W307R-0424	04/22/2024	<0.001	--	0.0027	0.0027	0.010	--	0.0060	0.00017	--	0.0037	--	0.052	0.052	<0.4	<0.0005	--	0.27	<0.0002	0.013	--	0.0011	--	<0.0001	--	<0.9
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-0424	04/22/2024	<0.001	--	0.0028	0.0026	0.010	--	0.0058	0.00016	--	0.003	--	0.053	0.051	<0.4	0.00050	--	0.28	<0.0002	0.013	--	0.0014	--	<0.0001	--	<0.9
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1024	10/22/2024	<0.0005	--	0.00096	<0.0025	0.0086	--	<0.00087	0.00012	--	0.0035	--	0.0468	0.0501	<0.761	0.00050	--	0.211	<0.0002 UJ	0.013	--	<0.0005	--	<0.000026	--	<0.8
W-307R	Supplementary	Alluvial	CH-CCR-FD06-1024	10/22/2024	<0.0005	--	0.001	<0.0025	0.0091	--	<0.00046 U	0.00014	--	0.0039	--	0.0514	0.0487	<0.761	0.00055	--	0.224	<0.0002 UJ	0.0142	--	<0.0005	--	0.000031 J	--	2.0
W-308	Supplementary	Alluvial	CH-CCR-W308-12818	12/8/2018	<0.0050	--	0.0023	--	0.0082	--	--	<0.0010	--	<0.0050	--	0.0033	--	<0.80 J,UJ	<0.0010	--	0.37	<0.00020	0.032	--	<0.0060	--	<0.0010	--	<0.7
W-308	Supplementary	Alluvial	CH-CCR-W308-21519	2/15/2019	<0.0010	--	0.0019	--	0.0066	--	<0.0010	<0.00010	--	<0.0010	--	0.00079	--	<0.80	<0.00050	--	0.39	<0.00020	0.0020	--	0.074	--	<0.00010	--	<0.7
W-308	Supplementary	Alluvial	CH-CCR-W308-41619	4/16/2019	--	--	0.00083	--	0.0067	--	--	<0.00010	--	<0.0010	--	<0.00050	--	<0.80	<0.00050	--	0.35	--	0.010	--	0.053 J	--	<0.00010	--	--
W-308	Supplementary	Alluvial	CH-APP-W308-62519	6/25/2019	--	--	--	--	--	--	<0.0010	--	--	0.0061	--	--	--	<0.40	--	--	--	--	--	--	--	--	<0.00010	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-8819	8/8/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	--	--	--	--	--	--	--	--	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-102419	10/24/2019	<0.0020	--	<0.0020	--	0.0078	--	<0.0010	<0.00020	--	0.010	--	<0.0020	--	<0.80 UJ	<0.0010	--	0.37	<0.00020	0.0025	--	0.022	--	<0.00020	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-0420	4/17/2020	--	--	<0.0025	0.0025	0.0072	--	<0.0005	<0.0005	--	0.077	--	<0.0025	<0.0025	<0.8	<0.0025	--	0.46 J	--	0.0052	--	0.020	--	<0.0005	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-1020	10/24/2020	<0.002	--	0.0024	0.0015 J	0.0084	--	<0.001	0.000074 J	--	0.028	--	0.0027	0.080	0.48 J	<0.001	--	0.42	<0.0002	0.0031	--	0.012	--	0.000028 J	--	<0.8
W-308	Supplementary	Alluvial	CH-CCR-W308-0421	4/18/2021	0.00010 J	--	0.0018 J	0.0013	0.0081	--	<0.001	<0.0002	--	0.011	--	0.00077 J	0.00080 J	0.46 J	<0.001	--	0.42	<0.0002	0.0025	--	0.008	--	<0.0002	--	<0.7
W-308	Supplementary	Alluvial	CH-CCR-W308-1021	10/28/2021	<0.001	--	<0.0013	0.0019	0.0077	--	<0.001	0.00004 J	--	0.0086	--	0.0021	0.0021	0.54 J	<0.0005	--	0.41	<0.0002	0.0025	--	0.0026	--	0.00013	--	1.3
W-308	Supplementary	Alluvial	CH-CCR-W308-0522	5/12/2022	<0.001	--	0.0015	0.0011	0.0073	--	<0.001	0.000057 J	--	0.015	--	0.00094	0.00086	0.40 J	<0.0005	--	0.41 / 0.34	<0.0002	0.0036	--	0.0043	--	<0.0001	--	<0.6
W-308	Supplementary	Alluvial	CH-CCR-W308-1022	10/26/2022	<0.001	--	0.00070	0.00054	0.0075	--	<0.001	<0.0001	--	0.0086	--	0.00096	0.0008	<0.8	<0.0005	--	0.43	<0.0002	0.0020	--	0.0034	--	<0.0001	--	<0.6
W-308	Supplementary	Alluvial	CH-CCR-W308-0423	04/20/2023	0.0008 J	--	<0.005	<0.005	0.012	--	<0.001	<0.001	--	0.012	--	<0.005	0.0013 J	<4	<0.005	--	0.43	<0.0002	0.003 J	--	<0.005	--	0.00013 J	--	<0.6
W-308	Supplementary	Alluvial	CH-CCR-W308-1023	10/12/2023	<0.001	--	0.00089	0.00078	0.0075	--	<0.001	<0.0001	--	0.0092	--	0.0016	0.0014	0.54	<0.0005	--	0.42	<0.0002	0.0015	--	0.0025	--	<0.0001	--	<0.7
W-308	Supplementary	Alluvial	CH-CCR-W308-0424	04/22/2024	<0.001	--	0.0023	0.0023	0.0076	--	0.0055	<0.0001	--	0.0071	--	0.00062	0.00053	<0.4	<0.0005	--	0.48	<0.0002	0.0030	--	0.0056	--	<0.0001	--	1.2
W-308	Supplementary	Alluvial	CH-CCR-W308-1024	10/22/2024	<0.0005	--	0.0009	<0.0025	0.0073	--	<0.0026	<0.00008	--	0.0117	--	0.0018	<0.0025	<0.761	<0.0005	--	0.357 J	<0.0002 UJ	0.0023	--	0.0011	--	<0.000026	--	<0.8
W-309	Supplementary	Alluvial	CH-CCR-W309-12818	12/8/2018	<0.0050	--	0.0044	--	0.011	--	--	<0.0010	--	<0.0050	--	<0.0020	--	1.0 J,UJ	<0.0010	--	<0.20	<0.00020	0.024	--	<0.0060	--	<0.0010	--	<0.7
W-309	Supplementary	Alluvial	CH-CCR-W309-21519	2/15/2019	<0.0010	--	0.0047	--	0.0083	--	<0.0010	<0.00010	--	<0.0010	--	<0.00050	--	1.1	<0.00050	--	0.35	<0.00020	0.028	--	0.19	--	<0.00010	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-41619	4/16/2019	--	--	0.0051	--	0.0062	--	--	<0.00010	--	<0.0010	--	<0.00050	--	1.0	<0.00050	--	0.30	--	0.061	--	0.22 J	--	<0.00010	--	--
W-309	Supplementary	Alluvial	CH-APP-W309-62519	6/25/2019	--	--	--	--	--	--	<0.0010	--	--	0.0033	--	--	--	1.2	--	--	--	--	--	--	--	--	<0.00010	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-8819	8/8/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1	--	--	--	--	--	--	--	--	--	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-102419	10/24/2019	<0.0020	--	0.0066	--	0.0079	--	<0.0010	<0.00020	--	0.0020	--	<0.0010	--	1.1 J	<0.0010	--	0.31	<0.00020	0.011	--	0.18	--	<0.00020	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-0520	5/4/2020	<0.001	--	0.0047	0.0038	0.0070	--	<0.001	<0.0001	--	0.0052	--	<0.0005	<0.0005	1.2	0.023	--	0.50	--	0.010	--	0.20	--	<0.0001	--	<0.8
W-309	Supplementary	Alluvial	CH-CCR-W309-1020	10/24/2020	<0.002	--	0.0089	0.0093	0.0071	--	<0.001	0.000066 J	--	0.11	--	0.0006 J	0.00038 J	1.1	<0.001	--	0.33	<0.0002	0.017	--	0.21	--	0.000052 J	--	<0.8
W-309	Supplementary	Alluvial	CH-CCR-W309-0421	4/18/2021	0.000092 J	--	0.0015 J	0.00083 J	0.0076	--	<0.001	<0.0002	--	0.042	--	<0.001	<0.001	1.0	<0.001	--	0.36	<0.0002	0.010	--	0.20	--	<0.0002	--	<0.7
W-309	Supplementary	Alluvial	CH-CCR-W309-1021	10/27/2021	<0.001	--	<0.0013	0.0020	0.0067	--	<0.001	0.000059 J	--	0.015	--	<0.0005	0.0002 J	1.3	<0.0005	--	0.33	<0.0002	0.0083	--	0.20	--	0.000094 J	--	0.4
W-309	Supplementary	Alluvial	CH-CCR-W309-0522	5/12/2022	<0.001	--	0.0011	0.00095	0.0069	--	<0.001	0.000071 J	--	0.020	--	0.00040 J	0.00031 J	1.3	<0.0005	--	0.34 / 0.27	<0.0002	0.0093	--	0.22	--	0.000037 J	--	0.7
W-309	Supplementary	Alluvial	CH-CCR-W309-0423	04/20/2023	<0.01	--	<0.005	<0.005	0.0071	--	<0.001	<0.001	--	0.011	--	<0.005	<0.005	<4	<0.005	--	0.37	<0.0002	0.0084	--	0.15	--	<0.001	--	<0.6
W-309	Supplementary	Alluvial	CH-CCR-W309-1023	10/12/2023	<0.001	--	0.0011	0.00099	0.007	--	<0.001	<0.0001	--	0.016	--	<0.0005	<0.0005	1.1	<0.0005	--	0.35	<0.0002	0.0088	--	0.16	--	<0.0001	--	<0.7
W-309	Supplementary	Alluvial	CH-CCR-W309-0424	04/22/2024	<0.001	--	0.0018	0.0018	0.007	--	<0.1	<0.0001	--	0.0066	--	<0.0005	<0.0005	1.0	<0.0005	--	0.39	<0.0002	0.0081	--	0.23	--	<0.0001	--	<0.9
W-309	Supplementary	Alluvial	CH-CCR-W309-1224	12/13/2024	<0.005	--	<0.001	<0.001	0.00709	--	<0.002	<0.001	--	<0.02	--	<0.002	<0.002	1.1	<0.002	--	0.349	<0.0002	0.00665	--	0.163	--	<0.000195	--	1.7
W-317	Supplementary	Alluvial	CH-CCR-W317-33019	3/30/2019	<0.0010	--	0.0036	--	0.039	--	<0.0010	<0.00010	--	0.0035	--	0.00085	--	<0.40	<0.00050	--	<0.20	<0.00020	0.064	--	<0.00050	--	<0.00010	--	--
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD03-41719	4/17/2019	--	--	0.0039	--	0.033	--	--	<0.00010	--	<0.0010	--	<0.00050	--	<0.80	<0.00050	--	<0.20	--	0.0028	--	<0.00050	--	<0.00010	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-41719	4/17/2019	--	--	0.0035	--	0.032	--	--	<0.00010	--	<0.0010	--	<0.00050	--	<0.80	<0.00050	--	<0.20	--	0.0028	--	<0.00050	--	<0.00010	--	--
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD01-8819	8/8/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0	--	--	--	--	--	--	--	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-8919	8/9/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	--	--	--	--	--	--	--	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-102419	10/24/2019	<0.0010	--	0.0043	--	0.036	--	<0.0010	<0.00010	--	0.0012	--	<0.00050	--	<0.40 UJ	<0.00050	--	<0.20	<0.00020	0.0046	--	<0.00050	--	<0.00010	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-0420	4/16/2020	--	--	0.0038	--	0.031	--	<0.0005	<0.0005	--	<0.005	--	<0.0025	--	<0.8	<0.0005	--	0.042 J	--	0.0037	--	<0.0025	--	<0.0001	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-1020	10/21/2020	<0.004	--	0.0046	--	0.036	--	0.0001 J	<0.0004	--	0.0079	--	0.00073 J	--	0.36 J	<0.002	--	0.064	<0.0002	0.0041	--	0.0028	--	<0.0004	--	<0.8
W-317	Supplementary	Alluvial	CH-CCR-W317-0421	4/14/2021	<0.002	--	0.0079	--	0.034	--	<0.001	<0.0002	--	0.0055	--	<0.001	--	0.35 J	<0.001	--	0.060	<0.0002	0.0030	--	0.00096 J	--	<0.0002	--	<0.7
W-317	Supplementary	Alluvial	CH-CCR-W317-1021	10/21/2021	<0.001	--	0.0052	--	0.031	--	<0.001	0.000039 J	--	0.0046	--	<0.0005	--	0.34 J	<0.0005	--	0.058	<0.0002	0.0025	--	0.00063	--	0.0004	--	0.4
W-317	Supplementary	Alluvial	CH-CCR-W317-0422	4/26/2022	<0.001	--	0.0047	--	0.030	--	<0.001	<0.0001	--	0.0037	--	<0.0005	--	0.35 J	<0.0005	--	0.064	<0.0002	0.0022	--	<0.0005	--	<0.0001	--	1.1
W-317	Supplementary	Alluvial	CH-CCR-W317-1022	10/19/2022	<0.001	--	0.0044	--	0.032	--	<0.001	<0.0001	--	0.0029 J	--	<0.0005	--	<0.8	<0.0005	--	0.065	<0.0002	0.0018	--	<0.0005	--	<0.0001	--	0.6
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1022	10/19/2022	<0.001	--	0.0042	--	0.033	--	<0.001	<0.0001	--	0.0055 J	--	<0.0005	--	--	<0.0005	--	0.063	<0.0002	0.0020	--	<0.0005	--	<0.0001	--	0.4
W-317	Supplementary	Alluvial	CH-CCR-W317-1022-SD	10/19/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9
W-317	Supplementary	Alluvial	CH-CCR-W317-0423	04/14/2023	<0.01	--	0.0032 J	--	0.035	--	<0.001	<0.001	--	<0.01	--	<0.005	--	<2	<0.005	--	0.073	<0.0002	<0.005	--	<0.005	--	0.00031 J	--	1.2
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-0423	04/14/2023	<0.01	--	<0.005	--	0.035	--	<0.001	<0.001	--	<0.01	--	<0.005	--	<2	<0.005	--	0.075	<0.0002	<0.005	--	<0.005	--	<0.001	--	<0.6
W-317	Supplementary	Alluvial	CH-CCR-W317-1023	10/11/2023	<0.001	--	0.0046	--	0.032	--	<0.001	<0.0001	--	<0.001	--	<0.0005	--	<0.4	<0.0005	--	0.056	<0.0002	0.0016	--	<0.0005	--	<0.0001	--	1.1
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1023	10/11/2023	<0.001	--	0.0043	--	0.033	--	<0.001	<0.0001	--	<0.001	--	<0.0005	--	<0.4	<0.0005	--	0.055	<0.0002	0.0016	--	<0.0005	--	<0.0001	--	0.5
W-317	Supplementary	Alluvial	CH-CCR-W317-0424	04/17/2024	<0.001	--	0.0055	--	0.036 J	--	<0.001	<0.0001	--	0.0033	--	<0.0005	--	<0.4	<0.0005	--	0.050	<0.0002	0.0019	--	0.00075	--	<0.0001	--	<0.8
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-0424	04/17/2024	<0.001	--	0.0054	--	0.034 J	--	<0.001	<0.0001	--	0.0024	--	<0.0005	--	<0.4	<0.0005	--	0.057	<0.0002	0.0018	--	0.00080	--	<0.0001	--	<0.8
W-317	Supplementary	Alluvial	CH-CCR-W317-1024	10/17/2024	<0.0025	--	0.0044	--	0.0324	--	<0.00044	<0.0004	--	<0.01	--	<0.0025	--	<0.38	<0.0025	--	0.052	<0.0002	<0.0025	--	<0.0025	--	<0.00013	--	1.4
W-317	Supplementary	Alluvial	CH-CCR-FD04-1024	10/17/2024	<0.0025	--	0.0042	--	0.0344	--	<0.00044	<0.0004	--	<0.01	--	<0.0025	--	0.393	<0.0025	--	0.060	<0.0002	0.0209 J	--	<0.0025	--	<0.00013	--	1.0
BAP	Supplementary	Surface Pond	CH-BAP-01052012	1/5/2012	--	--	--	--	--	--	--	<0.0010	--	--	--	--	--	<4.0	<0.015	--	--	--	--	--	--	--	<0.0010	--	--
BAP	Supplementary	Surface Pond	CH-BAP-11072012	11/7/2012	--	--	--	--	--	--	--	<0.0010	--	--	--	--	--	5.9	<0.015	--	--	--	--	--	--	--	<0.0020	--	--
BAP	Supplementary	Surface Pond	CH-BAP-1172012	11/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	4.8	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-031313	3/13/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-031313_C26660-1	3/13/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	3.5	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0913	9/18/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0913_C29829-10	9/18/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	3.9	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0514	5/22/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0514_C34218-6	5/22/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	4.1	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-1014	10/13/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0515	5/4/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	3.8	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-APP-BP-1016	10/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	5.8	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-APP-BAP-60717	6/7/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	4.6	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-APP-BAP-10617	10/6/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	4.1	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-CCR-BAP-33019	3/30/2019	0.0027	--	0.017	--	0.20 J	--	<0.0010	0.00011	--	0.0035	--	0.00099	--	3.7	<0.00050	--	<0.20	<0.00020	0.027	--	0.014	--	<0.00010	--	--
BAP	Supplementary	Surface Pond	CH-APP-BAP-42919	4/29/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	3.7	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0421	4/16/2021	0.0030	--	0.016	--	0.27	--	<0.001	<0.0002	--	0.0020	--	0.00061 J	0.00086 J	3.3	<0.001	--	0.17	<0.0002	0.034	--	0.017	--	<0.0002	--	<0.7
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1021	10/31/2021	0.0023	--	0.026	0.022	0.29	--	<0.001	0.000069 J	--	0.0037	0.0037	0.0014	0.00091	3.9	0.0010	--	0.17	<0.0002	0.035	--	0.0072	--	0.000073 J	--	--
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0422	4/21/2022	0.00015 J	--	0.011	0.022	0.012	--	<0.001	<0.0001	--	0.011	--	0.0030	0.00059	3.5	0.0018	--	0.16	<0.0002	0.036	--	<0.0005	--	<0.0001	--	--
BAP	Supplementary	Surface Pond	CH-CCR-SS07-0422	4/21/2022	0.00202 J	--	0.0233	0.0171	0.275	--	<0.00125	<0.00125	--	<0.01	--	0.00309	0.00191	3.21 / 2.72 J	<0.0025	--	0.213	--	0.0335	--	0.0297	--	<0.0025	--	--
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1022	10/26/2022	0.0019	--	0.021	0.019	0.33	--	<0.001	<0.0001	--	0.0016	0.0016	0.00085	<0.0005	3.0	0.00082	--	0.18	<0.0002	0.027	--	0.0045	--	<0.0001	--	--
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0423	04/26/2023	<0.01	--	0.016	0.015	0.17	--	<0.001	<0.002	--	0.0012 J	0.0012 J	0.00062 J	<0.002	<4	<0.002	--	0.19	--	0.026	--	<0.01	--	<0.002	--	--
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1023	10/13/2023	0.0025	--	0.021	0.011	0.55	--	<0.001	0.00029	--	0.015	0.015	0.0044	<0.0005	4.3	0.0095	--	0.20	--	0.029	--	0.0095	--	0.00014	--	--
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0424	05/01/2024	<0.02	--	0.018	0.016	0.066	--	<0.001	<0.002	--	<0.02	<0.02	<0.01	<0.01	2.6	<0.01	--	0.20	--	0.023	--	<0.01	--	<0.002	--	--

Table C-5
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																													
				Constituent:	Antimony	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Molybdenum	Molybdenum	Selenium	Selenium	Thallium	Thallium	Total Radium
				Filtered:	N	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	Y	N	Y	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAP GWPS	*0.006*	*0.006*	*0.01*	*0.01*	*2*	*2*	*0.004*	*0.005*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.015*	*0.418*	*0.002*	*0.1*	*0.1*	*0.05*	*0.05*	*0.002*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																														
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1024	11/14/2024	<0.0025	--	0.0068	0.0064	0.0817	--	<0.00044	<0.0004	--	<0.01	--	<0.0025	<0.0025	1.65	<0.0025	--	0.15	--	0.0212	--	0.0044	--	<0.00013	--	--
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0421	4/17/2021	<0.002	--	0.0027	--	0.012	--	<0.001	<0.0002	--	**0.0017 J**	--	0.0095	0.0096	3.1	**0.019 J**	--	0.23	<0.0002	0.025	--	0.0015	--	<0.0002	--	<0.7
BAP Toe Drain	Supplementary	Seepage	*DUP* CH-CCR-FD04-0421	4/17/2021	<0.002	--	0.0020	--	0.011	--	<0.001	<0.0002	--	**0.00098 J**	--	0.0093	0.0090	3.1	**0.0078 J**	--	0.25	<0.0002	0.025	--	0.0011	--	<0.0002	--	<0.7
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1021	10/30/2021	<0.002	--	<0.0016	0.0021	0.011	--	<0.001	0.00064	--	**0.00099 J**	--	0.010	0.0096	3.3	**0.0008 J**	--	0.23	<0.0002	0.031	--	0.0015	--	<0.0002	--	--
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0422	4/21/2022	**0.000047 J**	--	0.0022	0.0019	0.0094	--	<0.001	0.00047	--	0.0013	--	0.0097	0.0096	2.7	0.0018	--	0.24	<0.0002	0.018	--	0.0013	--	<0.0001	--	--
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1022	10/27/2022	<0.001	--	0.00099	0.00064	0.0095	--	<0.001	0.00064	--	<0.001	--	0.0073	0.0075	2.8	0.0024	--	0.25	<0.0002	0.022	--	0.00095	--	<0.0001	--	--
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0423	04/26/2023	<0.01	--	<0.002	<0.002	0.0094	--	<0.001	<0.002	--	<0.01	--	0.0063	0.0064	<4	0.0027	--	0.28	--	0.016	--	<0.01	--	<0.002	--	--
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1023	10/24/2023	<0.001	--	0.00079	0.0007	0.0023	--	<0.001	0.00052	--	<0.001	--	0.0013	0.0013	2.5	0.00077	--	0.23	<0.0002	0.0044	--	0.0013	--	<0.0001	--	--
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0424	05/28/2024	0.00055 J	--	0.0059	--	0.011	--	<0.001	0.00089 J	--	<0.01	--	0.0091	--	1.9	<0.005	--	0.23	--	0.038	--	<0.005	--	<0.001	--	--
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1024	11/14/2024	<0.0025	--	<0.0025	<0.0025	0.0088	--	<0.00044	<0.004	--	<0.01	--	0.0072	0.0077	1.25	<0.0025	--	0.182	--	0.0323	--	<0.0025	--	<0.00013	--	--
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0421	4/16/2021	**0.00013 J**	--	0.0041	--	0.0090	--	<0.001	<0.0002	--	0.0022	--	0.019	0.018	3.6	<0.001	--	0.20	<0.0002	0.034	--	0.0014	--	<0.0002	--	<0.4
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-1021	10/30/2021	**0.00052 J**	--	0.0026	0.0035	0.0058	--	<0.001	**0.00018 J**	--	0.0033	--	0.019	0.017	3.6	<0.001	--	0.19	<0.0002	0.028	--	0.0016	--	**0.000056 J**	--	--
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0422	4/21/2022	<0.001	--	0.0032	0.0032	0.0056	--	<0.001	0.00016	--	**0.00068 J**	--	0.017	0.018	3.4	<0.0005	--	0.20	<0.0002	0.023	--	0.00093	--	<0.0001	--	--
Petroglyph	Supplementary	Seepage	CH-CCR-SS08-0422	4/21/2022	<0.01	--	**0.00197 J**	**0.00163 J**	**0.00699 J**	--	<0.00125	<0.00125	--	<0.01	--	0.0225	0.018	**3.21 / 3.14 J**	<0.0025	--	**0.165 J**	--	0.0274	--	<0.00125	--	<0.0025	--	--
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-1022	10/27/2022	<0.001	--	0.0029	0.0027	0.0048	--	<0.001	0.00027	--	<0.001	--	0.014	0.014	3.2	<0.0005	--	0.20	<0.0002	0.026	--	0.00096	--	0.00016	--	--
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0423	04/26/2023	<0.01	--	0.0023	**0.0017 J**	0.0059	--	<0.001	<0.002	--	<0.01	--	0.014	0.013	<4	<0.002	--	0.23	--	0.020	--	<0.01	--	<0.002	--	--
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-1023	10/24/2023	<0.001	--	0.00086	0.00064	0.0053	--	<0.001	<0.0001	--	<0.001	--	0.0025	<0.0005	2.9	<0.0005	--	0.21	<0.0002	0.0094	--	<0.0005	--	<0.0001	--	--
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0424	05/01/2024	<0.02	--	0.016	0.014	0.027	--	<0.001	<0.002	--	<0.02	--	0.015	0.015	2.7	<0.01	--	0.23	--	0.034	--	<0.01	--	<0.002	--	--
Petroglyph	Supplementary	Seepage	CH-CCR-PETRO-1024	11/13/2024	<0.0025	--	<0.0025	<0.0025	0.0105	--	<0.00044	<0.0004	--	<0.01	--	0.0109	0.0127	2.24	<0.0025	--	0.155	--	0.0259	--	<0.0025	--	<0.00013	--	--
Tanner Wash Seep	Supplementary	Seepage	CH-TANNERS-0520	5/8/2020	--	--	0.0015	--	0.058	--	<0.001	0.00033	--	0.0021	--	0.020	--	3.8	0.0070	--	0.33	--	0.036	--	0.00054	--	--	--	--
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TanWash-0421	4/16/2021	**0.00014 J**	--	0.0021	--	0.034	--	<0.001	<0.0002	--	**0.0015 J**	--	0.012	0.011	4.0	0.026	--	0.23	<0.0002	0.090	--	0.0018	--	<0.0002	--	<0.8
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TanWash-1021	10/30/2021	<0.002	--	0.0025	0.0019	0.0073	--	<0.001	0.00036	--	0.015	--	0.016	0.014	3.6	0.0054	--	0.20	<0.0002	0.067	--	0.0012	--	**0.00003 J**	--	--
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-0422	4/21/2022	**0.000051 J**	--	0.0029	0.0021	0.0059	--	<0.001	0.00021	--	0.0024	--	0.015	0.014	3.6	0.00052	--	0.23	<0.0002	0.042	--	0.00098	--	<0.0001	--	--
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-1022	10/27/2022	<0.001	--	0.0050	0.00080	0.0095	--	<0.001	0.00053	--	0.0080	--	0.014	0.012	3.6	0.013	--	0.21	<0.0002	0.11	--	0.0012	--	<0.0001	--	--
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-0423	04/26/2023	<0.01	--	0.0039	<0.002	0.013	--	<0.001	<0.002	--	**0.0056 J**	--	0.014	0.013	<8	<0.002	--	0.23	--	0.019	--	<0.01	--	<0.002	--	--
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-1023	10/24/2023	<0.001	--	0.0012	0.00075	0.0020	--	<0.001	<0.0001	--	<0.001	--	0.0024	0.0024	32	<0.0005	--	0.20	<0.0002	0.0037	--	<0.0005	--	<0.0001	--	--
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-0424	05/01/2024	<0.02	--	0.015	0.016	0.0140	--	<0.001	<0.002	--	<0.02	--	0.014	0.014	3.1	<0.01	--	0.24	--	0.034	--	<0.01	--	<0.002	--	--
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TANNER-1024	11/13/2024	<0.0025	--	<0.0025	<0.0025	0.0093	--	<0.00044	<0.004	--	<0.01	--	0.010	0.0105	3.22	<0.0025	--	0.17	--	0.0199	--	<0.0025	--	<0.00013	--	--
TWX-03	Supplementary	Seepage	CH-CCR-P226A-0621	6/1/2021	<0.00024	--	0.0014	--	0.0095	--	<0.001	0.00035	--	0.0057	--	0.014	0.014	3.3	0.0052	--	0.21	<0.0002	0.036	--	0.002	--	<0.000083	--	<0.8
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-1021	10/31/2021	<0.002	--	0.0017	0.024	0.0090	--	<0.001	0.00052	--	0.011	--	0.017	0.015	2.8	0.050	--	0.20	<0.0002	0.049	--	0.0027	--	**0.000092 J**	--	--
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-0522	05/03/2022	**0.00011 J**	--	0.001	0.00058	0.011	--	<0.001	0.00031	--	0.0052	--	0.014	0.014	3.1	0.00072	--	0.21	--	0.031	--	0.0013	--	**0.000083 J**	--	--
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-1022	10/27/2022	<0.001	--	0.00085	0.00069	0.013	--	<0.001	0.00019	--	0.011	--	0.013	0.013	3.0	0.0011	--	0.20	<0.0002	0.038	--	0.0016	--	<0.0001	--	--
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-0423	04/26/2023	<0.01	--	**0.0014 J**	**0.0012 J**	0.0094	--	<0.001	<0.002	--	0.012	--	0.014	0.014	<8	**0.0017 J**	--	0.23	--	0.037	--	<0.01	--	<0.002	--	--
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-1023	10/24/2023	<0.001	--	0.00087	0.00078	0.0020	--	<0.001	<0.0001	--	0.0038	--	0.0025	0.0025	2.8	<0.0005	--	0.22	<0.0002	0.007	--	<0.0005	--	<0.0001	--	--
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-0424	05/28/2024	0.00079 J	--	0.0063	--	0.0630	--	<0.001	0.00049 J	--	0.0090 J	--	0.011	--	2.7	0.0092	--	0.23	--	0.034	--	<0.005	--	<0.001	--	--
TWX-03	Supplementary	Seepage	CH-CCR-TWX10-1024	11/13/2024	<0.0025	--	<0.0025	<0.0025	0.0085	--	<0.00044	<0.004	--	0.0338	--	0.0136	0.0142	1.68	<0.0025	--	0.175	--	0.0421	--	<0.0025	--	<0.00013	--	--
TWX-04	Supplementary	Seepage	CH-CCR-P226B-0621	6/1/2021	<0.00013	--	0.0014	--	0.0083	--	<0.001	0.00038	--	**0.00091 J**	--	0.013	0.014	3.0	0.0047	--	0.20	<0.0002	0.036	--	0.0031	--	<0.000081	--	<0.8
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-1021	10/31/2021	**0.00038 J**	--	0.0023	0.0022	0.0095	--	<0.001	0.00031	--	0.51	--	0.017	0.0095	3.1	0.0020	--	0.21	<0.0002	0.11	--	0.0044	--	0.00044	--	--
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-0522	05/03/2022	**0.00024 J**	--	0.0012	0.00062	0.006	--	<0.001	0.00042	--	0.077	--	0.016	0.013	3.1	0.0010	--	0.21	--	0.049	--	0.0022	--	0.00025	--	--
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-1022	10/27/2022	<0.001	--	0.00064	0.00075	0.0069	--	<0.001	<0.0001	--	0.017	--	0.012	0.011	3.0	0.0011	--	0.21	<0.0002	0.051	--	0.0015	--	<0.0001	--	--
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-0424	05/01/2024	<0.02	--	<0.01	0.011	<0.01	--	<0.001	<0.002	--	<0.02	--	0.015	0.014	2.7	<0.01	--	0.24	--	0.054	--	<0.01	--	<0.002	--	--
TWX-04	Supplementary	Seepage	CH-CCR-TWX3-1024	11/13/2024	<0.0025	--	0.0037	<0.0025	0.0084	--	<0.00044	0.0004	--	0.0422	--	0.0143	0.0156	1.79	<0.0025	--	0.179	--	0.0428	--	<0.0025	--	<0.00013	--	--
TWX-05	Supplementary	Seepage	CH-CCR-P226C-0621	6/1/2021	<0.00023	--	0.0016	--	0.0088	--	<0.001	0.00032	--	**0.0008 J**	--	0.013	0.013	2.7	0.0069	--	0.22	<0.0002	0.040	--	0.0057	--	<0.000068	--	<0.8
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-1021	10/31/2021	<0.002	--	0.0037	0.0023	0.012	--	<0.001	0.00044	--	0.026	--	0.016	0.014	3.1	0.0040	--	0.20	<0.0002	0.042	--	0.0023	--	**0.0001 J**	--	--
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-0522	05/03/2022	**0.00011 J**	--	0.0024	0.0010	0.010	--	<0.001	0.00057	--	0.013	--	0.016	0.016	3.1	0.0019	--	0.2	--	0.037	--	0.0022	--	0.00011	--	--
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-1022	10/27/2022	<0.001	--	0.0019	0.0012	0.0099	--	<0.001	0.00083	--	0.036	--	0.017	0.017	2.9	0.0020	--	0.19	<0.0002	0.039	--	0.0032	--	0.00044	--	--
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-0423	04/26/2023	<0.01	--	**0.0013 J**	**0.00096 J**	0.011	--	<0.001	<0.002	--	**0.0057 J**	--	0.014	0.013	<8	0.0042	--	0.22	--	0.034	--	<0.01	--	<0.002	--	--
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-1023	10/24/2023	<0.005	--	0.0053	0.0038	0.010	--	<0.001	<0.0005	--	0.022	--	0.014	0.013	2.8	0.0027	--	0.21	<0.0002	0.039	--	<0.0025	--	<0.0005	--	--
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-0424	05/01/2024	<0.001	--	0.0031	0.0034	0.0067	--	<0.001	0.00024	--	0.0075	--	0.012	0.012	2.9	0.018	--	0.23	--	0.052	--	<0.01	--	0.00013	--	--
TWX-05	Supplementary	Seepage	CH-CCR-TWX4-1024	11/13/2024	<0.0025	--	<0.0025	<0.0025	0.0088	--	<0.00044	0.00072	--	0.324	--	0.0256	0.0152	1.44	<0.0025	--	0.192	--	0.104	--	<0.0025	--	<0.00013	--	--
TWX-06	Supplementary	Seepage	CH-CCR-P226D-0621	6/1/2021	<0.00012	--	0.0034	--	0.0087	--	<0.001	0.00064	--	0.012	--	0.019	0.018	2.7	0.014	--	0.20	<0.0002	0.062	--	0.00061	--	<0.000041	--	<0.8
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-1021	10/31/2021	**0.00048 J**	--	0.0042	0.0033	0.0087	--	<0.001	0.00065	--	0.037	--	0.018	0.016	3.0	**0.0009 J**	--	0.20	<0.0002	0.063	--	**0.0015 J**	--	<0.0004	--	--
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-0522	05/03/2022	**0.000083 J**	--	0.0034	0.0022	0.0089	--	<0.001	0.00067	--	0.012	--	0.016	0.017	2.9	0.0013	--	0.21	--	0.052	--	0.00093	--	**0.000041 J**	--	--
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-1022	10/27/2022	<0.001	--	0.0029	0.0023	0.011	--	<0.001	0.00074	--	0.015	--	0.017	0.017	2.5	0.0021	--	0.20	<0.0002	0.052	--	0.0012	--	<0.0001	--	--
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-0423	04/26/2023	<0.01	--	0.0020	0.0021	0.0090	--	<0.001	**0.0017 J**	--	<0.01	--	0.018	0.017	<8	0.0020	--	0.23	--	0.050	--	<0.01	--	<0.002	--	--
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-1023	11/21/2023	<0.001	--	0.0083	0.0059	0.0160	--	<0.001	0.00074	--	0.025	--	0.027	0.026	2.6	0.0030	--	0.20	--	0.066	--	<0.01	--	<0.0001	--	--
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-0424	05/01/2024	<0.001	--	0.0056	0.0043	0.012	--	<0.001	0.00045	--	0.032	--	0.016	0.015	2.4	0.0180	--	0.25	--	0.045	--	<0.01	--	<0.0001	--	--
TWX-06	Supplementary	Seepage	CH-CCR-TWX5-1024	11/13/2024	<0.0025	--	0.0025	<0.0025	0.0082	--	<0.00044	<0.004	--	0.0129	--	0.0129	0.0135	1.69	<0.0025	--	0.17	--	0.0412	--	<0.0025	--	0.00014 J	--	--
TWX-07	Supplementary	Seepage	CH-CCR-P226E-0621	6/1/2021	**0.00035 J**	--	0.0034	--	0.011	--	<0.001	0.0091	--	0.68	--	0.0093 J	0.015 J	1.9	0.0065	--	0.45	<0.0002	0.23	--	0.0012	--	0.00021	--	<0.8
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-1021	10/31/2021	<0.002	--	0.0072	0.0032	0.020	--	<0.001	0.0024	--	0.99	--	0.013	0.0039	2.5	0.0053	--	0.26	<0.0002	0.20	--	**0.0018 J**	--	**0.0001 J**	--	--
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-0522	05/03/2022	**0.00016 J**	--	0.0018	0.00078	0.0097	--	<0.001	0.00073	--	0.015	--	0.018	0.018	2.9	0.0012	--	0.21	--	0.043	--	0.0015	--	**0.000045 J**	--	--
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-1022	10/27/2022	<0.001	--	0.0019	0.00081	0.0094	--	<0.001	0.00050	--	0.18	--	0.016	0.016	2.4	0.0020	--	0.21	<0.0002	0.045	--	0.0013	--	<0.0001	--	--
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-0423	04/26/2023	<0.01	--	0.0020	**0.0012 J**	0.0076	--	<0.001	**0.00055 J**	--	0.045	--	0.017	0.016	<8	0.0029	--	0.22	--	0.041	--	<0.01	--	<0.002	--	--
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-1023	10/24/2023	<0.005	--	0.0043	0.0040	0.0042	--	<0.001	<0.0005	--	0.022	--	0.013	0.013	2.7	<0.0025	--	0.21	<0.0002	0.042	--	<0.0025	--	<0.0005	--	--
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-0424	05/01/2024	<0.001	--	0.0071	0.0030	0.0031	--	<0.001	0.00061	--	0.35	--	0.017	0.0083	2.1	0.055	--	0.20	--	0.050	--	<0.01	--	<0.0001	--	--
TWX-07	Supplementary	Seepage	CH-CCR-TWX6-1024	11/13/2024	<0.0025	--	<0.0025	<0.0025	0.0069	--	<0.00044	<0.004	--	0.0588	--	0.0145	0.0141	2.4	<0.0025	--	0.19	--	0.043	--	<0.0025	--	<0.00013	--	--
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-1021	10/31/2021	<0.002	--	**0.0017 J**	<0.0018	0.0069	--	<0.001	0.00065	--	0.0096	--	0.019	0.017	2.2	<0.001	--	0.22	<0.0002	0.045	--	0.0023	--	<0.0004	--	--
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-0522	05/03/2022	**0.000074 J**	--	0.0015	0.00097	0.0089	--	<0.001	0.00072	--	0.0064	--	0.015	0.016	2.2	0.00081	--	0.22	--	0.056	--	0.0013	--	**0.000036 J**	--	--
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-1022	10/27/2022	<0.001	--	0.0010	0.00096	0.0096	--	<0.001	0.00065	--	0.025	--	0.016	0.016	2.3	0.00070	--	0.23	<0.0002	0.050	--	0.0012	--	<0.0001	--	--
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-0424	05/01/2024	<0.001	--	0.0063	0.0026	0.015	--	<0.001	0.00160	--	0.50	--	0.018	0.020	2.1	0.029	--	0.21	--	0.039	--	<0.01	--	<0.0001	--	--
TWX-08	Supplementary	Seepage	CH-CCR-TWX7-1024	11/13/2024	<0.0025	--	<0.0025	<0.0025	0.0073	--	<0.00044	0.00052	--	<0.01	--	0.0174	0.0159	1.54	<0.0025	--	0.184	--	0.0426	--	<0.0025	--	<0.00013	--	--
TWX-09	Supplementary	Seepage	CH-CCR-P226G-0621	6/1/2021	**0.00074 J**	--	0.0038	--	0.0017	--	<0.001	0.00012	--	0.18	--	0.0031 J	0.015 J	0.76 J	0.0048	--	0.50	<0.0002	0.14	--	0.0022	--	<0.000035	--	<0.8
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-1021	10/31/2021	**0.00092 J**	--	0.0019	0.0020	0.0046	--	<0.001	0.00075	--	1.5	--	0.012	0.0073	2.6	0.0020	--	0.23	<0.0002	0.084	--	0.0033	--	**0.000096 J**	--	--
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-0522	05/03/2022	0.0012	--	0.0042	0.00094	0.006	--	<0.001	0.0011	--	0.64	--	0.013	0.0064	2.3	0.0035	--	0.27	--	0.069	--	0.0034	--	**0.000098 J**	--	--
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-1022	10/27/2022	0.0013	--	0.0038	0.00099	0.0045	--	<0.001	0.00052	--	0.86	--	0.017	0.0075	2.1	0.0030	--	0.26	<0.0002	0.092	--	0.0042	--	0.00019	--	--
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-0423	04/26/2023	<0.01	--	0.0025	**0.0012 J**	**0.0038 J**	--	<0.001	**0.001 J**	--	0.55	--	0.012	0.0063	<20	**0.0016 J**	--	0.29	--	0.11	--	<0.01	--	<0.002	--	--
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-1023	10/24/2023	<0.005	--	0.0083	0.006	<0.0025	--	<0.001	0.00050	--	0.94	--	0.024	0.011	1.3	<0.0025	--	0.33	<0.0002	0.18	--	<0.0025	--	<0.0005	--	--
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-0424	05/01/2024	<0.001	--	<0.01	<0.01	0.011	--	<0.001	0.00038	--	0.10	--	0.014	0.011	1.5	0.0012	--	0.25	--	0.042	--	<0.01	--	<0.0001	--	--
TWX-09	Supplementary	Seepage	CH-CCR-TWX8-1024	11/13/2024	<0.0025	--	<0.0025	<0.0025	0.008	--	<0.00044	<0.004	--	<0.01	--	0.0138	0.0143	1.59	<0.0025	--	0.207	--	0.0403	--	<0.0025	--	<0.00013	--	--
TWX-10	Supplementary	Seepage	CH-CCR-P226H-0621	6/1/2021	<0.00014	--	0.0011	--	0.011	--	<0.001	0.00014	--	0.057	--	0.0074	0.0066	**0.48 J**	0.011	--	0.51	<0.0002	0.022	--	0.0016	--	<0.000017	--	<0.8
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-1021	10/31/2021	**0.00044 J**	--	0.0019	0.0034	0.023	--	<0.001	0.00026	--	0.041	--	0.0039	0.0018	**0.62 J**	0.0027	--	0.62	<0.0002	0.10	--	0.0031	--	<0.0004	--	--
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-0522	05/03/2022	**0.00016 J**	--	0.0011	0.00063	0.012	--	<0.001	0.00039	--	0.019	--	0.008	0.0084	**0.74 J**	0.00099	--	0.50	--	0.014	--	0.0019	--	**0.000035 J**	--	--
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-1022	10/27/2022	<0.001	--	0.00085	0.00069	0.013	--	<0.001	0.00022	--	0.028	--	0.010	0.010	<0.8	0.0018	--	0.51	<0.0002	0.017	--	0.0018	--	<0.0001	--	--
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-0423	04/26/2023	<0.01	--	<0.002	<0.002	0.011	--	<0.001	<0.002	--	0.014	--	0.013	0.012	<8	<0.002	--	0.50	--	0.016	--	<0.01	--	<0.002	--	--

Table C-5
Groundwater Sampling Results for the BAP Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents																									
				Constituent:	Antimony	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Molybdenum	Molybdenum	Selenium	Selenium	Thallium	Thallium	Total Radium
				Filtered:	N	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	Y	N	Y	N	Y	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAP GWPS	*0.006*	*0.006*	*0.01*	*0.01*	*2*	*2*	*0.004*	*0.005*	*0.005*	*0.1*	*0.1*	*0.006*	*0.006*	*4*	*0.015*	*0.015*	*0.418*	*0.002*	*0.1*	*0.1*	*0.05*	*0.05*	*0.002*	*0.002*	*5*
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																										
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-1023	10/24/2023	<0.005	--	**0.0034**	**0.0035**	**0.0097**	--	<0.001	<0.0005	--	**0.015**	--	**0.015**	**0.015**	**0.45**	<0.0025	--	**0.49**	<0.0002	**0.013**	--	<0.0025	--	<0.0005	--	--
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-0424	05/01/2024	<0.02	--	<0.01	<0.01	**0.11**	--	<0.001	<0.002	--	**0.18**	--	**0.025**	**0.016**	<0.4	**0.055**	--	**0.48**	--	**0.021**	--	<0.01	--	<0.002	--	--
TWX-10	Supplementary	Seepage	CH-CCR-TWX9-1024	11/13/2024	<0.0025	--	<0.0025	<0.0025	**0.0113**	--	<0.00044	<0.004	--	0.184	--	**0.024**	**0.0243**	**0.452 J**	<0.0025	--	**0.395**	--	**0.0245**	--	<0.0025	--	<0.00013	--	--

Notes:

GWPS exceedences are shown in red text.

Duplicate sample dates under the same location are either field duplicates or are instances of samples with multiple field/lab sample IDs on the same date.

[1] In previous documents TDX-3 is also known as BSX-01, TDX-4 is also known as BSX-02, and TDX-5 is also known as BSX-03.

Abbreviations and Data Qualifiers:

< = less than

BAP = Bottom Ash Pond

BTV = Background Threshold Value

CCR = Coal Combustion Residual

degrees C = degrees Celsius

GWPS = Groundwater Protection Standard

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

mg/L = milligrams per liter

pCi/L = Picocuries per liter

su = standard units

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table C-6
Groundwater Sampling Results for the BAP Monitoring Wells - Additional Analyses

					Additional Analyses																												
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium	Sodium	Total Organic Carbon
Filtered:					N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
BAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																													
M-64A	Background	Alluvial	CH-CCR-M100-217	2/20/2017	**520**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**220**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**17**	**--**	**0.8**	<0.6	**--**	**3,600**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-217	2/20/2017	**520**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**220**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**17**	**--**	<0.4	<0.6	**--**	**3,600**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-FD02-41217	4/12/2017	**520**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**220**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**14**	**--**	<0.4	**0.8**	**--**	**3,700**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-41217	4/12/2017	**520**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**210**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**14**	**--**	<0.5	<0.6	**--**	**3,800**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-42517	4/25/2017	**530**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**220**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**14**	**--**	**0.8**	**0.8**	**--**	**3,600**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-51817	5/18/2017	**530**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**230**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**14**	**--**	<0.5	**1.3**	**--**	**3,600**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-FD01-52417	5/24/2017	**530**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**220**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**13**	**--**	<0.3	**1.1**	**--**	**3,600**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-52417	5/24/2017	**530**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**220**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**14**	**--**	**0.4**	<0.6	**--**	**3,700**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-63017	6/30/2017	**450**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**210**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**14**	**--**	<0.4	<0.7	**--**	**3,700**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-FD01-72717	7/27/2017	**470**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**220**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**14**	**--**	<0.4	<0.7	**--**	**3,600**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-72717	7/27/2017	**470**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**220**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**15**	**--**	<0.4	<0.7	**--**	**3,700**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-90717	9/7/2017	**460**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**210**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**14**	**--**	<0.5	<0.7	**--**	**3,700**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-120817	12/8/2017	**540**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**210**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**14**	**--**	**--**	**--**	**--**	**3,000**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-21518	2/15/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.261**	**0.704**	**--**	--	--	--
M-64A	Background	Alluvial	CH-CCR-M-64A-51918	5/19/2018	**520**	<6.0	<6.0	**520**	<6.0	--	--	--	--	**200**	--	--	--	--	--	--	--	--	**13**	--	<0.5	<0.7	--	**4,000**	--	--
M-64A	Background	Alluvial	CH-CCR-M-64A-102218	10/22/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
M-64A	Background	Alluvial	*DUP* CH-CCR-FD-01-102218	10/22/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-21319	2/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.6	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-41119	4/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-41619	4/16/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	*DUP* CH-CCR-FD01-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-102419	10/24/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64-0520	5/6/2020	**490**	<6	<6	**490**	<6	**0.73**	**5.0**	**5.5**	**5.0**	**230**	--	**2.2**	**1.9**	--	<0.5	--	--	--	**20**	--	<0.4	<0.8	--	**3,400**	--	**5.1**
M-64A	Background	Alluvial	*DUP* CH-CCR-FD05-0520	5/6/2020	**470**	<6	<6	**470**	<6	**0.75**	**5.5**	**5.5**	**4.8**	**220**	--	**2.3**	**1.9**	--	<0.5	--	--	--	**19**	--	<0.4	<0.8	--	**3,800**	--	**5.5**
M-64A	Background	Alluvial	CH-CCR-M64-1020	10/24/2020	--	--	--	--	--	**0.77**	**4.8**	**5.5**	**5.5**	--	--	**2**	**2.2**	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	**4.5**
M-64A	Background	Alluvial	CH-CCR-M64-0421	4/15/2021	--	--	--	--	--	**0.88**	**4.6 J**	**6.2**	**5.9**	**250**	--	**2.4**	**2.3**	--	<0.25	--	--	--	**18**	--	<0.4	<0.7	--	**3,800**	--	--
M-64A	Background	Alluvial	CH-CCR-M64-1021	10/22/2021	--	--	--	--	--	**0.77**	**4.5 J**	**6.1**	**6.6**	--	--	**2.3**	**2.5**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-0422	4/26/2022	**470**	<6	<6	**470**	<6	**0.93**	**4.9**	**6.9**	**7.1**	**270**	--	**2.5**	**2.6**	--	<0.25	--	--	--	**13**	--	<0.4	**1.0**	--	**3,300**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-1022	10/22/2022	**460**	<6	<6	**460**	<6	**0.93**	**5.3**	**8.7**	**6.5**	**270**	--	**2.4**	**2.4**	--	<0.25	--	--	--	**12**	--	<0.4	<0.6	--	**3,300**	--	--
M-64A	Background	Alluvial	CH-CCR-M64A-0423	04/17/2023	**420**	<6	<6	**420**	<6	**0.86**	**6.0**	**7.2**	**6.0**	**290**	**--**	**2.3**	**2.1**	**--**	<0.1	**--**	**--**	**--**	**15**	**--**	**0.5**	<0.6	**--**	**3,800**	**--**	--
M-64A	Background	Alluvial	CH-CCR-M64A-1023	10/11/2023	**430**	<6	<6	**430**	<6	**0.90**	**5.2 J**	**6.3**	**6.5**	**260**	**--**	**2.2**	**2.2**	**--**	<0.1	**--**	**--**	**--**	**14**	**--**	**0.7**	<0.72	**--**	**2,900**	**--**	--
M-64A	Background	Alluvial	CH-CCR-M64A-0424	04/18/2024	**430**	<6	<6	**430**	<6	**0.96**	**4.5**	**7.3**	**6.3**	**280**	**--**	**2.3**	**2.2**	**--**	<0.1	**--**	**--**	**--**	**17**	**--**	<0.4	<0.75	**--**	**3,300**	**--**	**--**
M-64A	Background	Alluvial	CH-CCR-M64A-0524	05/28/2024	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-64A	Background	Alluvial	CH-CCR-MW64A-1024	10/30/2024	**458**	--	--	--	--	<0.0539	**6.63**	**6.43**	**5.98**	**288**	--	**2.3**	**2.3**	--	<0.2	--	--	--	**20.6**	--	<0.5	**0.7**	--	**3,130**	--	--
M-52A	Downgradient	Alluvial/Moqui	7879	12/1/2015	**190**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**280**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**6.4**	**--**	**0.4**	<0.7	**15**	**2,200**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-M-52A-0316	3/9/2016	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.2	<0.6	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-516	5/10/2016	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.3	<0.4	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-816	8/26/2016	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.6**	<0.6	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-916	9/22/2016	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.6**	<0.7	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M101-217	2/21/2017	**220**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**250**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**6.9**	**--**	<0.5	<0.6	**--**	**2,400**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-217	2/21/2017	**220**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**260**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**7.1**	**--**	<0.4	<0.6	**--**	**2,600**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-41117	4/11/2017	**240**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**250**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**6.5**	**--**	<0.6	<0.6	**--**	**2,400**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-42517	4/25/2017	**240**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**260**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**6.6**	**--**	**0.9**	<0.6	**--**	**2,400**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-51817	5/18/2017	**250**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**270**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**6.9**	**--**	<0.4	**0.6**	**--**	**2,400**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-52417	5/24/2017	**250**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**280**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**7.2**	**--**	<0.4	<0.6	**--**	**2,500**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-63017	6/30/2017	**190**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**250**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**5.6**	**--**	<0.5	<0.7	**--**	**2,200**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-72817	7/28/2017	**150**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**230**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**4.7**	**--**	<0.4	<0.7	**--**	**2,000**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-90717	9/7/2017	**140**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**240**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**4.6**	**--**	**0.6**	<0.6	**--**	**2,000**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-120717	12/7/2017	**150**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**240**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**5.2**	**--**	**--**	**--**	**--**	**2,000**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-21518	2/15/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.2**	**0.7**	**--**	--	--	--
M-52A	Downgradient	Alluvial/Moqui	--	5/20/2018	**230**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**280**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**6.6**	**--**	**--**	**--**	**--**	**2,500**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-6718	6/7/2018	**220**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**260**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**5.6**	**--**	<0.4	**0.7**	**--**	**2,200**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M-52A-102418	10/24/2018	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-M-52A-102418	10/24/2018	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.5	<0.7	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-12818	12/8/2018	**230**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**300**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**7.1**	**--**	<0.5	<0.7	**14**	**2,600**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	*DUP* CH-CCR-FD01-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.4	<0.6	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	*DUP* CH-CCR-FD01-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.5	<0.7	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.5	<0.7	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-8119	8/1/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-102419	10/24/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-0420	4/19/2020	**210 J**	<6	<6	**--**	**--**	<0.5	**1.4 J**	**5.0**	**2.9**	**250**	**--**	**1.2**	**1.1**	**--**	<0.5	**--**	**--**	**--**	**8.9**	**--**	**--**	**--**	**--**	**2,500**	**--**	**1.5**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-1020	10/22/2020	--	--	--	--	--	**0.54**	**1.3**	**0.41**	**0.21**	**--**	**--**	**1.6**	**1.6**	**--**	<0.25	--	--	--	--	--	<0.5	<0.8	--	--	--	**1.2**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-0421	4/17/2021	**--**	**--**	**--**	**--**	**--**	**0.14**	**1.4**	**4.0**	**3.8**	**--**	**--**	**2.4**	**2.4**	**--**	<0.25	**--**	**--**	**--**	**--**	**--**	<0.4	<0.8	**--**	**--**	**--**	**--**
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52-1021	10/29/2021	--	--	--	--	--	<0.05	**1.5 J**	**2.5**	**2.0**	--	--	**1.8**	**1.9**	--	<0.25	--	--	--	--	--	**0.5**	<0.6	--	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-0522	05/04/2022	--	--	--	--	--	<0.05	**1.5**	**7.0**	**4.9**	--	--	**2.1**	**2.0**	**--**	**0.83**	**--**	**--**	**--**	**2.6**	**--**	<0.4	<0.7	--	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-1022	10/24/2022	--	--	--	--	--	<0.05	--	**4.6**	--	--	--	**3**	--	--	<0.25	--	--	--	**0.63**	--	<0.4	**0.7**	--	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-MW52A-1022	10/24/2022	--	--	--	--	--	--	**2.2**	--	**3.8**	--	--	--	**3.1**	--	--	--	--	--	--	--	--	--	--	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-0423	04/19/2023	--	--	--	--	--	<0.05 UJ	**1.8**	**12**	**11**	**--**	**--**	**2.4**	**2.2**	**--**	<0.1	**--**	**--**	**--**	**6 J**	**--**	<0.38	<0.58	**--**	--	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-1023	10/11/2023	--	--	--	--	--	<0.05	**1.4**	**0.58**	<0.1	--	--	**2.3**	**2.3**	--	<0.1	--	--	--	**2.4**	--	<0.38	<0.72	--	--	--	--

Table C-6
Groundwater Sampling Results for the BAP Monitoring Wells - Additional Analyses

					Additional Analyses																												
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium	Sodium	Total Organic Carbon
Filtered:					N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
BAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																													
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-0424	04/23/2024	--	--	--	--	--	<0.05	**1.8**	**11 J**	**8.7 J**	**370 J**	--	**2.4**	**2.3**	--	<0.1	--	--	--	**7.1 J**	--	<0.6	**0.9**	--	**2,700**	--	--
M-52A	Downgradient	Alluvial/Moqui	CH-CCR-M52A-1024	10/28/2024	--	--	--	--	--	<0.0539 UJ	**1.53 J**	**0.757**	**0.33**	**225**	--	**1.93**	**1.88**	--	<0.2J	--	--	--	**4.14**	--	<0.4	<0.8	--	**1,640**	--	--
M-53A	Downgradient	Alluvial	7878	12/1/2015	**100**	<6.0	<6.0	--	--	--	--	--	--	**240**	--	--	--	--	--	--	--	--	**8.4**	--	<0.4	<0.7	**13**	**1,700**	--	--
M-53A	Downgradient	Alluvial	CH-M-53A-0316	3/9/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.2	**0.5**	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-DUP1-516	5/10/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.5	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-516	5/10/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.3	<0.4	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M101-816	8/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-816	8/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**0.6**	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-916	9/22/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-217	2/21/2017	**96**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**14**	--	<0.4	<0.6	--	**1,700**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-41217	4/12/2017	**110**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**12**	--	<0.5	**0.6**	--	**1,700**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-42517	4/25/2017	**120**	<6.0	<6.0	--	--	--	--	--	--	**190**	--	--	--	--	--	--	--	--	**6.5**	--	<0.4	<0.6	--	**1,700**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-51817	5/18/2017	**98**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**14**	--	<0.4	<0.6	--	**1,700**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-52417	5/24/2017	**98**	<6.0	<6.0	--	--	--	--	--	--	**240**	--	--	--	--	--	--	--	--	**15**	--	<0.4	<0.4	--	**1,700**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-70117	7/1/2017	**97**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**13**	--	<0.5	<0.7	--	**1,700**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-72817	7/28/2017	**110**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**14**	--	<0.4	<0.7	--	**1,700**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-90717	9/7/2017	**170**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**14**	--	<0.4	<0.6	--	**1,700**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-120717	12/7/2017	**98**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**13**	--	--	--	--	**1,600**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-21518	2/15/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.1**	**0.3**	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-FD01-52018	5/20/2018	**99**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**13**	--	<0.6	<0.7	--	**1,600**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M-53A-52018	5/20/2018	**99**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**13**	--	<0.6	<0.7	--	**1,600**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M-53A-102618	10/26/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-53A	Downgradient	Alluvial	CH-M-53A-102618	10/26/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
M-53A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-12718	12/7/2018	**91**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**13**	--	<0.5	**0.9**	**8.9**	**1,500**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-12718	12/7/2018	**92**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**13**	--	<0.5	**1.1**	**9.4**	**1,600**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-21519	2/15/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**0.8**	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-41719	4/17/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-102319	10/23/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-53A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-0420	4/19/2020	**96**	<6	<6	--	--	<0.5	**1.3**	<0.03	<0.1	**210**	--	**5.0**	**5.0**	--	<0.5	--	--	--	**12 J**	--	--	--	--	**1,600**	--	**1.2**
M-53A	Downgradient	Alluvial	CH-CCR-M53-0420	4/19/2020	**96**	<6	<6	--	--	<0.5	**1.2**	<0.03	<0.1	**210**	--	**5.2**	**4.8**	--	<0.5	--	--	--	**15 J**	--	--	--	--	**1,600**	--	**1.2**
M-53A	Downgradient	Alluvial	CH-CCR-M53-1020	10/22/2020	--	--	--	--	--	**0.29 J**	**1.1**	**0.051 J**	**0.051 J**	--	--	**5.2**	**4.7**	--	<0.25	--	--	--	--	--	<0.5	<0.8	--	--	--	**0.99**
M-53A	Downgradient	Alluvial	CH-CCR-M53-0421	4/17/2021	--	--	--	--	--	**0.22 J**	**1.3 J**	**0.10**	**0.091 J**	--	--	**4.1**	**4.2**	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	--
M-53A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-0421	4/17/2021	--	--	--	--	--	**0.11 J**	**1.2 J**	**0.064 J**	**0.056 J**	--	--	**4.1**	**4.2**	--	<0.25	--	--	--	--	--	<0.5	<0.7	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53-1021	10/28/2021	--	--	--	--	--	**0.25**	<1.2J	<0.1	**0.037 J**	--	--	**4.9**	**5.0**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-0522	05/04/2022	--	--	--	--	--	**0.16**	**1.4**	**0.042 J**	<0.1	--	--	**5.1**	**4.9**	--	**0.43**	--	--	--	--	--	<0.4	**0.8**	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-1022	10/23/2022	--	--	--	--	--	**0.26 J**	**1.9**	<0.1	<0.1	**260**	--	**5.5**	**5.1**	--	<0.25	--	--	--	**14**	--	**0.8**	<0.7	--	**1,600**	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-0423	04/19/2023	--	--	--	--	--	**0.23**	**1.4**	**0.17**	<0.1	--	--	**5.2**	**4.3**	--	<0.1	--	--	--	--	--	<0.38	<0.58	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-1023	10/19/2023	--	--	--	--	--	**0.25**	**1.1**	<0.1 UJ	<0.1 UJ	--	--	**5.1**	**4.9**	--	<0.1	--	--	--	--	--	<0.4	<0.75	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-0424	04/23/2024	--	--	--	--	--	**0.24**	**1.3**	<0.1	<0.1	--	--	**5.4**	**5.5**	--	<0.1	--	--	--	--	--	<0.59	<0.92	--	--	--	--
M-53A	Downgradient	Alluvial	CH-CCR-M53A-1024	10/24/2024	--	--	--	--	--	**0.272**	**1.91**	<0.05	<0.05	**202**	--	**6.33**	**6.44**	--	<0.2	--	--	--	--	--	**0.7**	<0.8	--	**1,490**	--	--
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-M71-1021	10/30/2021	--	--	--	--	--	**0.39**	**1.3**	<0.1	**0.051 J**	--	--	**5.4**	**5.3**	--	<0.25	--	--	--	--	--	<0.4	**0.8**	--	--	--	--
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-M71A-0522	5/10/2022	**85**	<6	<6	**85**	<6	**0.40**	**1.4**	<0.1	<0.1	**240**	--	**5.1**	**5.2**	--	<0.25	--	--	--	**14**	--	<0.4	**1.9**	--	**1,500**	--	--
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-1022	10/24/2022	**89**	<6	<6	**89**	<6	**0.39**	**1.9**	<0.1	<0.1	**260**	--	**5.7**	**5.7**	--	<0.25	--	--	--	**15**	--	**0.6**	<0.6	--	**1,700**	--	--
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-0423	04/19/2023	<6	<6	<6	<6	<6	**0.37**	**1.2**	<0.1	<0.1	**250**	--	**5.6**	**5.2**	--	<0.1	--	--	--	**16**	--	<0.37	<0.58	--	**1,700**	--	--
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-1023	10/18/2023	**84**	<6	<6	**84**	<6	**0.40**	**1.1**	<0.1 UJ	<0.1 UJ	**220**	--	**5.3**	**5.3**	--	<0.1	--	--	--	**15**	--	<0.39	<0.75	--	**1,600**	--	--
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-0424	05/01/2024	**87**	<6	<6	**87**	<6	**0.39**	**1.2**	<0.1	<0.1	**250**	--	**5.8**	**5.9**	--	<0.1	--	--	--	**17**	--	<0.55	<0.75	--	**2,200**	--	--
MW-71A	Downgradient	Alluvial/Moqui	CH-CCR-MW71A-1024	10/29/2024	**94.6**	--	--	--	--	**0.37**	**1.81**	**0.375**	<0.05	**224**	--	**5.61**	**5.3**	--	<0.2	--	--	--	**20.6**	--	<0.5	<0.7	--	**1,440**	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-M72-1021	10/30/2021	--	--	--	--	--	**1.5**	**1.7**	<0.2	**0.095 J**	--	--	**6.3**	**6.2**	--	<0.25	--	--	--	--	--	**5.7**	**5.5**	--	--	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-M72M-0522	5/10/2022	**42**	<6	<6	**42**	<6	**1.4**	**1.0**	**0.15 J**	**0.17 J**	**1,300**	--	**6.0**	**6.1**	--	<0.25	--	--	--	**160**	--	**4.1**	**2.7**	--	**13,000**	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-0522re	5/27/2022	**30**	<6	<6	**30**	<6	**1.1**	**0.64 J**	<1	<0.5	**1,100**	--	**4.6**	**4.8**	--	**6.3**	--	--	--	**110**	--	--	--	--	**14,000**	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-SS05-0522	5/27/2022	**29.9**	<20	<20	**29.9**	--	**1.04**	<5	<7.5	<7.5	**1,020**	--	**4.57**	**4.87**	--	**0.176**	--	--	--	**109**	--	--	--	--	**12,800**	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-1022	10/24/2022	**28**	<6	<6	**28**	<6	**0.8**	**2**	<0.4	<0.5	**1,200**	--	**3.9**	**3.6**	--	<0.25	--	--	--	**140**	--	**5.5**	**6**	--	**12,000**	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-0423	04/19/2023	**25**	<6	<6	**25**	<6	**0.77**	**1.0**	<0.5	<1	**1,100**	--	**3.5**	**3.3**	--	**0.29**	--	--	--	**100**	--	**6.6**	**7.7**	--	**12,000**	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-1023	10/18/2023	**21**	<6	<6	**21**	<6	**0.75**	**0.55**	<1	<1	**1,000**	--	**3.2**	**3.2**	--	**0.33**	--	--	--	**130**	--	**6.0**	**10.6**	--	**12,000**	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-0424	05/01/2024	**22**	<6	<6	**22**	<6	**0.78**	**0.95**	<0.1	<0.1	**1,300**	--	**3.2**	**3.2**	--	**0.31**	--	--	--	**220**	--	**5.2**	**8.2**	--	**14,000 J**	--	--
MW-72M	Downgradient	Alluvial/Moqui	CH-CCR-MW72M-1024	10/29/2024	**27.3**	--	--	--	--	**0.764**	**1.17**	**0.403**	<0.25	**1,010**	--	**3.42**	**3.55**	--	**0.289**	--	--	--	**156**	--	**6.3**	**6.5**	--	**10,900**	--	--
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-M73-1021	10/30/2021	--	--	--	--	--	**0.13**	**2.4**	<0.1	**0.088 J**	--	--	**3.3**	**3.2**	--	**0.31**	--	--	--	--	--	**0.5**	<0.6	--	--	--	--
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-M73A-0522	5/11/2022	**150**	<6	<6	**150**	<6	<0.05	**1.6**	**0.43**	**0.25**	**270**	--	**0.60**	**0.56**	--	**0.32**	--	--	--	**15**	--	<0.4	<0.7	--	**1,900**	--	--
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-1022	10/24/2022	**160**	<6	<6	**160**	<6	<0.05	**2.6**	**0.84**	**0.3**	**370**	--	**1.3**	**1.2**	--	<0.25	--	--	--	**21**	--	**0.7**	<0.6	--	**2,100**	--	--
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-0423	04/20/2023	**110**	<6	<6	**110**	<6	<0.05	**1.4**	**2.3**	**0.92**	**310**	--	**0.92**	**0.51**	--	**0.27**	--	--	--	**17**	--	<0.57	**1.4**	--	**1,800**	--	--
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-1023	10/18/2023	**130**	<6	<6	**130**	<6	<0.05	**1.2**	**0.44 J**	<0.1 UJ	**300**	--	**0.14**	**0.025**	--	**0.33**	--	--	--	**19**	--	<0.39	<0.75	--	**1,800**	--	--
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-0424	04/24/2024	**110**	<6	<6	**110**	<6	<0.05	**1.7**	**2.1 J**	**0.17 J**	**310 J**	--	**2.0**	**0.73**	--	**0.21**	--	--	--	**20 J**	--	<0.55	<0.92	--	**2,000**	--	--
MW-73A	Downgradient	Alluvial/Moqui	CH-CCR-MW73A-1024	10/29/2024	**91.1**	--	--	--	--	<0.0539	**1.88**	**1.76**	**0.547**	**263**	--	**0.537**	**0.23**	--	**0.228**	--	--	--	**22.3**	--	**0.6**	<0.7	--	**1,600**	--	--
MW-74M	Downgradient	Alluvial/Moqui	CH-DEV-MW74M-0921	9/29/2021	**77**	<6	<6	**77**	<6	--	--	**0.24**	--	**150**	--	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--	--
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-M74-1021	10/30/2021	--	--	--	--	--	**0.054**	**1.1**	**0.57**	**0.1**	--	--	**0.096**	**0.088**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-M74M-0522	5/11/2022	**85**	<6	<6	**85**	<6	<0.05	**1.1**	**0.21**	<0.1	**140**	--	**0.087**	**0.086**	--	<0.25	--	--	--	**14**	--	<0.4	<0.7	--	**1,500**	--	--
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-1022	10/25/2022	**84**	<6	<6	**84**	<6	<0.05	**1.8**	**0.21**	<0.1	**150**	--	**0.12**	**0.11**	--	<0.25	--	--	--	**14**	--	**0.5**	<0.6	--	**1,600**	--	--
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-0423	04/20/2023	**84**	<6	<6	**84**	<6	<0.05	**1.3**	**0.24**	**0.19**	**150**	--	**0.14**	**0.12**	--	<0.1	--	--	--	**14**	--	<0.56	<0.6	--	**1,600**	--	--
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-1023	10/18/2023	**86**	<6	<6	**86**	<6	<0.05	**0.98**	<0.1 UJ	<0.1 UJ	**140**	--	**0.15**	**0.14**	--	<0.1	--	--	--	**13**	--	<0.39	<0.75	--	**1,500**	--	--
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-0424	04/24/2024	**82**	<6	<6	**82**	<6	<0.05	**1.1**	**1.1 J**	<0.1	**170 J**	--	**0.24**	**0.19**	--	<0.1	--	--	--	**19 J**	--	<0.54	<0.92	--	**1,600**	--	--

Table C-6
Groundwater Sampling Results for the BAP Monitoring Wells - Additional Analyses

					Additional Analyses																										
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium	Sodium	Total Organic Carbon
Filtered:					N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
BAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																										
MW-74M	Downgradient	Alluvial/Moqui	CH-CCR-MW74M-1024	10/30/2024	**88.1**	--	--	--	--	<0.0539	**1.51**	**0.241**	<0.05	**146**	--	**0.201**	**0.189**	--	<0.2	--	--	--	**18.1**	--	**0.6**	<0.7	--	**1,500**	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-DEV-MW77A-0621	6/3/2021	**230 J**	<6 UJ	<6 UJ	**230 J**	<6 UJ	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**5.2**	--	--	--	--	**3,200**	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-BAPD-MW77A-0621	6/15/2021	**240**	<6	<6	**240**	<6	--	--	**0.083 J**	--	**110**	--	--	--	--	--	--	--	--	**5.2**	--	--	--	--	--	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0821	8/2/2021	--	--	--	--	--	<0.05	**1.3**	**0.036 J**	**0.04 J**	--	--	**0.64**	**0.71**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-M77-1021	10/28/2021	--	--	--	--	--	<0.05	**1.4**	<0.1	**0.048 J**	--	--	**0.65**	**0.66**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0422	4/28/2022	**240**	<6	<6	**240**	<6	<0.05	**1.2**	**0.050 J**	**0.041 J**	**120**	--	**0.66**	**0.68**	--	**1.8**	--	--	--	**3.6**	--	<0.4	<0.7	--	**3,100**	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-1022	10/22/2022	**240**	<6	<6	**240**	<6	<0.05	**1.9**	<0.1	<0.1	**130**	--	**0.8**	**0.71**	--	<0.25	--	--	--	**3.3**	--	**0.5**	<0.7	--	**3,100**	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0423	04/25/2023	**230**	<6	<6	**230**	<6	<0.05	**1.1**	<0.1	<0.1	**110**	--	**0.72**	**0.74**	--	<0.1	--	--	--	**2.5**	--	**0.6**	**0.7**	--	**2,900**	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-1023	10/17/2023	**220**	<6	<6	**220**	<6	<0.05	**1.3**	<0.1 UJ	<0.1 UJ	**100**	--	**0.66**	**0.65**	--	<0.1	--	--	--	**3.8**	--	<0.39	<0.75	--	**3,300**	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-0424	04/18/2024	**220**	<6	<6	**220**	<6	<0.05	**1.5**	<0.1	<0.1	**120**	--	**0.69**	**0.69**	--	<0.1	--	--	--	**9.2**	--	<0.45	<0.75	--	**3,400**	--	--
MW-77A	Downgradient	Alluvial/Moqui	CH-CCR-MW77A-1024	10/30/2024	**230**	--	--	--	--	**0.873**	**1.94**	<0.05	<0.05	**108**	--	**0.685**	**0.69**	--	<0.2	--	--	--	**10.5**	--	<0.5	<0.7	--	**2,900**	--	--
MW-78A	Downgradient	Alluvial	CH-DEV-MW78A-0621	6/8/2021	**150**	<6	<6	**150**	<6	--	--	--	--	**130**	--	--	--	--	--	--	--	--	**9.2**	--	--	--	--	**1,700**	--	--
MW-78A	Downgradient	Alluvial	CH-BAPD-MW78A-0621	6/14/2021	**160**	<6	<6	**160**	<6	--	--	**0.27**	--	**140**	--	--	--	--	--	--	--	--	**9.2**	--	--	--	--	--	--	--
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-0821	8/2/2021	--	--	--	--	--	**0.34**	**0.56**	**0.33**	**0.33**	--	--	**5.3**	**5.7**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
MW-78A	Downgradient	Alluvial	CH-CCR-M78-1021	10/28/2021	--	--	--	--	--	**0.32**	**0.68**	<0.3	**0.32**	--	--	**5.6**	**5.7**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
MW-78A	Downgradient	Alluvial	CH-CCR-M78A-0522	5/11/2022	**150**	<6	<6	**150**	<6	**0.35**	**0.71**	**0.2**	**0.21**	**140**	--	**5.5**	**5.5**	--	<0.25	--	--	--	**8.7**	--	<0.4	<0.6	--	**1,700**	--	--
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-1022	10/25/2022	**150**	<6	<6	**150**	<6	**0.35**	**1.3**	**0.28**	**0.2**	**140**	--	**5.9**	**6**	--	<0.25	--	--	--	**8.1**	--	<0.4	<0.6	--	**1,900**	--	--
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-0423	04/24/2023	**150**	<6	<6	**150**	<6	**0.35**	**0.58**	**0.17**	**0.17**	**140**	--	**5.7**	**5.7**	--	<0.1	--	--	--	**7.9**	--	**0.7**	**1.0**	--	**1,700**	--	--
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-1023	10/23/2023	**140**	<6	<6	**140**	<6	**0.36**	**0.63**	<0.1	**0.11**	**130**	--	**5.6**	**5.7**	--	<0.1	--	--	--	**9.0**	--	<0.41	<0.73	--	**1,700**	--	--
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-0424	04/19/2024	**140**	<6	<6	**140**	<6	**0.36**	**0.99**	**0.17**	**0.16**	**150**	--	**5.5**	**5.4**	--	<0.1	--	--	--	**12.0**	--	**0.8**	<0.75	--	**1,900**	--	--
MW-78A	Downgradient	Alluvial	CH-CCR-MW78A-1024	10/23/2024	**--**	--	--	**--**	--	**0.324**	**1.01**	**0.0988**	**0.0934**	**126**	--	**5.54**	**5.47**	--	<0.2	--	--	--	**12.7**	--	**0.4**	1.3	--	**1,730**	--	--
MW-79A	Downgradient	Alluvial	CH-BAPD-MW79A-0621	6/14/2021	**130**	<6	<6	**130**	<6	--	--	**1.6**	--	**95**	--	--	--	--	--	--	--	--	**10**	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CRT-M79A-0621_062421	6/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CRT2-M79A-0621_062421	6/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CRT2-M79A-0621_062521	6/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-0821	8/2/2021	--	--	--	--	--	<0.05	**0.75**	**0.65**	**0.62**	--	--	**3.9 J**	**4.0**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CCR-M79-1021	10/25/2021	--	--	--	--	--	<0.05	**0.65**	<0.24	**0.24**	--	--	**3.8**	**3.8**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD03-1021	10/25/2021	--	--	--	--	--	<0.05	**0.67**	<0.23	**0.22**	--	--	**3.9**	**3.9**	--	<0.25	--	--	--	--	--	**0.4**	<0.6	--	--	--	--
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-0423	04/14/2023	**120 J**	<6 UJ	<6 UJ	**120 J**	<6 UJ	<0.05 UJ	**1.2 J**	<0.1	<0.1	**110**	--	**4.3**	**4.3**	--	<0.1 UJ	--	--	--	**12**	--	**0.7**	<0.6	--	**1,600**	--	--
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-0423	04/14/2023	**120 J**	<6 UJ	<6 UJ	**120 J**	<6 UJ	<0.05 UJ	**1.3 J**	<0.1	<0.1	**100**	--	**4.3**	**4.5**	--	<0.1 UJ	--	--	--	**11**	--	<0.54	<0.6	--	**1,600**	--	--
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-1023	10/13/2023	**120**	<6	<6	**120**	<6	<0.05	**0.77**	<0.1	<0.1	**90**	--	**3.9**	**3.8**	--	<0.1	--	--	--	**9.7**	--	<0.4	**0.7**	--	**1,600**	--	--
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-1023	10/13/2023	**120**	<6	<6	**120**	<6	<0.05	**0.73**	<0.1	<0.1	**95**	--	**3.9**	**3.9**	--	<0.1	--	--	--	**11**	--	<0.4	**1.5**	--	**1,500**	--	--
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-0424	04/30/2024	**120**	<6	<6	**120**	<6	<0.05	**0.77**	<0.1	<0.1	**94**	--	**4.0**	**4.0**	--	<0.1	--	--	--	**11**	--	<0.53	<0.75	--	**2,200 J**	--	--
MW-79A	Downgradient	Alluvial	*DUP* CH-CCR-FD02-0424	04/30/2024	**120**	<6	<6	**120**	<6	<0.05	**0.82**	<0.1	<0.1	**94**	--	**4.0**	**4.0**	--	<0.1	--	--	--	**11**	--	<0.52	<0.75	--	**1,600 J**	--	--
MW-79A	Downgradient	Alluvial	CH-CCR-MW79A-1024	11/11/2024	**124**	--	--	--	--	<0.0539	**1.68**	**0.0909**	<0.05	**93.3**	--	**4.06**	**3.98**	--	<0.2	--	--	--	**13.7**	--	**1.1**	**1.6**	--	**1,640**	--	--
W-305	Downgradient	Alluvial	--	12/2/2015	**110**	<6	<6	--	--	--	--	--	--	**120**	--	--	--	--	--	--	--	--	**3.8**	--	--	--	**0.0047**	**1,600**	--	--
W-305	Downgradient	Alluvial	--	3/9/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	--	5/11/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	--	8/27/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	--	9/22/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	--	2/21/2017	**110**	<6	<6	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**3.2**	--	--	--	--	**1,600**	--	--
W-305	Downgradient	Alluvial	--	4/11/2017	**110**	<6	<6	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**3.0**	--	--	--	--	**1,500**	--	--
W-305	Downgradient	Alluvial	--	4/24/2017	**110**	<6	<6	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**3.0**	--	--	--	--	**1,600**	--	--
W-305	Downgradient	Alluvial	--	5/22/2017	**110**	<6	<6	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	**1,600**	--	--
W-305	Downgradient	Alluvial	--	5/24/2017	**110**	<6	<6	--	--	--	--	--	--	**120**	--	--	--	--	--	--	--	--	**3.2**	--	--	--	--	**1,700**	--	--
W-305	Downgradient	Alluvial	--	6/29/2017	**110**	<6	<6	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	**1,500**	--	--
W-305	Downgradient	Alluvial	--	7/28/2017	**110**	<6	<6	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	**1,500**	--	--
W-305	Downgradient	Alluvial	--	9/6/2017	**110**	<6	<6	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	**1,500**	--	--
W-305	Downgradient	Alluvial	--	12/7/2017	**110**	<6	<6	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**3.2**	--	--	--	--	**1,500**	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-21518	2/15/2018	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.295**	**0.347**	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W-305-51918	5/19/2018	**110**	<6.0	<6.0	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**3.0**	--	<0.5	<0.7	--	**1,500**	--	--
W-305	Downgradient	Alluvial	CH-CCR-W-305-51918	5/19/2018	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W-305-102618	10/26/2018	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	CH-W-305-102618	10/26/2018	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.6	<0.7	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-12718	12/7/2018	**99**	<6.0	<6.0	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**3.0**	--	<0.5	<0.7	**11**	**1,500**	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-21519	2/15/2019	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**0.8**	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-41719	4/17/2019	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-8119	8/1/2019	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	*DUP* CH-CCR-FD01-102319	10/23/2019	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-102319	10/23/2019	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-0420	4/18/2020	**100**	<6	<6	**--**	--	<0.5	**1.7**	**0.48**	**0.28**	**110**	--	**8.1**	**7.3**	--	<0.5	--	--	--	**1.4 J**	--	--	--	--	**1,600**	--	**1.8**
W-305	Downgradient	Alluvial	CH-CCR-W305-1020	10/22/2020	--	--	--	--	--	<0.5	**1.7 J**	**0.36**	**0.36**	**--**	--	**7.2**	**7.0**	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	**1.5**
W-305	Downgradient	Alluvial	CH-CCR-W305-0421	4/17/2021	**--**	--	--	--	--	**0.15**	**1.6 J**	**0.36**	**0.33**	**--**	--	**6.9**	**6.7**	--	<0.25	--	--	--	--	--	<0.5	<0.7	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-1021	10/29/2021	--	--	--	--	--	**0.15**	**1.8**	<0.24	**0.24**	--	--	**6.7**	**6.6**	--	<0.25	--	--	--	--	--	**0.5**	<0.6	--	--	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-0522	5/12/2022	**110**	<6	<6	**110**	<6	**0.17**	**1.9**	**0.36**	**0.33**	**120**	--	**6.5**	**6.5**	--	**3.1**	--	--	--	**1.3**	--	<0.4	<0.6	--	**1,500**	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-1022	10/20/2022	**110**	<6	<6	**110**	<6	**0.2**	**2.5**	**0.44**	**0.4**	**140**	--	**7.8**	**6.8**	--	<0.25	--	--	--	**0.74**	--	**0.9**	<0.7	--	**1,400**	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-0423	04/14/2023	**100 J**	<6 UJ	<6 UJ	**100 J**	<6 UJ	**0.17 J**	**2.3 J**	**0.43**	**0.34**	**130**	--	**7.1**	**7.0**	--	<0.1 UJ	--	--	--	**2.2**	--	<0.53	<0.6	--	**1,700**	--	--

Table C-6
Groundwater Sampling Results for the BAP Monitoring Wells - Additional Analyses

					Additional Analyses																												
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium	Sodium	Total Organic Carbon
Filtered:					N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
BAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																													
W-305	Downgradient	Alluvial	CH-CCR-W305-1023	11/21/2023	**100**	<6	<6	**100**	<6	**0.14**	**1.17**	**0.32**	**0.30**	**120**	--	**6.5**	**6.6**	--	<0.1	--	--	--	**1.8**	--	<0.4	<0.75	--	**2,300**	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-0424	05/02/2024	**100**	<6	<6	**100**	<6	**0.14**	**1.9**	**0.32**	**0.26**	**120**	--	**6.1**	**6.0**	--	<0.1	--	--	--	**2.1**	--	<0.51	<0.75	--	**2,300**	--	--
W-305	Downgradient	Alluvial	CH-CCR-W305-1024	11/11/2024	**103**	--	--	--	--	**0.104**	**2.4**	**0.247**	**0.208**	**112**	--	**5.38**	**5.27**	--	<0.2	--	--	--	**4.6**	--	**0.9**	<0.8	--	**1,510**	--	--
W-306	Downgradient	Alluvial	7797	12/2/2015	**100**	<6.0	<6.0	--	--	--	--	--	--	**120**	--	--	--	--	--	--	--	--	**5.6**	--	<0.4	<0.7	**11**	**2,500**	--	--
W-306	Downgradient	Alluvial	CH-W-306-0316	3/9/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.2	<0.6	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-516	5/11/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.3	<0.4	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-816	8/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.5**	<0.6	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-916	9/22/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.3	<0.7	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-217	2/21/2017	**150**	<6.0	<6.0	--	--	--	--	--	--	**240**	--	--	--	--	--	--	--	--	**3.3**	--	<0.4	<0.6	--	**6,100**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-41217	4/12/2017	**150**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**3.2**	--	<0.4	<0.6	--	**5,600**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-42517	4/25/2017	**150**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**2.8**	--	<0.4	<0.6	--	**5,800**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-52217	5/22/2017	**160**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**2.9**	--	<0.4	<0.6	--	**5,700**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-52417	5/24/2017	**150**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**2.8**	--	<0.5	<0.6	--	**5,700**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-70117	7/1/2017	**140**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**2.7**	--	<0.4	<0.7	--	**6,000**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-72817	7/28/2017	**140**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**2.4**	--	<0.4	**1.1**	--	**5,400**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-90617	9/6/2017	**140**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**2.2**	--	<0.5	<0.7	--	**5,700**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-120717	12/7/2017	**140**	<6.0	<6.0	--	--	--	--	--	--	**220**	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	**5,100**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-21518	2/15/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.1**	**0.3**	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-FD02-21518	2/15/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.1**	**0.2**	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W-306-51918	5/19/2018	**140**	<6.0	<6.0	--	--	--	--	--	--	**210**	--	--	--	--	--	--	--	--	**2.5**	--	<0.5	**0.8**	--	**5,900**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W-306-102618	10/26/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-306	Downgradient	Alluvial	CH-W-306-102618	10/26/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-12718	12/7/2018	**130**	<6.0	<6.0	--	--	--	--	--	--	**230**	--	--	--	--	--	--	--	--	**2.6**	--	<0.5	<0.7	**12**	**5,700**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-21519	2/15/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-41619	4/16/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-102319	10/23/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-306	Downgradient	Alluvial	*DUP* CH-CCR-FD04-0420	4/19/2020	**130**	<6	<6	--	--	<0.5	**2.7**	<0.03	<0.1	**230**	--	<0.003	<0.01	--	<0.5	--	--	--	**9.7 J**	--	--	--	--	**5,500**	--	**2.5**
W-306	Downgradient	Alluvial	CH-CCR-W306-0420	4/19/2020	**130**	<6	<6	--	--	<0.5	**2.6**	<0.03	<0.1	**230**	--	<0.015	<0.01	--	<0.5	--	--	--	**3.6 J**	--	--	--	--	**5,700**	--	**2.4**
W-306	Downgradient	Alluvial	CH-CCR-W306-1020	10/22/2020	--	--	--	--	--	<0.5	**2.2**	**0.11**	**0.1**	--	--	**0.0011 J**	<0.01	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	**2.2**
W-306	Downgradient	Alluvial	CH-CCR-W306-0421	4/17/2021	--	--	--	--	--	<0.05	**2.4**	**0.11**	**0.11**	--	--	**0.011**	**0.0091 J**	--	<0.25	--	--	--	--	--	<0.4	<0.7	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-1021	10/29/2021	--	--	--	--	--	<0.05	**2.6**	<0.1	**0.083 J**	--	--	**0.035**	**0.041**	--	<0.25	--	--	--	--	--	**0.4**	<0.6	--	--	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-0522	05/04/2022	**130**	<6	<6	**130**	<6	<0.05	**2.6**	**0.10**	**0.088 J**	**230**	--	**0.0078 J**	**0.0085 J**	--	**0.48**	--	--	--	<0.5	--	<0.4	<0.6	--	**6,000**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-1022	10/23/2022	**130**	<6	<6	**130**	<6	<0.05	**3.4**	**0.13**	**0.14**	**270**	--	**0.017**	**0.012**	--	<0.25	--	--	--	<0.5	--	**0.9**	<0.7	--	**5,600**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-0423	04/19/2023	**130**	<6	<6	**130**	<6	<0.05	**2.6**	**0.19**	<0.1	**250**	--	**0.018**	**0.012**	--	<0.1	--	--	--	**8.2**	--	<0.54	**0.8**	--	<0.5	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-1023	10/19/2023	**120**	<6	<6	**120**	<6	<0.05	**2.4**	<0.1	<0.1	**230**	--	**0.013**	**0.01**	--	<0.1	--	--	--	**6.4**	--	<0.38	<0.75	--	**5,800**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-0424	04/23/2024	**120**	<6	<6	**120**	<6	<0.05	**2.4**	**0.18**	**0.17**	**270**	--	**0.036**	**0.033**	--	<0.1	--	--	--	**22**	--	<0.52	<0.92	--	**6,600**	--	--
W-306	Downgradient	Alluvial	CH-CCR-W306-1024	10/24/2024	--	--	--	--	--	<0.0539	**2.88**	<0.05	<0.05	**212**	--	**0.0243**	**0.0232**	--	<0.2	--	--	--	**6.48 J**	--	**0.8**	<0.8	--	**5,390**	--	--
W-314	Downgradient	Alluvial	7798	12/2/2015	**99**	<6.0	<6.0	--	--	--	--	--	--	**150**	--	--	--	--	--	--	--	--	**2.4**	--	<0.4	<0.7	**9.2**	**1,500**	--	--
W-314	Downgradient	Alluvial	CH-W-314-0316	3/10/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.2	<0.5	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-516	5/11/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.3	<0.5	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-816	8/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-916	9/22/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-217	2/21/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**160**	--	--	--	--	--	--	--	--	**2.1**	--	<0.4	<0.6	--	**1,600**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-41117	4/11/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**160**	--	--	--	--	--	--	--	--	**1.9**	--	<0.4	<0.6	--	**1,500**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-42517	4/25/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**160**	--	--	--	--	--	--	--	--	**1.8**	--	**0.5**	<0.6	--	**1,600**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-52217	5/22/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**170**	--	--	--	--	--	--	--	--	**1.9**	--	<0.4	<0.6	--	**1,600**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-52417	5/24/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**170**	--	--	--	--	--	--	--	--	**1.9**	--	<0.5	<0.6	--	**1,600**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-63017	6/30/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**160**	--	--	--	--	--	--	--	--	**1.6**	--	<0.4	<0.7	--	**1,500**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-72817	7/28/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**160**	--	--	--	--	--	--	--	--	**1.7**	--	<0.4	<0.6	--	**1,500**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-90717	9/7/2017	**110**	<6.0	<6.0	--	--	--	--	--	--	**170**	--	--	--	--	--	--	--	--	**1.7**	--	<0.5	<0.7	--	**1,500**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-120717	12/7/2017	**100**	<6.0	<6.0	--	--	--	--	--	--	**170**	--	--	--	--	--	--	--	--	**2.0**	--	--	--	--	**1,500**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-21518	2/15/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.1**	**0.2**	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W-314-52018	5/20/2018	**100**	<6.0	<6.0	--	--	--	--	--	--	**160**	--	--	--	--	--	--	--	--	**1.9**	--	<0.5	<0.7	--	**1,500**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W-314-102418	10/24/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-314	Downgradient	Alluvial	CH-W-314-102418	10/24/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-12818	12/8/2018	**94**	<6.0	<6.0	--	--	--	--	--	--	**160**	--	--	--	--	--	--	--	--	**1.8**	--	<0.5	**0.7**	**8.9**	**1,500**	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-21519	2/15/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-41619	4/16/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.7	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-8119	8/1/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-102419	10/24/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-0420	4/19/2020	**98**	<6	<6	--	--	<0.5	**1.0**	<0.03	<0.1	**170**	--	**0.063**	**0.057**	--	<0.5	--	--	--	<0.73	--	--	--	--	**1,500**	--	**0.97**
W-314	Downgradient	Alluvial	CH-CCR-W314-1020	10/23/2020	--	--	--	--	--	<0.5	**0.98**	**0.058 J**	**0.04 J**	--	--	**0.082**	**0.082**	--	**4.5**	--	--	--	--	--	<0.4	<0.8	--	--	--	**0.95**
W-314	Downgradient	Alluvial	CH-CCR-W314-0421	4/16/2021	--	--	--	--	--	<0.05	**1.2**	**0.12**	**0.059 J**	--	--	**0.096**	**0.070**	--	<0.25	--	--	--	--	--	<0.4	<0.7	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-1021	10/29/2021	--	--	--	--	--	<0.05	**1.4**	**0.073 J**	**0.058 J**	--	--	**0.093**	**0.094**	--	<0.25	--	--	--	--	--	<0.3	<0.6	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-0522	5/11/2022	**110**	<6	<6	**110**	<6	<0.05	**1.4**	**0.11**	<0.1	--	--	**0.097**	**0.063**	--	**3.9**	--	--	--	--	--	<0.3	<0.6	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-1022	10/25/2022	--	--	--	--	--	<0.05	**1.9**	<0.1	<0.1	--	--	**0.17**	**0.16**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-0423	04/20/2023	--	--	--	--	--	<0.05	**1.6**	**0.10**	<0.1	--	--	**0.24**	**0.21**	--	<0.1	--	--	--	--	--	<0.51	<0.6	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-1023	10/18/2023	--	--	--	--	--	<0.05	**1.3**	<0.1	<0.1	--	--	**0.24**	**0.26**	--	<0.1	--	--	--	--	--	<0.38	<0.75	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-0424	04/29/2024	--	--	--	--	--	<0.05	**1.7**	<0.1	<0.1	--	--	**0.29**	**0.31**	--	<0.1	--	--	--	--	--	<0.5	<0.75	--	--	--	--
W-314	Downgradient	Alluvial	CH-CCR-W314-1024	10/30/2024	--	<20	<20	--	--	<0.0539	**1.73**	<0.05	<0.05	**160**	--	**0.272**	**0.28**	--	<0.2	--	--	--	**3.33**	--	<0.5	<0.7	--	**1,600**	--	--

Table C-6
Groundwater Sampling Results for the BAP Monitoring Wells - Additional Analyses

					Additional Analyses																													
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium	Sodium	Total Organic Carbon
Filtered:					N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
BAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																														
BSX-01	Extraction Well	Moqui	CH-BAPD-BSX01-0621	6/14/2021	**110**	<6	<6	**110**	<6	--	--	**0.11**	--	**250**	--	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--	--	--
BSX-01	Extraction Well	Moqui	CH-CRT-BSX01-0621_062221	6/22/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-01	Extraction Well	Moqui	CH-CCR-BSX01-0821	8/2/2021	--	--	--	--	--	**0.28**	**1.2**	**0.31**	**0.29**	--	--	**4.4**	**4.7**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
BSX-02	Extraction Well	Moqui	CH-CCR-BSX02-0821	8/2/2021	--	--	--	--	--	**0.067**	**1.3**	**0.23**	**0.26**	--	--	**2.7**	**2.8**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
BSX-03	Extraction Well	Moqui	CH-CRT-BSX03-0621_062621	6/26/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-03	Extraction Well	Moqui	CH-CRT-BSX03-0621_062321	6/23/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-03	Extraction Well	Moqui	CH-CCR-BSX03-0821	8/2/2021	--	--	--	--	--	**0.27**	**1.3**	**0.11**	**0.083 J**	--	--	**4.0**	**4.1**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
BSX-04	Extraction Well	Moqui	CH-CRT-BSX04-0621_062721_AM	6/27/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-04	Extraction Well	Moqui	CH-CRT-BSX04-0621_062721_PM	6/27/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BSX-04	Extraction Well	Moqui	CH-CCR-BSX04-0821	8/3/2021	--	--	--	--	--	<0.05	**2.1**	**0.30**	**0.28**	--	--	**0.95**	**1.0**	--	<0.25	--	--	--	--	--	**0.4**	<0.6	--	--	--	--
BSX-05	Extraction Well	Alluvial	CH-CCR-BSX05-0821	8/3/2021	--	--	--	--	--	**0.23**	**1.4**	**0.54**	**0.56**	--	--	**6.6**	**6.9**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
M-55A	Supplementary	Alluvial	7877	12/1/2015	**180**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**140**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.3**	**--**	<0.5	<0.9	**22**	**2,200**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-M-55A-0316	3/9/2016	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**0.2**	<0.6	**--**	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-516	5/10/2016	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.3	<0.5	**--**	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-816	8/26/2016	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.4	<0.6	**--**	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-916	9/22/2016	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.4	**0.8**	**--**	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-217	2/21/2017	**200**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**150**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.6**	**--**	<0.4	<0.6	**--**	**2,900**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-41217	4/12/2017	**200**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**140**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.1**	**--**	<0.5	**1.4**	**--**	**2,800**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-42517	4/25/2017	**210**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**150**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.2**	**--**	<0.4	**1.0**	**--**	**2,900**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-51817	5/18/2017	**210**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**150**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.2**	**--**	<0.4	**1.1**	**--**	**2,800**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-52417	5/24/2017	**210**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**150**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.1**	**--**	<0.4	**1.5**	**--**	**2,900**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-70117	7/1/2017	**210**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**150**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**2.9**	**--**	<0.5	**0.9**	**--**	**2,800**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-72817	7/28/2017	**200**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**160**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**2.9**	**--**	<0.4	<0.7	**--**	**3,000**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-90717	9/7/2017	**210**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**160**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.1**	**--**	<0.4	**1.2**	**--**	**2,900**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-12818	12/8/2018	**190**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**160**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.0**	**--**	<0.5	**0.9**	**12**	**2,900**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.4	**1.2**	**--**	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-8119	8/1/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55A-102419	10/24/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55-0420	4/17/2020	**190**	<6	<6	**--**	**--**	<0.5	**3.4**	**0.04 J**	<0.1	**160**	**--**	<0.015	<0.01	**--**	**0.52**	**--**	**--**	**--**	**6.5**	**--**	**--**	**--**	**--**	**2,900**	**--**	**3.2**
M-55A	Supplementary	Alluvial	CH-CCR-M55-1020	10/24/2020	--	--	--	--	--	<0.5	**3.2**	**0.17**	**0.057 J**	**--**	**--**	**0.017**	**0.016**	**--**	**0.48**	--	--	--	--	--	<0.4	<0.8	--	--	--	**3**
M-55A	Supplementary	Alluvial	CH-CCR-M55-0421	4/18/2021	**--**	**--**	**--**	**--**	**--**	<0.05	**3.1**	**0.13**	**0.075 J**	**--**	**--**	**0.0038 J**	**0.0039 J**	**--**	**0.62**	**--**	**--**	**--**	**--**	**--**	<0.4	<0.8	**--**	**--**	**--**	**--**
M-55A	Supplementary	Alluvial	CH-CCR-M55-1021	10/27/2021	--	--	--	--	--	**0.061**	**2.7**	<0.23	**0.042 J**	--	--	<0.01	<0.01	--	**1.1**	--	--	--	--	--	<0.4	**0.9**	--	--	--	--
M-55A	Supplementary	Alluvial	CH-CCR-M55A-0522	5/12/2022	--	--	--	--	--	<0.05	**3.3**	<0.1	<0.1	**160**	--	<0.01	<0.01	--	**0.87**	--	--	--	<0.5	--	<0.4	**0.8**	--	**3,000**	--	--
M-55A	Supplementary	Alluvial	CH-CCR-M55A-0423	04/20/2023	--	--	--	--	--	<0.05	**3.7**	**0.16**	<0.1	**180**	**--**	<0.01	<0.01	**--**	**0.63**	**--**	**--**	**--**	**2.5**	**--**	<0.38	**0.9**	**--**	**3,500**	**--**	--
M-55A	Supplementary	Alluvial	CH-CCR-M55A-1023	10/12/2023	--	--	--	--	--	<0.05	**3.8**	<0.1	<0.1	**170**	--	<0.01	<0.01	--	**0.53**	--	--	--	**1.4**	--	**1.2**	**1.1**	--	**3,300**	--	--
M-55A	Supplementary	Alluvial	CH-CCR-M55A-0424	04/22/2024	--	--	--	--	--	<0.05	**3.6**	**0.17 J**	<0.1	**200 J**	--	<0.01	<0.01	--	**0.49**	--	--	--	**2.8 J**	--	<0.58	<0.92	--	**3,700**	--	--
M-55A	Supplementary	Alluvial	CH-CCR-M55A-1024	10/22/2024	--	--	--	--	--	<0.0539	**3.59**	**0.536**	<0.05	**174**	**--**	**0.0427**	**0.0276**	**--**	**0.438**	**--**	**--**	**--**	**5.01 J**	**--**	**0.4**	**2.1**	**--**	**3,120**	**--**	**--**
MW-69A	Supplementary	Alluvial	CH-CCR-M69-0420	4/19/2020	**140**	<6	<6	**--**	**--**	<0.5	**1.7**	**0.21**	<0.1	**170**	**--**	**8.6**	**8.2**	**--**	<0.5	**--**	**--**	**--**	**10**	**--**	**--**	**--**	**--**	**1,800**	**--**	**1.7**
MW-69A	Supplementary	Alluvial	CH-CCR-M69-1020	10/23/2020	--	--	--	--	--	<0.5	**1.5**	**2.3**	**1.1**	**--**	**--**	**8.2**	**8.1**	**--**	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	**1.5**
MW-69A	Supplementary	Alluvial	CH-CCR-M69-0421	4/17/2021	**--**	**--**	**--**	**--**	**--**	<0.05	**1.5**	**0.50**	**0.17**	**--**	**--**	**1.7**	**0.66**	**--**	<0.25	**--**	**--**	**--**	**--**	**--**	<0.4	<0.8	**--**	**--**	**--**	**--**
MW-69A	Supplementary	Alluvial	CH-CCR-M69-1021	10/29/2021	--	--	--	--	--	**0.039 J**	**1.6**	**0.61**	**0.23**	--	--	**4.2**	**4.2**	--	<0.25	--	--	--	--	--	**0.6**	<0.6	--	--	--	--
MW-69A	Supplementary	Alluvial	CH-CCR-M69A-0522	05/04/2022	**150**	<6	<6	**150**	<6	<0.05	**1.6**	**0.66**	**0.15**	**170**	**180**	**1.3**	**0.16**	**--**	**0.33**	**--**	**--**	**--**	**4.8**	**5.8**	<0.4	<0.7	**--**	**1,800**	**1,200**	**--**
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-1022	10/24/2022	**150**	<6	<6	**150**	<6	**0.061**	**2.4**	**0.56**	<0.1	**180**	--	**3.9**	**3.3**	--	<0.25	--	--	--	**4.4**	--	<0.4	<0.6	--	**1,800**	--	--
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-0423	04/19/2023	**150**	<6	<6	**150**	<6	<0.05	**1.4**	**0.31**	<0.1	**200**	**--**	**0.26**	**0.095**	**--**	<0.1	**--**	**--**	**--**	**6.7**	**--**	<0.38	<0.58	**--**	**2,000**	**--**	**--**
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-1023	10/19/2023	**140**	<6	<6	**140**	<6	**0.055**	**1.3**	**0.5 J**	<0.1 UJ	**160**	**--**	**2.9**	**2.8**	**--**	<0.1	**--**	**--**	**--**	**5.1**	**--**	<0.4	**1.2**	**--**	**1,800**	**--**	**--**
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-0424	04/25/2024	**140**	<6	<6	**140**	<6	<0.05	**1.4**	**1.0 J**	**0.48 J**	**220 J**	**--**	**0.76**	**0.10**	**--**	<0.1	**--**	**--**	**--**	**8.4 J**	**--**	<0.56	<0.92	**--**	**2,100**	**--**	**--**
MW-69A	Supplementary	Alluvial	CH-CCR-MW69A-1024	10/25/2024	**--**	--	--	--	--	<0.0539	**1.66**	**0.368**	<0.05	**179**	**--**	**2.66**	**2.18**	**--**	<0.2	**--**	**--**	**--**	**9.08**	**--**	**0.5**	<0.8	**--**	**1,890**	**--**	**--**
MW-70M	Supplementary	Moqui	CH-CCR-M70-0420	4/19/2020	**85**	<6	<6	**--**	**--**	<0.5	**1.7**	**0.072 J**	<0.1	**160**	**--**	**1.8**	**1.8**	**--**	<0.5	**--**	**--**	**--**	**11**	**--**	<0.4	<0.6	**--**	**1,500**	**--**	**1.3**
MW-70M	Supplementary	Moqui	CH-CCR-M70-1020	10/23/2020	--	--	--	--	--	<0.5	**1.2**	**0.093 J**	**0.09 J**	**--**	**--**	**1.8**	**1.7**	**--**	**0.4**	--	--	--	--	--	<0.4	<0.8	--	--	--	**1.1**
MW-70M	Supplementary	Moqui	*DUP* CH-CCR-FD03-1020	10/23/2020	--	--	--	--	--	<0.5	**1.1**	**0.085 J**	**0.072 J**	**--**	**--**	**1.8**	**1.6**	**--**	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	**1**
MW-70M	Supplementary	Moqui	CH-CCR-M70-0421	4/17/2021	**--**	**--**	**--**	**--**	**--**	<0.05	**1.3**	**0.087 J**	**0.083 J**	**--**	**--**	**1.8**	**1.9**	**--**	<0.25	**--**	**--**	**--**	**--**	**--**	<0.4	<0.8	**--**	**--**	**--**	**--**
MW-70M	Supplementary	Moqui	CH-CCR-M70-1021	10/29/2021	--	--	--	--	--	**0.041 J**	**1.4**	<0.1	**0.065 J**	--	--	**1.7**	**1.7**	--	<0.25	--	--	--	--	--	**0.6**	<0.6	--	--	--	--
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-0522	05/04/2022	**95**	<6	<6	**95**	<6	<0.05	**1.4**	**0.050 J**	**0.072**	**150**	**160**	**1.7**	**1.8**	--	**0.49**	**--**	**--**	**--**	**7.5**	**7.7**	<0.4	**0.8**	**--**	**1,600**	**1,500**	**--**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-1022	10/24/2022	**92**	<6	<6	**92**	<6	<0.05 J	**1.9**	**0.11**	<0.1	**170**	--	**1.9**	**2**	--	<0.25	--	--	--	**7.1**	--	<0.4	<0.6	--	**1,700**	--	--
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-0423	04/19/2023	**92**	<6	<6	**92**	<6	<0.05	**1.4**	**0.37**	**0.11**	**180**	**--**	**1.9**	**1.7**	**--**	<0.1	**--**	**--**	**--**	**9.0**	**--**	<0.37	**0.6**	**--**	**1,700**	**--**	**--**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-1023	10/18/2023	**88**	<6	<6	**88**	<6	<0.05	**2.2**	<0.1 UJ	<0.1 UJ	**150**	**--**	**1.7**	**1.7**	**--**	<0.1	**--**	**--**	**--**	**7.9**	**--**	<0.4	<0.75	**--**	**1,600**	**--**	**--**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-0424	04/25/2024	**88**	<6	<6	**88**	<6	<0.05	**1.4**	<0.1	<0.1	**190 J**	**--**	**2.1**	**2.1**	**--**	<0.1	**--**	**--**	**--**	**11 J**	**--**	<0.55	<0.92	**--**	**1,500**	**--**	**--**
MW-70M	Supplementary	Moqui	CH-CCR-MW70M-1024	10/28/2024	**95.6 J**	--	--	**--**	--	<0.0539 UJ	**1.81 J**	**0.0596**	<0.05	**167**	**--**	**1.92**	**1.88**	**--**	<0.2J	**--**	**--**	**--**	**11.8**	**--**	<0.4	<0.8	**--**	**1,540**	**--**	**--**
W-301	Supplementary	Alluvial	CH-CCR-W301-12718	12/7/2018	**180**	<6.0	<6.0	**--**	**--**	**--**	**--**	**--**	**--**	**170**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**4.6**	**--**	<0.6	<0.7	**14**	**2,600**	**--**	**--**
W-301	Supplementary	Alluvial	CH-CCR-W301-21519	2/15/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	<0.4	**0.7**	**--**	**--**	**--**	**--**
W-301	Supplementary	Alluvial	CH-CCR-W301-41619	4/16/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-301	Supplementary	Alluvial	CH-CCR-W301-8919	8/9/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-301	Supplementary	Alluvial	CH-CCR-W301-102319	10/23/2019	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
W-301	Supplementary	Alluvial	CH-CCR-W301-0420	4/18/2020	**150**	<6	<6	**--**	**--**	<0.5	**3.1**	<0.03	<0.1	**160**	**--**	**1.8**	**1.7**	**--**	**17**	**--**	**--**	**--**	**9.6**	**--**	**--**	**--**	**--**	**4,100**	**--**	**2.9**
W-301	Supplementary	Alluvial	CH-CCR-W301-1020	10/22/2020	--	--	--	--	--	<0.5	**2.7**	**0.052 J**	**0.04 J**	**--**	**--**	**1.6**	**1.6**	**--**	**20**	--	--	--	--	--	<0.4	<0.8	--	--	--	**2.6**
W-301	Supplementary	Alluvial	CH-CCR-W301-0421	4/17/2021	**--**	**--**	**--**	**--**	**--**	<0.05	**2.9**	**0.10**	**0.082 J**	**--**	**--**	**1.6**	**1.6**	**--**	**20**	**--**	**--**	**--**	**--**	**--**	<0.4	<0.8	**--**	**--**	**--**	**--**
W-301	Supplementary	Alluvial	CH-CCR-W301-1021	10/28/2021	--	--	--	--	--	<0.05	**3.0**	<0.1	**0.039 J**	--	--	**1.5**	**1.5**	--	**16**	--	--	--	--	--	**0.5**	<0.6	--	--	--	--
W-301	Supplementary	Alluvial	CH-CCR-W301-0522	05/03/2022	**160**	<6	<6	**160**	<6	<0.05	**2.9**	**0.086 J**	**0.095 J**	**180**	--	**1.6**	**1.5**	**--**	**15**	**--**	**--**	**--**	**6.2**	--	<0.4	<0.6	--	**4,300**	**--**	--
W-301	Supplementary	Alluvial	CH-CCR-W301-1022	10/22/2022	**160**	<6	<6	**160**	<6	<0.05	**3.5**	**0.16**	**0.13**	**210**	--	**1.7**	**1.5**	--	**12**	--	--	--	**6**	--	<0.4	<0.7	--	**4,000**	--	--
W-301	Supplementary	Alluvial	CH-CCR-W301-0423	04/18/2023	**160**	<6	<6	**160**	<6	<0.05	**3.4**	**0.19**	**0.13**	**200**	**--**	**1.5**	**1.4**	**--**	**13**	**--**	**--**	**--**	**16**	**--**	<0.55	<0.6	**--**	<0.5	**--**	--

Table C-6
Groundwater Sampling Results for the BAP Monitoring Wells - Additional Analyses

					Additional Analyses																										
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium	Sodium	Total Organic Carbon
Filtered:					N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
BAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																											
W-301	Supplementary	Alluvial	CH-CCR-W301-1023	10/19/2023	**160**	<6	<6	**160**	<6	<0.05	**2.9**	<0.1 UJ	<0.1 UJ	**180**	--	**1.5**	**1.4**	--	**13**	--	--	--	**6.2**	--	<0.38	<0.75	--	**4,400**	--	--
W-301	Supplementary	Alluvial	CH-CCR-W301-0424	04/23/2024	**160**	<6	<6	**160**	<6	<0.05	**1.5**	**0.15**	**0.1 J**	**210**	--	**1.7**	**1.4**	--	**13**	--	--	--	**19**	--	<0.53	<0.92	--	**5,100**	--	--
W-301	Supplementary	Alluvial	CH-CCR-W301-1024	10/24/2024	**--**	--	--	**--**	--	<0.0539	**2.97**	**0.238**	<0.05	**164**	--	**1.48**	**1.51**	--	**11.2**	--	--	--	**13**	--	<0.4	<0.8	--	**3,440**	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-12718	12/7/2018	**140**	<6.0	<6.0	**--**	--	--	--	--	--	**120**	--	--	--	--	--	--	--	--	**5.5**	--	<0.6	<0.7	**12**	**1,800**	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-21519	2/15/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**0.7**	--	--	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-41719	4/17/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-8919	8/9/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-102319	10/23/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-0420	4/17/2020	**130**	<6.0	<6.0	**--**	--	<0.5	**1.2 J**	**0.40**	**0.14**	**120**	--	**0.022 J**	**0.027**	--	<0.5	--	--	--	**6.5**	--	--	--	--	**1,800**	--	**0.64 J**
W-302	Supplementary	Alluvial	CH-CCR-W302-1020	10/23/2020	--	--	--	--	--	<0.5	**0.75**	**0.19**	**0.12**	**--**	--	**0.057**	**0.048**	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	**0.57**
W-302	Supplementary	Alluvial	CH-CCR-W302-0421	4/17/2021	**--**	--	--	**--**	--	<0.05	**0.83**	**0.18**	**0.059 J**	**--**	--	**0.053**	**0.058**	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-1021	10/30/2021	--	--	--	--	--	<0.05	**0.77**	<0.16	**0.063 J**	--	--	**0.1**	**0.098**	--	<0.25	--	--	--	--	--	**0.6**	<0.6	--	--	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-0522	5/11/2022	**140**	<6	<6	**140**	<6	<0.05	**0.88**	**0.13**	**0.21**	**160**	--	**0.18**	**0.17**	--	**3.7**	--	--	--	**5**	--	<0.4	<0.6	--	**2,000**	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-1022	10/25/2022	**140**	<6	<6	**140**	<6	<0.05	**1.6**	**0.12**	<0.1	**170**	--	**0.051**	**0.042**	--	<0.25	--	--	--	**4.2**	--	<0.4	<0.6	--	**2,100**	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-0423	04/24/2023	**140**	<6	<6	**140**	<6	<0.05	**0.87 J**	<0.5	<0.1	**160**	--	<0.05	**0.016**	--	<0.1	--	--	--	**5.3**	--	<0.43	**1.0**	--	**2,000**	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-1023	10/12/2023	**140**	<6	<6	**140**	<6	<0.05	**1.2**	**0.23**	<0.1	**160**	--	**0.053**	<0.01	--	<0.1	--	--	--	**6.0**	--	**0.6**	<0.72	--	**2,000**	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-0424	04/19/2024	**140**	<6	<6	**140**	<6	<0.05	**1.1**	**0.14**	<0.1	**170**	--	<0.01	<0.01	--	<0.1	--	--	--	**9.0**	--	<0.43	<0.75	--	**2,100**	--	--
W-302	Supplementary	Alluvial	CH-CCR-W302-1024	10/23/2024	**--**	--	--	**--**	--	<0.0539	**1.23**	**0.0694**	<0.05	**159**	--	**0.0267**	**0.0096**	--	<0.2	--	--	--	**9.3**	--	**0.6**	<0.8	--	**1,850**	--	--
W-303	Supplementary	Moqui	--	4/18/2020	**150**	<6.0	<6.0	**--**	--	--	**1.4**	--	<0.1	**190**	--	<0.50	**0.023**	--	<0.5	--	--	--	**6.8**	--	--	--	--	**2,100**	--	**1.4**
W-303	Supplementary	Moqui	CH-CCR-W303-1020	10/22/2020	**--**	--	--	**--**	--	<0.5	**1.2**	**0.14**	**0.052 J**	**--**	--	**0.1**	**0.11**	--	<0.25	--	--	--	--	--	<0.4	**0.8**	--	--	--	**1.1**
W-303	Supplementary	Moqui	CH-CCR-W303-0421	4/17/2021	**--**	--	--	**--**	--	<0.05	**1.4**	**0.17**	**0.11**	**--**	--	**0.99**	**0.88**	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	--
W-303	Supplementary	Moqui	CH-CCR-W303-1021	10/28/2021	--	--	--	--	--	**0.04 J**	**1.6**	<0.1	**0.062 J**	--	--	**3.0**	**3.1**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
W-303	Supplementary	Moqui	CH-CCR-W303-1022	10/22/2022	**190**	<6	<6	**190**	<6	**0.068**	**2.6**	**0.12**	<0.1	**270**	--	**3**	**2.9**	--	<0.25	--	--	--	**3.9**	--	**0.6**	**0.8**	--	**2,400**	--	--
W-303	Supplementary	Moqui	CH-CCR-W303-0522	05/04/2022	**170**	<6	<6	**170**	<6	<0.05 J	**1.5**	**0.15**	<0.1	**200**	--	**1.2**	**1.1**	--	**0.37**	--	--	--	**3.9**	--	<0.4	<0.6	--	**550**	--	--
W-303	Supplementary	Moqui	CH-CCR-W303-0423	04/18/2023	**160**	<6	<6	**160**	<6	<0.05 UJ	**1.7**	**0.17**	<0.1	**240**	--	**0.23**	**0.024**	--	**0.11**	--	--	--	**5.7**	--	<0.54	**1.1**	--	**2,600**	--	--
W-303	Supplementary	Moqui	CH-CCR-W303-1023	10/19/2023	**190**	<6	<6	**190**	<6	<0.05	**1.6**	<0.1 UJ	<0.1 UJ	**220**	--	**0.66**	**0.66**	--	<0.1	--	--	--	**4.4**	--	<0.38	<0.75	--	**2,600**	--	--
W-303	Supplementary	Moqui	CH-CCR-W303-0424	04/23/2024	**160**	<6	<6	**160**	<6	<0.05	**3**	**0.21**	<0.1	**250**	--	**0.26**	**0.020**	--	<0.1	--	--	--	**15 J**	--	<0.53	<0.92	--	**2,600 J**	--	--
W-303	Supplementary	Moqui	CH-CCR-W303-1024	10/24/2024	**--**	--	--	**--**	--	<0.0539	**2.05**	**0.172**	<0.05	**194**	--	**0.491**	**0.12**	--	<0.2	--	--	--	**8.76**	--	<0.4	<0.8	--	**2,070**	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-12718	12/7/2018	**140**	<6.0	<6.0	**--**	--	--	--	--	--	**100**	--	--	--	--	--	--	--	--	**5.8**	--	<0.5	<0.7	**9.6**	**2,100**	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-21519	2/15/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-41619	4/16/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-8819	8/8/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-304	Supplementary	Alluvial	*DUP* CH-CCR-FD02-102419	10/24/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-102419	10/24/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-0420	4/17/2020	**140**	<6	<6	**--**	--	<0.5	**0.97**	**0.11**	<0.1	**94**	--	**0.89**	**0.82**	--	<0.5	--	--	--	**5.0**	--	--	--	--	**2,100**	--	**0.70**
W-304	Supplementary	Alluvial	CH-CCR-W304-1020	10/23/2020	--	--	--	--	--	<0.5	**1.3**	**0.2**	**0.18**	**--**	--	**1.2**	**1.1**	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	**0.62**
W-304	Supplementary	Alluvial	CH-CCR-W304-0421	4/18/2021	**--**	--	--	**--**	--	<0.05	**0.70**	**0.15**	**0.10**	**--**	--	**0.81**	**0.81**	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-1021	10/28/2021	--	--	--	--	--	<0.05	**0.82**	<0.19	**0.11**	--	--	**0.98**	**1.0**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-0522	5/11/2022	**120**	<6	<6	**120**	<6	<0.05	**0.76**	**0.25**	**0.25**	**100**	--	**1.9**	**1.9**	--	**4.0**	--	--	--	**4.8**	--	<0.4	<0.6	--	**1,900**	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-1022	10/25/2022	**120**	<6	<6	**120**	<6	<0.05	**1.6**	**0.21**	**0.17**	**110**	--	**2.3**	**2.2**	--	<0.25	--	--	--	**3.9**	--	<0.4	<0.6	--	**2,100**	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-0423	04/24/2023	**120**	<6	<6	**120**	<6	<0.05	**0.72**	**0.30**	**0.25**	**120**	--	**3.0**	**3.0**	--	<0.1	--	--	--	**4.4**	--	<0.44	<0.58	--	**1,800**	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-1023	10/12/2023	**110**	<6	<6	**110**	<6	<0.05	**0.84**	**0.37**	**0.26**	**110**	--	**2.9**	**2.9**	--	<0.1	--	--	--	**6.0**	--	<0.4	**1.3**	--	**1,900**	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-0424	04/22/2024	**110**	<6	<6	**110**	<6	<0.05	**1.1**	**0.49**	**0.44**	**140**	--	**3.8**	**3.7**	--	<0.1	--	--	--	**11**	--	<0.52	<0.92	--	**2,200**	--	--
W-304	Supplementary	Alluvial	CH-CCR-W304-1024	10/23/2024	**--**	--	--	**--**	--	<0.0539	**1.13**	**0.165**	**0.141**	**105**	--	**3.0**	**2.98**	--	<0.2	--	--	--	**9.3**	--	<0.4	<0.8	--	**1,720**	--	--
W-307	Supplementary	Alluvial	CH-CCR-W307-12818	12/8/2018	**100**	<6.0	<6.0	**--**	--	--	--	--	--	**150**	--	--	--	--	--	--	--	--	**5.4**	--	<0.5	<0.7	**13**	**1,700**	--	--
W-307	Supplementary	Alluvial	CH-CCR-W307-21519	2/15/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.6	--	--	--	--
W-307	Supplementary	Alluvial	CH-CCR-W307-41619	4/16/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307	Supplementary	Alluvial	CH-APP-W307-62519	6/25/2019	**--**	--	--	**--**	--	--	--	--	--	**140**	--	--	--	<0.10	<0.10	<0.10	<0.10	<0.50	--	--	--	--	--	**1,700**	--	--
W-307	Supplementary	Alluvial	CH-CCR-W307-8819	8/8/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307	Supplementary	Alluvial	CH-CCR-W307-102419	10/24/2019	**--**	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307	Supplementary	Alluvial	CH-CCR-W307-0420	4/17/2020	**110**	<6	<6	**--**	--	<0.5	**1.6**	**0.16**	<0.1	**130**	--	**0.030 J**	**0.027**	--	<0.5	--	--	--	**4.2**	--	--	--	--	**1,600**	--	**1.3**
W-307	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1020	10/23/2020	--	--	--	--	--	<0.5	**1.2**	**0.18**	**0.17**	**--**	--	**0.042**	**0.041**	--	<0.25	--	--	--	--	--	<0.4	<0.8	--	--	--	**1.1 J**
W-307	Supplementary	Alluvial	CH-CCR-W307-0421	4/18/2021	**--**	--	--	**--**	--	<0.05	**1.2**	**0.19**	**0.16**	**--**	--	**0.040**	**0.040**	--	<0.25	--	--	--	--	--	<0.4	<0.7	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1021	10/28/2021	--	--	--	--	--	**0.058**	**1.3**	<0.33	**0.22**	--	--	**1.8**	**1.9**	--	<0.25	--	--	--	--	--	<0.4	<0.6	--	--	--	--
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1021	10/28/2021	--	--	--	--	--	<0.05	<1.3	**0.32**	**0.22**	--	--	**1.8**	**1.9**	--	<0.25	--	--	--	--	--	<0.3	<0.6	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CRT-W307R-1221	12/1/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CRT2-W307R-1221	12/1/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CRT3-W307R-1221	12/2/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CRT4-W307R-1221	12/2/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-307R	Supplementary	Alluvial	CH-CCR-W307R-0522	5/12/2022	**150**	<6	<6	**150**	<6	**0.045 J**	**1.1 J**	<0.12	**0.13**	**160**	--	**2.3**	**2.3**	--	<0.25 UJ	--	--	--	**4.4**	--	<0.4	<0.6	--	**1,900**	--	--
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD04-0522	5/12/2022	**150**	<6	<6	**150**	<6	<0.05	**1.2**	**0.11**	<0.12	**160**	--	**2.3**	**2.4**	--	**3.3 J**	--	--	--	**4.2**	--	<0.3	**0.8**	--	**2,000**	--	--
W-307R	Supplementary	Alluvial	CH-CCR-SS06-0522	5/12/2022	**164**	<20	<20	**164**	--	<0.2	**1.1 J**	**0.666 J**	<0.75	**156**	--	**2.38**	**2.44**	--	<0.1	--	--	--	**6.73**	--	--	--	--	**1,840**	--	--
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1022	10/25/2022	**130**	<6	<6	**130**	<6	<0.05	**1.7**	**0.15**	**0.14**	**170**	--	**2.6**	**2.5**	--	<0.25	--	--	--	**3.4**	--	<0.4	<0.6	--	**2,200**	--	--
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-1022	10/25/2022	**130**	<6	<6	**130**	<6	<0.05	**2**	**0.15**	**0.13**	**170**	--	**2.6**	**2.5**	--	<0.25	--	--	--	**3.7**	--	<0.4	<0.6	--	**2,000**	--	--
W-307R	Supplementary	Alluvial	CH-CCR-W307R-0423	04/24/2023	**120**	<6	<6	**120**	<6	<0.05	**1.1**	<0.5	<0.1	**150**	--	**2.5**	**2.5**	--	<0.1	--	--	--	**4.5**	--	<0.44	<0.58	--	**1,900**	--	--
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-0423	04/24/2023	**120**	<6	<6	**120**	<6	**0.055**	**1.1**	<0.1	<0.1	**160**	--	**2.5**	**2.5**	--	<0.1	--	--	--	**3.3**	--	<0.44	**0.9**	--	**1,700**	--	--
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1023	10/12/2023	**110**	<6	<6	**110**	<6	<0.05	**1.2**	<0.1	<0.1	**140**	--	**2.2**	**2.0**	--	<0.1	--	--	--	**6.8**	--	<0.4	**1.0**	--	**1,700**	--	--
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-1023	10/12/2023	**110**	<6	<6	**110**	<6	<0.05	**1.3**	<0.1	<0.1	**150**	--	**2.2**	**2.1**	--	<0.1	--	--	--	**6.7**	--	<0.4	<0.72	--	**1,700**	--	--
W-307R	Supplementary	Alluvial	CH-CCR-W307R-0424	04/22/2024	**99**	<6	<6	**99**	<6	<0.05	**1.3**	**0.23**	**0.17**	**160**	--	**0.97**	**0.94**	--	**0.16**	--	--	--	**8.2**	--	<0.51	<0.92	--	**2,000**	--	--
W-307R	Supplementary	Alluvial	*DUP* CH-CCR-FD03-0424	04/22/2024	**99**	<6	<6	**99**	<6	<0.05	**1.3**	**0.21**	**0.18**	**160**	--	**1.0**	**0.93**	--	<0.1	--	--	--	**7.6**	--	<0.51	<0.92	--	**2,100**	--	--
W-307R	Supplementary	Alluvial	CH-CCR-W307R-1024	10/22/2024	**--**	--	--	**--**	--	<0.0539	**1.08**	**0.187**	**0.132**	**139**	--	**1.41**	**1.26**	--	<0.2	--	--	--	**8.18**	--	<0.4	<0.8	--	**1,750**	--	--

Table C-6
Groundwater Sampling Results for the BAP Monitoring Wells - Additional Analyses

					Additional Analyses																										
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium	Sodium	Total Organic Carbon
Filtered:					N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
BAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																										
W-307R	Supplementary	Alluvial	CH-CCR-FD06-1024	10/22/2024	--	--	--	--	--	<0.0539	**1.09**	**0.183**	**0.132**	**140**	--	**1.43**	**1.28**	--	<0.2	--	--	--	**8.33**	--	**0.9**	**1.1**	--	**1,670**	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-12818	12/8/2018	**160**	<6.0	<6.0	--	--	--	--	--	--	**120**	--	--	--	--	--	--	--	--	**7.7**	--	<0.5	<0.7	**12**	**1,900**	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-21519	2/15/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.6	<0.7	--	--	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-41619	4/16/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-308	Supplementary	Alluvial	CH-APP-W308-62519	6/25/2019	--	--	--	--	--	--	--	--	--	**120**	--	--	--	**0.20**	**0.20**	<0.10	**0.20**	<0.50	--	--	--	--	--	**2,100**	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-8819	8/8/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-102419	10/24/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-0420	4/17/2020	**170**	<6	<6	--	--	<0.5	**1.2**	**0.031 J**	<0.1	**120**	--	**0.072**	**0.073**	--	<0.5	--	--	--	**6.4**	--	--	--	--	**2,100**	--	**1.0**
W-308	Supplementary	Alluvial	CH-CCR-W308-1020	10/24/2020	--	--	--	--	--	<0.5	**0.95**	**0.12**	**0.053 J**	--	--	**0.34**	**0.32**	--	**0.68**	--	--	--	--	--	<0.4	<0.8	--	--	--	**0.93**
W-308	Supplementary	Alluvial	CH-CCR-W308-0421	4/18/2021	--	--	--	--	--	<0.05	**1.1**	**0.071 J**	**0.049 J**	--	--	**0.19**	**0.19**	--	<0.25	--	--	--	--	--	<0.5	<0.7	--	--	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-1021	10/28/2021	--	--	--	--	--	<0.05	**1.2 J**	**0.20**	**0.18**	--	--	**0.38**	**0.38**	--	<0.25	--	--	--	--	--	**0.4**	**0.9**	--	--	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-0522	5/12/2022	**190**	<6	<6	**190**	<6	<0.05	**1.2**	**0.088 J**	**0.033 J**	**130**	--	**0.11**	**0.11**	--	**3.9**	--	--	--	**6.2**	--	<0.3	<0.6	--	**2,100**	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-1022	10/26/2022	**180**	<6	<6	**180**	<6	<0.05	**1.8**	**0.3**	<0.1	**140**	--	**0.16**	**0.15**	--	<0.25	--	--	--	**5.3**	--	<0.4	<0.6	--	**2,300**	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-0423	04/20/2023	**180**	<6	<6	**180**	<6	<0.05	**1.4**	**0.23**	**0.11**	**130**	--	**0.11**	**0.10**	--	**0.12**	--	--	--	**6.8**	--	<0.53	<0.6	--	**2,400**	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-1023	10/12/2023	**170**	<6	<6	**170**	<6	<0.05	**1.3**	<0.1	<0.1	**130**	--	**0.22**	**0.21**	--	<0.1	--	--	--	**8.0**	--	<0.4	<0.72	--	**2,100**	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-0424	04/22/2024	**180**	<6	<6	**180**	<6	<0.05	**1.3**	**0.18**	<0.1	**150**	--	**0.079**	**0.055**	--	<0.1	--	--	--	**10**	--	<0.5	**1.2**	--	**2,700**	--	--
W-308	Supplementary	Alluvial	CH-CCR-W308-1024	10/22/2024	--	--	--	--	--	<0.0539	**1.21**	**0.504**	**0.0698**	**129**	--	**0.269**	**0.238**	--	<0.2	--	--	--	**11.0**	--	<0.4	<0.8	--	**2,240**	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-12818	12/8/2018	**55**	<6.0	<6.0	--	--	--	--	--	--	**34**	--	--	--	--	--	--	--	--	**12**	--	<0.5	<0.7	**22**	**1,700**	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-21519	2/15/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-41619	4/16/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-309	Supplementary	Alluvial	CH-APP-W309-62519	6/25/2019	--	--	--	--	--	--	--	--	--	**88**	--	--	--	**2.7**	**2.7**	<0.10	**2.7**	<0.50	--	--	--	--	--	**1,900**	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-8819	8/8/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-102419	10/24/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-0520	5/4/2020	**160**	<6	<6	--	--	<0.5	<1	<0.1	<0.1	**86**	--	**0.83**	**0.83**	--	**2.6**	--	--	--	**8.9**	--	<0.4	<0.8	--	**1,800**	--	<1
W-309	Supplementary	Alluvial	CH-CCR-W309-1020	10/24/2020	--	--	--	--	--	<0.5	**0.54**	**0.11**	**0.038 J**	--	--	**0.56**	**0.55**	--	**3.2**	--	--	--	--	--	<0.4	<0.8	--	--	--	**0.47 J**
W-309	Supplementary	Alluvial	CH-CCR-W309-0421	4/18/2021	--	--	--	--	--	<0.05	**0.68**	**0.11**	**0.076 J**	--	--	**0.60**	**0.57**	--	**2.8**	--	--	--	--	--	<0.4	<0.7	--	--	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-1021	10/27/2021	--	--	--	--	--	<0.05	**0.83**	**0.059 J**	**0.04 J**	--	--	**0.41**	**0.41**	--	**2.8**	--	--	--	--	--	**0.4**	<0.6	--	--	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-0522	5/12/2022	**170**	<6	<6	**170**	<6	<0.05	**0.76**	**0.068 J**	<0.1	**91**	--	**0.44**	**0.43**	--	**5.9**	--	--	--	**4.9**	--	<0.3	**0.7**	--	**1,900**	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-0423	04/20/2023	**170**	<6	<6	**170**	<6	<0.05	**0.90**	**0.15**	<0.1	**100**	--	**0.60**	**0.43**	--	**2.7**	--	--	--	**5.9**	--	<0.52	<0.6	--	**2,100**	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-1023	10/12/2023	**170**	<6	<6	**170**	<6	<0.05	**0.86**	<0.1	<0.1	**90**	--	**0.46**	**0.45**	--	**2.9**	--	--	--	**6.7**	--	<0.4	<0.72	--	**1,800**	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-0424	04/22/2024	**170**	<6	<6	**170**	<6	<0.05	**0.94**	**0.15**	0.1	**110**	--	**0.55**	**0.48**	--	**2.9**	--	--	--	**9.2**	--	<0.5	<0.92	--	**2,200**	--	--
W-309	Supplementary	Alluvial	CH-CCR-W309-1224	12/13/2024	**184**	--	--	**152**	--	**0.0539**	**1.36**	**<0.1**	<0.1	**89.3**	--	**0.411**	**0.371**	--	**2.72**	--	--	--	**7.3**	--	0.7	1	--	**1,890**	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-33019	3/30/2019	**190**	<6.0	<6.0	--	--	--	--	--	--	**110**	--	--	--	--	--	--	--	--	**7.1**	--	--	--	--	**650**	--	--
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD03-41719	4/17/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-41719	4/17/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD01-8819	8/8/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-8919	8/9/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-102419	10/24/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-0420	4/16/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-1020	10/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.8	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-0421	4/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-1021	10/21/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**	<0.6	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-0422	4/26/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**	**0.7**	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-1022	10/19/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.6**	<0.7	--	--	--	--
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1022	10/19/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**	<0.7	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-1022-SD	10/19/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**	**1.2**	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-0423	04/14/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.52	**1.2**	--	--	--	--
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-0423	04/14/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.51	<0.6	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-1023	10/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**	<0.72	--	--	--	--
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-1023	10/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.5**	<0.72	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-0424	04/17/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.44	<0.75	--	--	--	--
W-317	Supplementary	Alluvial	*DUP* CH-CCR-FD04-0424	04/17/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.44	<0.75	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-W317-1024	10/17/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.4	**1.4**	--	--	--	--
W-317	Supplementary	Alluvial	CH-CCR-FD04-1024	10/17/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**	<0.8	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-01052012	1/5/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.0	--	<2.0	<5.0	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-11072012	11/7/2012	**54**	<6.0	<6.0	--	--	--	--	--	--	**340**	--	--	--	<0.20	--	<0.20	<1.4	**0.60**	**30**	--	--	--	--	**2,000**	--	--
BAP	Supplementary	Surface Pond	CH-BAP-1172012	11/7/2012	**140**	<6.0	<6.0	--	--	--	--	--	--	**310**	--	--	--	--	--	--	--	--	**26**	--	--	--	--	**2,200**	--	--
BAP	Supplementary	Surface Pond	CH-BAP-031313	3/13/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	<0.8	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-031313_C26660-1	3/13/2013	**65.3**	<5.0	<5.0	--	--	--	--	--	--	**289**	--	--	--	--	--	--	<1.8	**0.62**	**28.3**	--	--	--	--	**1,710**	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0913	9/18/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	<0.8	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0913_C29829-10	9/18/2013	**52**	**8.0**	<5.0	--	--	--	--	--	--	**287**	--	--	--	--	--	--	--	**3.2**	**26.5**	--	--	--	--	**768**	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0514	5/22/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.8	--	<0.8	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0514_C34218-6	5/22/2014	**97**	<5.0	--	--	--	--	--	--	--	**375**	--	--	--	--	--	--	<1.8	<0.20	**32.8**	--	--	--	--	**1,830**	--	--
BAP	Supplementary	Surface Pond	CH-BAP-1014	10/13/2014	**63.1**	--	--	--	--	--	--	--	--	**331**	--	--	--	<0.10	<0.20	<0.10	**0.87**	**0.87**	**28.4**	--	--	--	--	**1,560**	--	--
BAP	Supplementary	Surface Pond	CH-BAP-0515	5/4/2015	**106**	<5.0	--	--	--	--	--	--	--	**288**	--	--	--	<0.10	<0.20	<0.10	<0.40	<0.20	**23.2**	--	--	--	--	**1,280**	--	--
BAP	Supplementary	Surface Pond	CH-APP-BP-1016	10/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.10	--	<0.10	--	**1.1**	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-APP-BAP-60717	6/7/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	--	**1.5**	**1.5**	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-APP-BAP-10617	10/6/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	<0.50	<0.50	**0.78**	**0.78**	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-CCR-BAP-33019	3/30/2019	**120**	<6.0	<6.0	--	--	--	--	--	--	**300**	--	--	--	--	--	--	--	--	**28**	--	--	--	--	**1,500**	--	--
BAP	Supplementary	Surface Pond	CH-APP-BAP-42919	4/29/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0421	4/16/2021	**120**	**46**	<6	--	--	<0.05	--	**0.77**	**0.73**	**300**	--	**0.064**	**0.065**	--	**0.14 J**	--	--	--	**30**	--	<0.4	<0.7	--	**1,400**	--	**2.5**

Table C-6
Groundwater Sampling Results for the BAP Monitoring Wells - Additional Analyses

					Additional Analyses																										
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium	Sodium	Total Organic Carbon
Filtered:					N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
BAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																										
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1021	10/31/2021	**150**	<6	<6	**150**	<6	<0.05	**1.9**	**0.93**	**0.054 J**	**290**	--	**0.13**	**0.12**	--	<0.25	--	--	--	**27**	--	--	--	--	**1,400**	--	**3.0**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0422	4/21/2022	**160**	**7.3**	<6	**170**	<6	<0.05	**2.4**	**0.34**	<0.1	**270**	--	**0.060**	**0.049**	--	<0.25	--	--	--	**25**	--	--	--	--	**1,200**	--	**2.5**
BAP	Supplementary	Surface Pond	CH-CCR-SS07-0422	4/21/2022	**159**	**12.1 J**	<20	**171**	--	<0.2	**2.5 J**	<0.75	<0.75	**232**	--	**1.24**	<0.25	--	<0.1	--	--	--	**15.4**	--	--	--	--	**1,550**	--	**2.6 J**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1022	10/26/2022	**110**	**15**	<6	**120**	**7.7**	<0.05	**2.5**	**1.3**	<0.1	**320**	--	**0.11**	**0.014**	--	<0.25	--	--	--	**30**	--	--	--	--	**1,600**	--	**2.9**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0423	04/26/2023	**130**	<6	<6	**130**	<6	<0.05	**2.0**	**0.66**	<0.1	**280**	--	**0.056**	**0.028**	--	<0.1	--	--	--	**26**	--	--	--	--	**1,300**	--	**2.2**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1023	10/13/2023	**100**	<6	<6	**100**	<6	**0.089**	**1.9**	**14**	<0.1	**310**	--	**0.22**	**0.045**	--	<0.1	--	--	--	**32**	--	--	--	--	**1,400**	--	**1.8**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-0424	05/01/2024	**140**	<6	<6	**140**	<6	**<0.05**	**2.1**	**0.21**	<0.1	**270**	--	**0.14**	**0.11**	--	<0.1	--	--	--	**30**	--	--	--	--	**2,000**	--	**2.9**
BAP	Supplementary	Surface Pond	CH-CCR-BAP-1024	11/14/2024	**135**	<20	--	**128**	--	<0.0539	<1	**0.207**	<0.05	**263**	--	**0.13**	**0.12**	--	<0.2	--	--	--	**31**	--	--	--	--	**1,460**	--	**1.81**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0421	4/17/2021	**150**	<6	<6	**--**	**--**	**0.077**	**--**	**0.77**	**0.71**	**280**	--	**2.9**	**3.0**	--	<0.25	--	--	--	**17**	--	<0.4	<0.7	--	**2,000**	--	**1.4**
BAP Toe Drain	Supplementary	Seepage	*DUP* CH-CCR-FD04-0421	4/17/2021	**160**	<6	<6	**--**	**--**	**0.075**	**--**	**0.68**	**0.62**	**280**	--	**2.8**	**2.8**	--	<0.25	--	--	--	**17**	--	<0.4	<0.7	--	**2,100**	--	**1.3**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1021	10/30/2021	**160**	<6	<6	**160**	<6	**0.056**	**1.6**	**1.0**	**0.18**	**290**	--	**3.7**	**3.6**	--	<0.25	--	--	--	**15**	--	--	--	--	**1,900**	--	**1.6**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0422	4/21/2022	**160**	<6	<6	**160**	<6	**0.082**	**1.3**	**0.57**	**0.22**	**260**	--	**2.1**	**2.1**	--	<0.25	--	--	--	**14**	--	--	--	--	**1,800**	--	**1.3**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1022	10/27/2022	**170**	<6	<6	**170**	<6	**0.087**	**2.6 J**	**0.65**	**0.11**	**300**	--	**3.2**	**3.2**	--	<0.25	--	--	--	**15**	--	--	--	--	**2,100**	--	**1.7 J**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0423	04/26/2023	**160**	<6	<6	**160**	<6	**0.11**	**1.3**	**0.65**	**0.19**	**290**	--	**2.7**	**2.6**	--	<0.1	--	--	--	**14**	--	--	--	--	**1,700**	--	**1.3**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1023	10/24/2023	**150**	<6	<6	**150**	<6	**0.088**	**1.2**	**0.56**	<0.1	**260**	--	**3.0**	**3.0**	--	<0.1	--	--	--	**16**	--	--	--	--	**1,700**	--	**1.1**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-0424	05/28/2024	**130**	<6.0	<6.0	**130**	<6.0	**0.091**	**--**	**0.86**	--	**260**	--	**2.1**	**--**	--	<0.1	--	--	--	**22**	--	--	--	--	**1,700**	--	**5.3**
BAP Toe Drain	Supplementary	Seepage	CH-CCR-BAPTD-1024	11/14/2024	**136**	<20	--	**--**	--	**0.091 J**	<1	**0.16**	<0.05	**234**	--	**1.29**	**1.21**	--	<0.2	--	--	--	**20.1**	--	--	--	--	**1,640**	--	<1
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0421	4/16/2021	**83**	<6	<6	**--**	**--**	**0.094**	**--**	**0.16**	**0.12**	**260**	--	**3.1**	**3.0**	--	**0.15 J**	--	--	--	**18**	--	<0.4	<0.8	--	**1,700**	--	**1.7**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-1021	10/30/2021	**74**	<6	<6	**74**	<6	**0.061**	**1.2**	**0.059 J**	**0.051 J**	**250**	--	**2.0**	**2.1**	--	**0.2 J**	--	--	--	**15**	--	--	--	--	**1,500**	--	<1.1
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0422	4/21/2022	**78**	<6	<6	**78**	<6	**0.056**	**1.0**	<0.1	<0.1	**240**	--	**1.2**	**1.1**	--	**0.29**	--	--	--	**15**	--	--	--	--	**1,500**	--	**1.0**
Petroglyph	Supplementary	Seepage	CH-CCR-SS08-0422	4/21/2022	**81.7**	<20	<20	**81.7**	--	<0.2	<5	0.379 J	<0.75	**249**	--	**0.078 J**	**1.16 J**	--	**0.294**	--	--	--	**23.8**	--	--	--	--	**1,240**	--	<5
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-1022	10/27/2022	**86**	<6	<6	**86**	<6	**0.07**	**2.3 J**	<0.1	<0.1	**270**	--	**2.2**	**2.2**	--	**0.38**	--	--	--	**16**	--	--	--	--	**1,700**	--	**0.91 J**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0423	04/26/2023	**82**	<6	<6	**82**	<6	**0.079 J**	**0.95**	**0.17**	<0.1	**260**	--	**1.3**	**1.0**	--	**0.33**	--	--	--	**14**	--	--	--	--	**1,400**	--	**0.88**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-1023	10/24/2023	**85**	<6	<6	**85**	<6	**0.089**	**1.4**	**0.23**	<0.1	**250**	--	**1.1**	**1.1**	--	**0.31**	--	--	--	**26**	--	--	--	--	**1,600**	--	**1.2**
Petroglyph	Supplementary	Seepage	CH-CCR-Petroglyph-0424	05/01/2024	**81**	<6	<6	**81**	<6	**0.052**	**1.7**	**0.11**	<0.1	**250**	--	**1.4**	**1.4**	--	**0.44**	--	--	--	**21**	--	--	--	--	**2,100**	--	**1.3**
Petroglyph	Supplementary	Seepage	CH-CCR-PETRO-1024	11/13/2024	**82.8**	<20	--	**--**	--	**0.117**	<20	<0.05	<0.05	**234**	--	**1.64**	**1.67**	--	**0.41**	--	--	--	**16.8**	--	--	--	--	**1,480**	--	<1
Tanner Wash Seep	Supplementary	Seepage	CH-TANNERS-0520	5/8/2020	**76**	<6	<6	--	--	<0.5	--	**0.73**	--	**260**	--	**1.7**	--	--	<0.5	--	--	--	**20**	--	--	--	--	**1,600**	--	**1.0**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TanWash-0421	4/16/2021	**90**	<6	<6	**--**	**--**	**0.16**	**--**	**2.0**	**1.8**	**300**	--	**2.3**	**2.2**	--	<0.25	--	--	--	**21**	--	<0.4	<0.8	--	**1,800**	--	**1.3**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TanWash-1021	10/30/2021	**81**	<6	<6	**81**	<6	**0.15**	**1.3**	**1.9**	**0.36**	**280**	--	**2.8**	**2.6**	--	<0.25	--	--	--	**16**	--	--	--	--	**1,600**	--	**1.2**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-0422	4/21/2022	**98**	<6	<6	**98**	<6	**0.13**	**1.2**	**0.72**	**0.26**	**270**	--	**1.5**	**1.5**	--	<0.25	--	--	--	**16**	--	--	--	--	**1,600**	--	**1.1**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-1022	10/27/2022	**92**	<6	<6	**92**	<6	**0.19**	**1.9**	**2.8**	**0.15**	**290**	--	**5.6**	**4.2**	--	<0.25	--	--	--	**17**	--	--	--	--	**1,900**	--	<2
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-0423	04/26/2023	**86**	<6	<6	**86**	<6	**0.056**	**0.98**	**1.5**	**0.12**	**280**	--	**1.5**	**1.3**	--	**0.24**	--	--	--	**16**	--	--	--	--	**1,400**	--	**1.0**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-1023	10/24/2023	**80**	<6	<6	**80**	<6	**0.079**	**1.0**	**0.75**	<0.1	**280**	--	**1.8**	**1.5**	--	**0.14**	--	--	--	**18**	--	--	--	--	**1,500**	--	**0.92**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TannerWash-0424	05/01/2024	**81**	<6	<6	**81**	<6	**0.31**	**3.1**	<0.1	<0.1	**260**	--	**3.4**	**3.4**	--	**0.17**	--	--	--	**20**	--	--	--	--	**1,900**	--	**2.9**
Tanner Wash Seep	Supplementary	Seepage	CH-CCR-TANNER-1024	11/13/2024	**82.4**	<20	--	**150**	--	<0.0539	<20	<0.05	<0.05	**250**	--	**1.73**	**1.74**	--	**0.476**	--	--	--	**17.8**	--	--	--	--	**1,380**	--	<1
TWX-03	Supplementary	Seepage	CH-CCR-P226A-0621	6/1/2021	**72**	<6	<6	--	--	**0.11**	**--**	**0.097 J**	**0.066 J**	**250**	--	**4.5**	**4.2**	--	**0.16 J**	--	--	--	**17**	--	<0.5	<0.8	--	**1,700**	--	**0.95**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-1021	10/31/2021	**73**	<6	<6	**73**	<6	**0.15**	**1.2**	**0.20**	**0.071 J**	**240**	--	**3.6**	**3.6**	--	<0.25	--	--	--	**13**	--	--	--	--	**1,500**	--	<1.1
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-0522	05/03/2022	**78**	<6	<6	**78**	<6	**0.2**	**1.5**	**0.098 J**	<0.1	**230**	--	**4.2**	**4.3**	--	**0.25**	--	--	--	**14**	--	--	--	--	**1,600**	--	**1.1 J**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-1022	10/27/2022	**78**	<6	<6	**78**	<6	**0.12**	**2 J**	**0.23**	<0.1	**260**	--	**5.2**	**4.9**	--	<0.25	--	--	--	**17**	--	--	--	--	**1,800**	--	**1.2 J**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-0423	04/26/2023	**82**	<6	<6	**82**	<6	**0.29**	**0.97**	**0.84**	<0.1	**250**	--	**3.9**	**3.7**	--	<0.1	--	--	--	**13**	--	--	--	--	**1,600**	--	**0.97**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-1023	10/24/2023	**75**	<6	<6	**75**	<6	**0.29**	**0.95**	**0.33**	<0.1	**240**	--	**4.0**	**3.8**	--	<0.1	--	--	--	**17**	--	--	--	--	**1,400**	--	**1.8**
TWX-03	Supplementary	Seepage	CH-CCR-TWX3-0424	05/28/2024	**76**	<6.0	<6.0	**76**	<6.0	**0.16**	**--**	**2.7**	--	**260**	--	**4.7**	**--**	--	<0.1	--	--	--	**23**	--	--	--	--	**1,500**	--	**5.0**
TWX-03	Supplementary	Seepage	CH-CCR-TWX10-1024	11/13/2024	**89.3**	<20	--	**--**	--	<0.0539	<20	**0.182**	<0.05	**188**	--	**3.27**	**3.51**	--	<0.2	--	--	--	**13.1**	--	--	--	--	**1,490**	--	**1.3**
TWX-04	Supplementary	Seepage	CH-CCR-P226B-0621	6/1/2021	**74**	<6	<6	--	--	**0.41**	**--**	**0.056 J**	**0.06 J**	**250**	--	**3.7**	**3.7**	--	<0.25	--	--	--	**17**	--	<0.5	<0.8	--	**1,600**	--	**0.84**
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-1021	10/31/2021	**81**	<6	<6	**81**	<6	**0.44**	**1.5**	**1.0**	**0.09 J**	**230**	--	**6.7**	**7.1**	--	<0.25	--	--	--	**17**	--	--	--	--	**1,600**	--	**1.3**
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-0522	05/03/2022	**84**	<6	<6	**84**	<6	**0.2**	**1.4**	**0.28**	**0.084 J**	**230**	--	**4.2**	**4.2**	--	**0.37**	--	--	--	**15**	--	--	--	--	**1,500**	--	**1.1**
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-1022	10/27/2022	**96**	<6	<6	**96**	<6	**0.29**	**2.9 J**	**0.23**	<0.1	**250**	--	**4.5**	**4.4**	--	<0.25	--	--	--	**17**	--	--	--	--	**1,700**	--	**1.1 J**
TWX-04	Supplementary	Seepage	CH-CCR-TWX4-0424	05/01/2024	**67**	<6	<6	**67**	<6	**0.20**	**6.6**	**0.20**	<0.1	**250**	--	**4.8**	**5.1**	--	<0.1	--	--	--	**19**	--	--	--	--	**1,700**	--	**6.1**
TWX-04	Supplementary	Seepage	CH-CCR-TWX3-1024	11/13/2024	**87.4**	<20	--	**178**	--	**0.14**	<20	**1.63**	<0.05	**217**	--	**3.66**	**3.65**	--	<0.2	--	--	--	**14.7**	--	--	--	--	**1,540**	--	<1
TWX-05	Supplementary	Seepage	CH-CCR-P226C-0621	6/1/2021	**92**	<6	<6	--	--	**0.43**	**--**	**0.067 J**	**0.064 J**	**260**	--	**4.5**	**4.6**	--	<0.25	--	--	--	**16**	--	<0.4	<0.8	--	**1,700**	--	**0.88**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-1021	10/31/2021	**71**	<6	<6	**71**	<6	**0.42**	**1.2**	**0.42**	**0.14**	**240**	--	**4.0**	**3.8**	--	<0.25	--	--	--	**15**	--	--	--	--	**1,600**	--	<1
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-0522	05/03/2022	**83**	<6	<6	**83**	<6	**0.32**	**1.2**	**0.27**	<0.1	**240**	--	**4.0**	**3.6**	--	**0.48**	--	--	--	**15**	--	--	--	--	**1,600**	--	**1.0**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-1022	10/27/2022	**82**	<6	<6	**82**	<6	**0.36**	**2.6 J**	**0.35**	<0.1	**260**	--	**3.8**	**3.7**	--	<0.25	--	--	--	**16**	--	--	--	--	**1,700**	--	**1.5 J**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-0423	04/26/2023	**85**	<6	<6	**85**	<6	**0.32**	**1.0**	**0.16**	<0.1	**270**	--	**4.2**	**3.9**	--	<0.1	--	--	--	**15**	--	--	--	--	**1,500**	--	**1.0**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-1023	10/24/2023	**76**	<6	<6	**76**	<6	**0.33**	**0.81**	**0.55**	<0.1	**250**	--	**4.0**	**3.9**	--	<0.1	--	--	--	**17**	--	--	--	--	**1,500**	--	**0.92**
TWX-05	Supplementary	Seepage	CH-CCR-TWX5-0424	05/01/2024	**62**	<6	<6	**62**	<6	**0.38**	**0.93**	**0.23**	<0.1	**260**	--	**3.9**	**3.4**	--	<0.1	--	--	--	**18**	--	--	--	--	**2,400**	--	<1
TWX-05	Supplementary	Seepage	CH-CCR-TWX4-1024	11/13/2024	**103**	<20	--	**157**	--	**0.155**	<20	**1.17**	<0.05	**207**	--	**3.19**	**3.04**	--	<0.2	--	--	--	**16**	--	--	--	--	**1,570**	--	<1
TWX-06	Supplementary	Seepage	CH-CCR-P226D-0621	6/1/2021	**67**	<6	<6	--	--	**0.43**	**--**	**0.14**	**0.055 J**	**230**	--	**3.1**	**3.1**	--	<0.25	--	--	--	**12**	--	<0.4	<0.8	--	**1,700**	--	**0.91**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-1021	10/31/2021	**68**	<6	<6	**68**	<6	**0.17**	<1.1	**0.26**	**0.06 J**	**220**	--	**2.9**	**2.9**	--	<0.25	--	--	--	**10**	--	--	--	--	**1,600**	--	<1.1
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-0522	05/03/2022	**75**	<6	<6	**75**	<6	**0.12**	**1.3**	**0.19**	**0.11**	**220**	--	**3.2**	**3.0**	--	**0.54**	--	--	--	**11**	--	--	--	--	**1,600**	--	**1.1**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-1022	10/27/2022	**73**	<6	<6	**73**	<6	**0.1 J**	**1.8 J**	**0.43**	<0.1	**240**	--	**3.2**	**3**	--	<0.25	--	--	--	**10**	--	--	--	--	**1,700**	--	**1.2 J**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-0423	04/26/2023	**75**	<6	<6	**75**	<6	**0.085**	**1.0**	<0.1	<0.1	**250**	--	**3.4**	**3.2**	--	<0.1	--	--	--	**11**	--	--	--	--	**1,400**	--	**0.97 J**
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-1023	11/21/2023	**70**	<6	<6	**70**	<6	**0.33**	**1.3**	0.55	<0.1	**250**	--	**4.8**	**4.4**	--	<0.1	--	--	--	**12**	--	--	--	--	**2,200**	--	<1.00
TWX-06	Supplementary	Seepage	CH-CCR-TWX6-0424	05/01/2024	**70**	<6	<6	**70**	<6	<0.05	**1.1**	**0.45**	<0.1	**230**	--	**2.8**	**2.9**	--	**0.19**	--	--	--	**15**	--	--	--	--	**2,100**	--	**1.0**
TWX-06	Supplementary	Seepage	CH-CCR-TWX5-1024	11/13/2024	**86.1**	<20	--	**186**	--	**0.126**	<20	**0.0793**	<0.05	**223**	--	**3.09**	**2.89**	--	<0.2	--	--	--	**13**	--	--	--	--	**1,470**	--	<1
TWX-07	Supplementary	Seepage	CH-CCR-P226E-0621	6/1/2021	**70**	<6	<6	--	--	**0.30**	**--**	**3.0**	**0.059 J**	**190**	--	**11**	**8.4**	--	<0.25	--	--	--	**12**	--	<0.5	<0.8	--	**2,400**	--	**1.3**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-1021	10/31/2021	**76**	<6	<6	**76**	<6	**0.054**	<1.6	**5.9**	**1.9**	**210**	--	**9.0**	**5.9**	--	<0.25	--	--	--	**9.2**	--	--	--	--	**1,700**	--	**1.5**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-0522	05/03/2022	**77**	<6	<6	**77**	<6	**0.13**	**1.4**	**0.55**	**0.12**	**220**	--	**4.0**	**3.6**	--	**0.99**	--	--	--	**12**	--	--	--	--	**1,600**	--	**1**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-1022	10/27/2022	**85**	<6	<6	**85**	<6	**0.099**	**2 J**	**1.1**	**0.15**	**240**	--	**5.5**	**3.5**	--	<0.25	--	--	--	**15**	--	--	--	--	**1,700**	--	**1.1 J**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-0423	04/26/2023	**73**	<6	<6	**73**	<6	<0.05	**1.0**	**0.23**	**0.15**	**250**	--	**2.2**	**1.1**	--	**0.13**	--	--	--	**11**	--	--	--	--	**1,500**	--	**0.97**
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-1023	10/24/2023	**76**	<6	<6	**76**	<6	**0.32**	**0.91**	**0.21**	<0.1	**240**	--	**3.2**	**3.1**	--	<0.1	--	--	--	**16**	--	--	--	--	**1,500**	--	**0.78**

Table C-6
Groundwater Sampling Results for the BAP Monitoring Wells - Additional Analyses

					Additional Analyses																									
Constituent:					Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity as CaCO3	Alkalinity, Phenolphthalein	Ammonia (as N)	Dissolved Organic Carbon	Iron	Iron	Magnesium	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium	Sodium	Total Organic Carbon
Filtered:					N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N	Y	N
Units:					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
BAP GWPS					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well ID	**Designation**	**CCR Unit**	**Sample ID**	**Sample Date**																										
TWX-07	Supplementary	Seepage	CH-CCR-TWX7-0424	05/01/2024	**83**	<6	<6	**83**	<6	<0.05	**1.9**	**2.9**	<0.1	**220**	--	**1.4 J**	**3.8 J**	--	<0.1	--	--	--	**19**	--	--	--	--	**2,100**	--	**1.2**
TWX-07	Supplementary	Seepage	CH-CCR-TWX6-1024	11/13/2024	**91.7**	<20	--	**128**	--	**0.167**	<20	**0.162**	<0.05	**196**	--	**3.46**	**2.87**	--	<0.2	--	--	--	**15.2**	--	--	--	--	**1,620**	--	<1
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-1021	10/31/2021	**95**	<6	<6	**95**	<6	**0.13**	<1.4	**0.05 J**	**0.035 J**	**220**	--	**4.6**	**4.5**	--	<0.25	--	--	--	**12**	--	--	--	--	**1,600**	--	<1.2
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-0522	05/03/2022	**92**	<6	<6	**92**	<6	**0.16**	**1.4**	**0.064 J**	<0.1	**230**	--	**5.7**	**5.5**	--	**2.2**	--	--	--	**15**	--	--	--	--	**1,700**	--	**1.1**
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-1022	10/27/2022	**94**	<6	<6	**94**	<6	**0.12**	**1.8 J**	**0.16**	<0.1	**240**	--	**5.9**	**5.7**	--	<0.25	--	--	--	**15**	--	--	--	--	**1,700**	--	**1.2 J**
TWX-08	Supplementary	Seepage	CH-CCR-TWX8-0424	05/01/2024	**92**	<6	<6	**92**	<6	**0.053**	**1.5**	**1.4**	**0.15**	**220**	--	**6.5**	**6.0**	--	**0.12**	--	--	--	**17**	--	--	--	--	**1,800**	--	**1.6**
TWX-08	Supplementary	Seepage	CH-CCR-TWX7-1024	11/13/2024	**85.8**	<20	--	**119**	--	**0.109**	<1	<0.05	<0.05	**204**	--	**4.89**	**2.93**	--	<0.2	--	--	--	**19.3**	--	--	--	--	**1,680**	--	<1
TWX-09	Supplementary	Seepage	CH-CCR-P226G-0621	6/1/2021	**78**	<6	<6	--	--	**0.06**	**--**	**0.83**	**0.053 J**	**170**	**--**	**1.5 J**	**2.4 J**	**--**	<0.25	--	--	--	**7.8**	**--**	<0.5	<0.8	--	**2,300**	**--**	**1.3**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-1021	10/31/2021	**90**	<6	<6	**90**	<6	**0.17**	**1.2**	**0.81**	**0.20**	**230**	**--**	**3.7**	**3.8**	--	<0.25	--	--	--	**17**	**--**	--	--	--	**1,500**	**--**	**1.0**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-0522	05/03/2022	**110**	<6	<6	**110**	<6	**0.088**	**1.5**	**2.3**	**0.14**	**230**	--	**3.7**	**3.4**	**--**	**3.4**	**--**	**--**	**--**	**18**	--	--	--	--	**1,800**	**--**	**1.1**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-1022	10/27/2022	**120**	<6	<6	**120**	<6	**0.11**	**2.6 J**	**3.3**	<0.1	**240**	--	**3.5**	**3.3**	--	<0.25	--	--	--	**18**	--	--	--	--	**1,700**	--	**1.2 J**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-0423	04/26/2023	**130**	<6	<6	**130**	<6	**0.092**	**1.2**	**2.0**	**0.25**	**230**	**--**	**3.9**	**4.1**	**--**	<0.1	**--**	**--**	**--**	**17**	**--**	--	--	**--**	**1,600**	**--**	**1.1**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-1023	10/24/2023	**110**	<6	<6	**110**	<6	**0.080**	**1.1**	**3.6**	**0.58**	**230**	**--**	**6.8**	**7.8**	--	<0.1	--	--	--	**14**	--	--	--	--	**1,900**	--	**1.1**
TWX-09	Supplementary	Seepage	CH-CCR-TWX9-0424	05/01/2024	**130**	<6	<6	**130**	<6	**0.12**	**3.8**	**1.3**	<0.1	**220**	--	**4.1**	**4.2**	--	<0.1	--	--	--	**20**	--	--	--	--	**2,100**	--	**3.7**
TWX-09	Supplementary	Seepage	CH-CCR-TWX8-1024	11/13/2024	**101**	<20	--	**123**	--	**0.11**	<1	<0.05	<0.05	**205**	**--**	**3.03**	**2.83**	**--**	<0.2	--	--	--	**20.8**	--	--	--	--	**1,530**	--	<1
TWX-10	Supplementary	Seepage	CH-CCR-P226H-0621	6/1/2021	**75**	<6	<6	--	--	<0.05	--	**0.34**	**0.063 J**	**190**	**--**	**0.014**	**0.022**	**--**	<0.25	--	--	--	**8.2**	**--**	<0.5	<0.8	--	**2,500**	**--**	**1.4**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-1021	10/31/2021	**110**	<6	<6	**110**	<6	**0.39**	**3.3**	**1.2**	**0.93**	**210**	**--**	**5.1**	**4.7**	--	<0.25	--	--	--	**11**	**--**	--	--	--	**3,100**	**--**	**3.3**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-0522	05/03/2022	**73**	<6	<6	**73**	<6	<0.05	**1.9**	**0.17**	<0.1	**160**	--	**0.032**	**0.018**	**--**	**3.5**	**--**	**--**	**--**	**5.4**	--	--	--	--	**2,400**	**--**	**1.5**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-1022	10/27/2022	**80**	<6	<6	**80**	<6	<0.05	**2.5 J**	**0.23**	<0.1	**190**	--	**0.06**	**0.017**	--	<0.25	--	--	--	**4.7**	--	--	--	--	**2,600**	--	**1.9 J**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-0423	04/26/2023	**76**	<6	<6	**76**	<6	<0.05	**1.6**	**0.16**	<0.1	**180**	**--**	**0.036**	**0.017**	**--**	<0.1	**--**	**--**	**--**	**5.0**	**--**	--	--	**--**	**2,100**	**--**	**1.7**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-1023	10/24/2023	**74**	<6	<6	**74**	<6	<0.05	**1.4**	**0.29**	<0.1	**170**	**--**	**0.075**	**0.021**	**--**	**0.11**	**--**	**--**	**--**	**6.0**	**--**	--	--	--	**2,100**	**--**	**1.3**
TWX-10	Supplementary	Seepage	CH-CCR-TWX10-0424	05/01/2024	**86**	<6	<6	**86**	<6	<0.05	**2.4**	**9.2**	<0.1	**170**	**--**	**1.3**	**0.14**	**--**	**0.16**	**--**	**--**	**--**	**9.9**	**--**	--	--	--	**2,200**	**--**	**2.1**
TWX-10	Supplementary	Seepage	CH-CCR-TWX9-1024	11/13/2024	**81.1**	<20	--	**183**	--	**0.127**	<1	**1.19**	<0.05	**160**	**--**	**0.0827**	**0.0051**	**--**	<0.2	**--**	**--**	**--**	**10.8**	**--**	--	--	--	**2,370**	**--**	**1.5**

Notes:

GWPS exceedences are shown in red text.

Duplicate sample dates under the same location are either field duplicates or are instances of samples with multiple field/lab sample IDs on the same date.

[1] In previous documents TDX-3 is also known as BSX-01, TDX-4 is also known as BSX-02, and TDX-5 is also known as BSX-03.

Abbreviations and Data Qualifiers:

< = less than
BAP = Bottom Ash Pond
BTV = Background Threshold Value
CCR = Coal Combustion Residual
degrees C = degrees Celsius
GWPS = Groundwater Protection Standard
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table C-7
Groundwater Sampling Results for the BAP and FAP Surface Water - Appendix III Constituents

			Appendix III Constituents						
		Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
		Filtered:	N	N	N	N	N	N	N
		Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
CCR Unit	Sample Date	Sample ID							
BAP	01/05/2012	CH-BAP-01052012	**5**	--	**2,800**	< 4.0	**8.05**	**3,300**	**8,600**
BAP	11/07/2012	CH-BAP-11072012	**6.7**	**690**	**2,600**	**5.9**	--	**3,400**	**8,800**
BAP	11/07/2012	CH-BAP-1172012	**5.7**	**770**	**3,200**	**4.8**	--	**3,200**	**9,700**
BAP	03/13/2013	CH-BAP-031313	--	--	**2,010**	--	--	**2,700**	--
BAP	03/13/2013	CH-BAP-031313_C26660-1	--	**563**	--	**3.5**	**7.51**	--	**7,130**
BAP	03/13/2013	CH-BAP-031313_C26660-1F	--	--	--	--	--	--	--
BAP	09/18/2013	CH-BAP-0913	--	--	**2,200**	--	--	**2,800**	--
BAP	09/18/2013	CH-BAP-0913_C29829-10	--	**562**	--	**3.9**	**8.46**	--	**7,400**
BAP	09/18/2013	CH-BAP-0913_C29829-10F	--	--	--	--	--	--	--
BAP	05/22/2014	CH-BAP-0514	--	--	**2,400**	--	--	**3,300**	--
BAP	05/22/2014	CH-BAP-0514_C34218-6	--	**645**	--	**4.1**	**8.01**	--	**10,600**
BAP	05/22/2014	CH-BAP-0514_C34218-6F	--	--	--	--	--	--	--
BAP	10/13/2014	CH-BAP-1014	--	**564**	**2,170**	**4.2**	**8.11**	**3,060**	**8,350**
BAP	05/04/2015	CH-BAP-0515	--	**523**	**1,710**	**3.8**	**8.06**	**2,590**	**6,880**
BAP	06/15/2016	CH-APP-BAP-0615	--	--	--	--	--	--	--
BAP	10/12/2016	CH-APP-BP-1016	--	--	**1,900**	**5.8**	**8.8**	**3,300**	**8,000**
BAP	10/12/2016	CH-APP-BP-1016	--	--	--	--	--	--	--
BAP	06/07/2017	CH-APP-BAP-60717	--	--	**1,800**	**4.6**	**8.8**	**3,300**	**7,200**
BAP	10/06/2017	CH-APP-BAP-10617	--	--	**1,900**	**4.1**	**8.6**	**3,100**	**7,500**
BAP	10/06/2017	CH-APP-BAP-10617	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-FBAP-10617	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-FBAP-10617	--	--	--	--	--	--	--
BAP	03/30/2019	CH-CCR-BAP-33019	**4.8**	**550**	**2,100**	**3.7**	**8.3 J**	**3,100**	**7,700**
BAP	04/29/2019	CH-APP-BAP-42919	--	--	**2,100**	**3.7**	**8.2 J**	**3,100**	**8,200**
BAP	04/16/2021	CH-CCR-BAP-0421	**3.4**	**560**	**1,800**	**3.3**	**8.9 J**	**2,900**	**6,800**
BAP	10/31/2021	CH-CCR-BAP-1021	**3.2**	**540**	**1,800**	**3.9**	**8.4 J**	**2,900**	**6,400**
BAP	04/21/2022	CH-CCR-BAP-0422	**3.1**	**530**	**1,700**	**3.5**	**8.4 J**	**2,700**	**6,500**
BAP	04/21/2022	CH-CCR-SS07-0422	**3.61**	**688**	**1,700**	**2.72 J**	**8.4 J**	**2,640**	**6,640**
BAP	04/21/2022	CH-CCR-SS07-0422	--	--	--	**3.21**	--	--	--
BAP	10/26/2022	CH-CCR-BAP-1022	**3.2**	**580**	**1,900**	**3.0**	**8.5 J**	**3,100**	**7,100**
BAP	04/26/2023	CH-CCR-BAP-0423	**3.4**	**590**	**1,800**	< 4	**8.3 J**	**2,800**	**6,500**
BAP	10/13/2023	CH-CCR-BAP-1023	**4.7**	**560**	**1,900**	**4.3**	**8.3 J**	**3,100**	**7,600**
BAP	05/01/2024	CH-CCR-BAP-0424	**3.5**	**550**	**1,700**	**2.6**	**8.7 J**	**2,500**	**7,000**
BAP	11/14/2024	CH-CCR-BAP-1024	**3.67**	**490**	**1,440**	**1.65**	**8.05 J**	**2,330**	**6,770**
FAP	01/05/2012	CH-FAP-01052012	**110**	--	**10,000**	**21**	**7.07**	**8,400**	**26,000**
FAP	11/07/2012	CH-FAP-1172012	**130**	**740**	**11,000**	**30**	--	**9,800**	**30,000**
FAP	03/13/2013	CH-FAP-031313	--	--	**10,700**	--	--	**10,400**	--
FAP	03/13/2013	CH-FAP-031313_C26660-2	**118**	**870**	--	**15.6**	**6.56**	--	**30,200**
FAP	03/13/2013	CH-FAP-031313_C26660-2F	--	--	--	--	--	--	--
FAP	09/18/2013	CH-FAP-0913	--	--	**10,000**	--	--	**9,600**	--
FAP	09/18/2013	CH-FAP-0913_C29829-11	**137**	**655**	--	**19.7**	**5.69**	--	**34,600**
FAP	09/18/2013	CH-FAP-0913_C29829-11F	--	--	--	--	--	--	--
FAP	05/22/2014	CH-FAP-0514	--	--	**10,000**	--	--	**9,900**	--
FAP	05/22/2014	CH-FAP-0514_C34218-5	**139**	**694**	--	**20.3**	**6.3**	--	**34,800**
FAP	10/13/2014	CH-FAP-1014	**152**	**860**	**10,600**	**37.9**	**5.8**	**10,700**	**36,800**
FAP	01/17/2015	CH-FAP-0115	--	--	--	**40.6**	**6.99**	--	**34,200**
FAP	05/04/2015	CH-FAP-0515	**131**	**832**	**8,450**	**24.7**	**5.46**	**9,140**	**35,000**
FAP	06/15/2016	CH-APP-FAP-0615	--	--	--	--	--	--	--
FAP	07/05/2016	CH-APP-FAP-070516	--	--	--	**49**	--	--	--
FAP	10/12/2016	CH-APP-Flyash-1016	**210**	--	**15,000**	**53**	**3**	**15,000**	**38,000**
FAP	11/17/2016	CH-APP-FPF-1116	--	--	--	**29**	--	--	**21,000**
FAP	12/21/2016	CH-CCR-FAP-1216	**170**	**600**	**15,000**	**55**	**3.1**	**17,000**	**15,000**

Table C-7
Groundwater Sampling Results for the BAP and FAP Surface Water - Appendix III Constituents

			Appendix III Constituents						
		Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
		Filtered:	N	N	N	N	N	N	N
		Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
CCR Unit	Sample Date	Sample ID							
FAP	12/21/2016	CH-CCR-FAP-1216	--	--	--	50	--	--	--
FAP	12/21/2016	CH-CCR-M100-1216	170	610	15,000	55	3.1	16,000	21,000
FAP	12/21/2016	CH-CCR-M100-1216	--	--	--	51	--	--	--
FAP	06/07/2017	CH-APP-FAP-60717	230	--	17,000	53	3.8	17,000	46,000
FAP	06/07/2017	CH-APP-FAP-60717	230	--	--	--	--	--	--
FAP	07/02/2017	CH-APP-FAP-70217	240	690	--	57	--	--	--
FAP	10/06/2017	CH-APP-FAP-10617	270	--	19,000	3.9	3.5	20,000	56,000
FAP	10/06/2017	CH-APP-FAP-10617	--	--	--	--	--	--	--
FAP	10/06/2017	CH-APP-FFAP-10617	--	--	--	--	--	--	--
FAP	03/30/2019	CH-CCR-FAP-33019	350	730	24,000	5.1 R	6.7 J	24,000	74,000
FAP	03/30/2019	CH-CCR-FAP-33019	--	--	--	68 J	--	--	--
FAP	04/29/2019	CH-APP-FAP-42919	310	--	24,000	69 J	7.1 J	25,000	77,000
FAP	10/31/2021	CH-CCR-FAP-1021	680	680	54,000	290	5.8 J	52,000	160,000
FAP	04/21/2022	CH-CCR-FAP-0422	610	710	49,000	120	6.5 J	46,000	100,000
FAP	04/21/2022	CH-CCR-SS11-0422	632	1,340	48,400	69.6 J	6.4 J	46200 J	149,000
FAP	04/21/2022	CH-CCR-SS11-0422	--	--	--	21.2	--	--	--
FAP	10/26/2022	CH-CCR-FAP-1022	510	800	41,000	84	6.8 J	38,000	130,000 J
FAP	04/25/2023	CH-CCR-FAP-0423	500	680	50,000	< 400	7.1 J	44,000	150,000
FAP	10/13/2023	CH-CCR-FAP-1023	1,000	130	78,000	19	6.1 J	69,000	180,000
FAP	05/02/2024	CH-CCR-FAP-0424	830	490	11,000	<400	7.1 J	5,800	120,000
FAP	11/13/2024	CH-CCR-FAP-1024	1,120	288	99,000	113	6.79 J	48,600	259,000

Notes:
Duplicate sample dates under the same location are either field duplicates or are instances of samples with multiple field/lab sample IDs on the same date.

Abbreviations and Data Qualifiers:
< = less than
BAP = Bottom Ash Pond
BTV = Background Threshold Value
CCR = Coal Combustion Residual
degrees C = degrees Celsius
FAP = Fly Ash Pond
ID = Identification
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table C-8
Groundwater Sampling Results for the BAP and FAP Surface Water - Appendix IV Constituents

			Appendix IV Constituents																
		Constituent:	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Total Radium
		Filtered:	N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N
		Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
CCR Unit	Sample Date	Sample ID																		
BAP	01/05/2012	CH-BAP-01052012	--	--	--	--	--	< 0.0010	--	< 0.010	--	--	< 4.0	< 0.015	--	--	--	--	< 0.0010	--
BAP	11/07/2012	CH-BAP-11072012	--	--	--	--	--	< 0.0010	--	< 0.010	--	--	**5.9**	< 0.015	--	--	--	--	< 0.0020	--
BAP	11/07/2012	CH-BAP-1172012	--	--	--	--	--	--	--	--	--	--	**4.8**	--	--	--	--	--	--	--
BAP	03/13/2013	CH-BAP-031313	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	03/13/2013	CH-BAP-031313_C26660-1	--	--	--	--	--	--	--	--	--	--	**3.5**	--	--	--	--	--	--	--
BAP	03/13/2013	CH-BAP-031313_C26660-1F	--	--	--	--	--	--	--	< 0.010	--	--	--	--	--	--	--	--	--	--
BAP	09/18/2013	CH-BAP-0913	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	09/18/2013	CH-BAP-0913_C29829-10	--	--	--	--	--	--	--	--	--	--	**3.9**	--	--	--	--	--	--	--
BAP	09/18/2013	CH-BAP-0913_C29829-10F	--	--	--	--	--	--	--	< 0.010	--	--	--	--	--	--	--	--	--	--
BAP	05/22/2014	CH-BAP-0514	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	05/22/2014	CH-BAP-0514_C34218-6	--	--	--	--	--	--	--	--	--	--	**4.1**	--	--	--	--	--	--	--
BAP	05/22/2014	CH-BAP-0514_C34218-6F	--	--	--	--	--	--	--	< 0.01	--	--	--	--	--	--	--	--	--	--
BAP	10/13/2014	CH-BAP-1014	--	--	--	--	--	--	--	< 0.01	--	--	**4.2**	--	--	--	--	--	--	--
BAP	05/04/2015	CH-BAP-0515	--	--	--	--	--	--	--	< 0.01	--	--	**3.8**	--	--	--	--	--	--	--
BAP	06/15/2016	CH-APP-BAP-0615	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	10/12/2016	CH-APP-BP-1016	--	--	--	--	--	--	--	< 0.010	--	--	**5.8**	--	--	--	--	--	--	--
BAP	10/12/2016	CH-APP-BP-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	06/07/2017	CH-APP-BAP-60717	--	--	--	--	--	--	--	< 0.010	--	--	**4.6**	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-BAP-10617	--	--	--	--	--	--	--	--	--	--	**4.1**	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-BAP-10617	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-FBAP-10617	--	--	--	--	--	--	--	< 0.010	--	--	--	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-FBAP-10617	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	03/30/2019	CH-CCR-BAP-33019	**0.0027**	**0.017**	--	**0.20 J**	< 0.0010	**0.00011**	**0.0035**	--	**0.00099**	--	**3.7**	< 0.00050	< 0.20	< 0.00020	**0.027**	**0.014**	< 0.00010	--
BAP	04/29/2019	CH-APP-BAP-42919	--	--	--	--	--	--	--	< 0.010	--	--	**3.7**	--	--	--	--	--	--	--
BAP	04/16/2021	CH-CCR-BAP-0421	**0.0030**	**0.016**	--	**0.27**	< 0.001	< 0.0002	**0.002**	--	**0.00061 J**	**0.00086 J**	**3.3**	< 0.001	**0.17**	< 0.0002	**0.034**	**0.017**	< 0.0002	< 0.7
BAP	10/31/2021	CH-CCR-BAP-1021	**0.0023**	**0.026**	**0.022**	**0.29**	< 0.001	**0.000069 J**	**0.0037**	--	**0.0014**	**0.00091**	**3.9**	**0.001**	**0.17**	< 0.0002	**0.035**	**0.0072**	**0.000073 J**	--
BAP	04/21/2022	CH-CCR-BAP-0422	**0.00015 J**	**0.011**	**0.022**	**0.012**	< 0.001	<0.0001	**0.011**	--	**0.003**	**0.00059**	**3.5**	**0.0018**	**0.16**	< 0.0002	**0.036**	< 0.0005	< 0.0001	--
BAP	04/21/2022	CH-CCR-SS07-0422	**0.00202 J**	**0.0233**	**0.0171**	**0.275**	< 0.00125	< 0.00125	< 0.01	--	**0.00309**	**0.00191**	**2.72 J**	< 0.0025	**0.213**	--	**0.0335**	**0.0297**	< 0.0025	--
BAP	04/21/2022	CH-CCR-SS07-0422	--	--	--	--	--	--	--	--	--	--	**3.21**	--	--	--	--	--	--	--
BAP	10/26/2022	CH-CCR-BAP-1022	**0.0019**	**0.021**	**0.019**	**0.33**	< 0.001	< 0.0001	**0.0016**	--	**0.00085**	< 0.0005	**3.0**	**0.00082**	**0.18**	< 0.0002	**0.027**	**0.0045**	< 0.0001	--
BAP	04/26/2023	CH-CCR-BAP-0423	< 0.01	**0.016**	**0.015**	**0.17**	< 0.001	< 0.002	**0.0012 J**	**--**	**0.00062 J**	< 0.002	< 4	< 0.002	**0.19**	--	**0.026**	< 0.01	< 0.002	--
BAP	10/13/2023	CH-CCR-BAP-1023	**0.0025**	**0.021**	**0.011**	**0.55**	<0.001	**0.00029**	**0.015**	**0.015**	**0.0044**	<0.0005	**4.3**	**0.0095**	**0.20**	--	**0.029**	**0.0095**	**0.00014**	--
BAP	05/01/2024	CH-CCR-BAP-0424	<0.02	**0.018**	**0.016**	**0.066**	<0.001	<0.002	<0.02	<0.02	<0.01	<0.01	**2.6**	<0.01	**0.20**	--	**0.023**	<0.01	<0.002	--
BAP	11/14/2024	CH-CCR-BAP-1024	<0.0025	**0.0068**	**0.0064**	**0.0817**	<0.00044	<0.0004	<0.01	**--**	<0.0025	<0.0025	**1.65**	<0.0025	**0.15**	--	**0.0212**	**0.0044**	<0.0005	--
FAP	01/05/2012	CH-FAP-01052012	--	--	--	--	--	**0.0045**	< 0.010	< 0.010	--	--	**21**	< 0.015	--	--	--	--	< 0.0010	--
FAP	11/07/2012	CH-FAP-1172012	--	--	--	--	--	< 0.0010	--	< 0.010	--	--	**30**	< 0.015	--	--	--	--	< 0.0040	--
FAP	03/13/2013	CH-FAP-031313	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.001	--
FAP	03/13/2013	CH-FAP-031313_C26660-2	--	--	--	--	--	< 0.0040	--	--	--	--	**15.6**	< 0.10	--	--	--	--	--	--
FAP	03/13/2013	CH-FAP-031313_C26660-2F	--	--	--	--	--	--	--	< 0.020	--	--	--	--	--	--	--	--	--	--
FAP	09/18/2013	CH-FAP-0913	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.001**	--
FAP	09/18/2013	CH-FAP-0913_C29829-11	--	--	--	--	--	**0.0021**	--	--	--	--	**19.7**	< 0.050	--	--	--	--	--	--
FAP	09/18/2013	CH-FAP-0913_C29829-11F	--	--	--	--	--	--	--	< 0.010	--	--	--	--	--	--	--	--	--	--
FAP	05/22/2014	CH-FAP-0514	--	--	--	--	--	--	--	< 0.25	--	--	--	--	--	--	--	--	--	--
FAP	05/22/2014	CH-FAP-0514_C34218-5	--	--	--	--	--	**0.0365**	--	--	--	--	**20.3**	< 0.01	--	--	--	--	< 0.005	--
FAP	10/13/2014	CH-FAP-1014	--	--	--	--	--	< 0.002	--	< 0.1	--	--	**37.9**	< 0.1	--	--	--	--	**0.0076**	--
FAP	01/17/2015	CH-FAP-0115	--	--	--	--	--	--	--	--	--	--	**40.6**	--	--	--	--	--	--	--
FAP	05/04/2015	CH-FAP-0515	--	--	--	--	--	< 0.002	--	< 0.01	--	--	**24.7**	< 0.1	--	--	--	--	< 0.025	--
FAP	06/15/2016	CH-APP-FAP-0615	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0014**	--
FAP	07/05/2016	CH-APP-FAP-070516	--	--	--	--	--	--	--	--	--	--	**49**	--	--	--	--	--	--	--
FAP	10/12/2016	CH-APP-Flyash-1016	--	--	--	--	--	**0.004**	--	**0.02**	--	--	**53**	**0.0041**	--	--	--	--	**0.0013**	--
FAP	11/17/2016	CH-APP-FPF-1116	--	--	--	--	--	--	--	--	--	--	**29**	--	--	--	--	--	--	--
FAP	12/21/2016	CH-CCR-FAP-1216	**0.033**	**0.25**	--	**0.067**	**0.0045**	**0.0012**	**0.0085**	--	**0.0091**	--	**55**	**0.0034**	**2.4**	**0.00073**	**0.43**	**0.038**	**0.001**	--

Table C-8
Groundwater Sampling Results for the BAP and FAP Surface Water - Appendix IV Constituents

			Appendix IV Constituents																
		Constituent:	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Total Radium
		Filtered:	N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N
		Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
CCR Unit	Sample Date	Sample ID																		
FAP	12/21/2016	CH-CCR-FAP-1216	--	--	--	--	--	--	--	--	--	--	**50**	--	--	--	--	--	--	--
FAP	12/21/2016	CH-CCR-M100-1216	**0.033**	**0.25**	--	**0.068**	**0.0045**	**0.0013**	**0.0091**	--	**0.0094**	--	**55**	**0.0036**	**2.4**	**0.00072**	**0.43**	**0.042**	**0.001**	--
FAP	12/21/2016	CH-CCR-M100-1216	--	--	--	--	--	--	--	--	--	--	**51**	--	--	--	--	--	--	--
FAP	06/07/2017	CH-APP-FAP-60717	--	--	--	--	--	**0.00069**	--	**0.019**	--	--	**53**	< 0.0020	--	--	--	--	**0.0012**	--
FAP	06/07/2017	CH-APP-FAP-60717	--	--	--	--	--	**0.00071**	--	--	--	--	--	< 0.0020	--	--	--	--	**0.00097**	--
FAP	07/02/2017	CH-APP-FAP-70217	--	--	--	--	--	--	--	--	--	--	**57**	--	--	--	--	--	--	--
FAP	10/06/2017	CH-APP-FAP-10617	--	--	--	--	--	**0.0014**	--	--	--	--	**3.9**	**0.004**	--	--	--	--	**0.0011**	--
FAP	10/06/2017	CH-APP-FAP-10617	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	10/06/2017	CH-APP-FFAP-10617	--	--	--	--	--	--	--	**0.024**	--	--	--	--	--	--	--	--	--	--
FAP	03/30/2019	CH-CCR-FAP-33019	**0.036**	**0.17**	--	**0.092**	**0.0057**	< 0.00040	**0.0024**	--	**0.0053**	--	**5.1 R**	< 0.0020	**4.1**	< 0.00020	**0.52**	**0.034**	< 0.00040	--
FAP	03/30/2019	CH-CCR-FAP-33019	--	--	--	--	--	--	--	--	--	--	**68 J**	--	--	--	--	--	--	--
FAP	04/29/2019	CH-APP-FAP-42919	--	--	--	--	--	< 0.0010	--	< 0.020	--	--	**69 J**	< 0.0050	--	--	--	--	< 0.0010	--
FAP	10/31/2021	CH-CCR-FAP-1021	**0.066**	**0.63**	**0.62**	**0.14**	**0.013 J**	**0.0009 J**	**0.0099 J**	--	**0.019**	**0.02**	**290**	< 0.005	**7.9**	< 0.0002	**0.77**	**0.071**	**0.00051 J**	**14.1**
FAP	04/21/2022	CH-CCR-FAP-0422	**0.061**	**0.6**	**0.58**	**0.14**	**0.0098**	**0.00051 J**	**0.012**	--	**0.021**	**0.021**	**120**	< 0.005	**9.3**	< 0.0002	**0.74**	**0.064**	**0.00055 J**	< 0.6
FAP	04/21/2022	CH-CCR-SS11-0422	**0.0657 J**	**0.75**	**0.478**	**0.151 J**	**0.0106 J**	< 0.025	< 0.2	--	**0.0329**	**0.0254**	**69.6 J**	< 0.05	**12.3**	< 0.005	**0.826**	**0.614 J**	< 0.05	--
FAP	04/21/2022	CH-CCR-SS11-0422	--	--	--	--	--	--	--	--	--	--	**21.2**	--	--	--	--	--	--	--
FAP	10/26/2022	CH-CCR-FAP-1022	**0.057**	**0.36**	**0.25**	**0.25**	< 0.01	< 0.0004	**0.0061**	--	**0.019**	**0.016**	**84**	< 0.0005	**6.4**	< 0.0002	**0.88**	**0.12**	**0.00028**	**1.7**
FAP	04/25/2023	CH-CCR-FAP-0423	**0.052 J**	**0.54**	**0.069**	**0.17**	< 0.01	< 0.02	< 0.1	--	**0.023**	**0.021**	< 400	< 0.02	**10**	< 0.0002	**0.83**	**0.13**	< 0.02	< 0.6
FAP	10/13/2023	CH-CCR-FAP-1023	**0.11**	**0.76**	**0.77**	**0.14**	**0.0078**	<0.002	<0.02	--	**0.020**	**0.021**	**19**	<0.01	**16**	<0.0002	**1.0**	**0.13**	**0.0022**	**182**
FAP	05/02/2024	CH-CCR-FAP-0424	**0.11**	**0.90**	**0.88**	**0.095**	<0.1	<0.002	**0.020**	--	<0.01	<0.01	<400	<0.01	**8.60**	<0.0002	**0.49**	**0.097**	<0.002	<3.6
FAP	11/13/2024	CH-CCR-FAP-1024	**0.114**	**0.75**	**0.475**	**0.127**	**0.0048**	<0.004	<0.1	--	**0.0123**	**0.0118**	**113**	<0.0032	**11.7**	<0.002	**0.666**	**0.259**	<0.0013	**4.6**

Notes:
Duplicate sample dates under the same location are either field duplicates or are instances of samples with multiple field/lab sample IDs on the same date.

Abbreviations and Data Qualifiers:
< = less than
BAP = Bottom Ash Pond
BTV = Background Threshold Value
CCR = Coal Combustion Residual
degrees C = degrees Celsius
FAP = Fly Ash Pond
ID = Identification
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table C-9
Groundwater Sampling Results for the BAP and FAP Surface Water - Additional Analyses

			Additional Analyses																										
		Constituent:	Alkalinity (as CaCO3)	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity, Phenolphthalein, as CaCO3	Ammonia (as N)	Chromium,Total Dissolved	Chromium,Total Dissolved	Dissolved Organic Carbon	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	Sodium	Total Organic Carbon	Uranium
		Filtered:	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N
		Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
CCR Unit	Sample Date	Sample ID																											
BAP	01/05/2012	CH-BAP-01052012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0	--	< 2.0	< 5.0	--	--	--	--	--	--	--	--
BAP	11/07/2012	CH-BAP-11072012	**54**	**54**	< 6.0	< 6.0	< 6.0	--	--	--	--	--	--	--	**340**	--	--	< 0.20	--	< 0.20	< 1.4	**0.6**	**30**	--	--	--	**2,000**	--	--
BAP	11/07/2012	CH-BAP-1172012	**140**	**140**	< 6.0	< 6.0	< 6.0	--	--	--	--	--	--	--	**310**	--	--	--	--	--	--	--	**26**	--	--	--	**2,200**	--	--
BAP	03/13/2013	CH-BAP-031313	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8	--	< 0.8	--	--	--	--	--	--	--	--	--
BAP	03/13/2013	CH-BAP-031313_C26660-1	**65.3**	**65.3**	< 5.0	< 5.0	--	--	--	--	--	--	--	--	**289**	--	--	--	--	--	< 1.8	**0.62**	**28.3**	--	--	--	**1,710**	--	--
BAP	03/13/2013	CH-BAP-031313_C26660-1F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	09/18/2013	CH-BAP-0913	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8	--	< 0.8	--	--	--	--	--	--	--	--	--
BAP	09/18/2013	CH-BAP-0913_C29829-10	**60**	**52**	**8**	< 5.0	--	--	--	--	--	--	--	--	**287**	--	--	--	--	--	--	**3.2**	**26.5**	--	--	--	**768**	--	--
BAP	09/18/2013	CH-BAP-0913_C29829-10F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	05/22/2014	CH-BAP-0514	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8	--	< 0.8	--	--	--	--	--	--	--	--	--
BAP	05/22/2014	CH-BAP-0514_C34218-6	**97**	**97**	< 5.0	--	--	--	--	--	--	--	--	--	**375**	--	--	--	--	--	< 1.8	< 0.20	**32.8**	--	--	--	**1,830**	--	--
BAP	05/22/2014	CH-BAP-0514_C34218-6F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	10/13/2014	CH-BAP-1014	**63.1**	**63.1**	--	--	--	--	--	--	--	--	--	--	**331**	--	--	< 0.10	< 0.20	< 0.10	**0.87**	**0.87**	**28.4**	--	--	--	**1,560**	--	--
BAP	05/04/2015	CH-BAP-0515	**106**	**106**	< 5.0	--	--	--	--	--	--	--	--	--	**288**	--	--	< 0.10	< 0.20	< 0.10	< 0.40	< 0.20	**23.2**	--	--	--	**1,280**	--	--
BAP	06/15/2016	CH-APP-BAP-0615	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.10	< 0.10	< 0.10	**1**	--	--	--	--	--	--	--	--
BAP	10/12/2016	CH-APP-BP-1016	--	--	--	--	--	--	--	< 0.01	--	--	--	--	--	--	--	< 0.10	--	< 0.10	--	**1.1**	--	--	--	--	--	--	--
BAP	10/12/2016	CH-APP-BP-1016	--	--	--	--	--	--	--	< 0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	06/07/2017	CH-APP-BAP-60717	--	--	--	--	--	--	--	< 0.01	--	--	--	--	--	--	--	--	< 0.50	--	**1.5**	**1.5**	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-BAP-10617	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.50	< 0.50	< 0.50	**0.78**	**0.78**	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-BAP-10617	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.50	--	--	--	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-FBAP-10617	--	--	--	--	--	--	--	< 0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	10/06/2017	CH-APP-FBAP-10617	--	--	--	--	--	--	--	< 0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	03/30/2019	CH-CCR-BAP-33019	**120**	**120**	< 6.0	< 6.0	< 6.0	--	**0.0035**	--	--	--	--	--	**300**	--	--	--	--	--	--	--	**28**	--	--	--	**1,500**	--	--
BAP	04/29/2019	CH-APP-BAP-42919	--	--	--	--	--	--	--	< 0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	04/16/2021	CH-CCR-BAP-0421	**170**	**120**	**46**	< 6	**23**	< 0.05	**0.002**	--	--	--	**0.77**	**0.73**	**300**	**0.064**	**0.065**	--	**0.14 J**	--	--	--	**30**	< 0.4	< 0.7	--	**1,400**	**2.5**	--
BAP	10/31/2021	CH-CCR-BAP-1021	**150**	**150**	< 6	< 6	< 6	< 0.05	**0.0037**	--	--	**1.9**	**0.93**	**0.054 J**	**290**	**0.13**	**0.12**	--	< 0.25	--	--	--	**27**	--	--	--	**1,400**	**3**	--
BAP	04/21/2022	CH-CCR-BAP-0422	**170**	**160**	**7.3**	< 6	< 6	< 0.05	**0.011**	--	--	**2.4**	**0.34**	<0.1	**270**	**0.06**	**0.049**	--	< 0.25	--	--	--	**25**	--	--	--	**1,200**	**2.5**	--
BAP	04/21/2022	CH-CCR-SS07-0422	**171**	**159**	**12.1 J**	< 20	--	< 0.2	< 0.01	--	--	**2.5 J**	< 0.75	< 0.75	**232**	**1.24**	< 0.25	--	< 0.1	--	--	--	**15.4**	--	--	--	**1,550**	**2.6 J**	--
BAP	04/21/2022	CH-CCR-SS07-0422	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAP	10/26/2022	CH-CCR-BAP-1022	**110**	**15**	< 6	**120**	**7.7**	< 0.05	**0.0016**	--	--	**2.5**	**1.3**	< 0.1	**320**	**0.11**	**0.014**	--	< 0.25	--	--	--	**30**	--	--	--	**1,600**	**2.9**	--
BAP	04/26/2023	CH-CCR-BAP-0423	**130**	**130**	< 6	< 6	< 6	< 0.05	**0.0012 J**	--	--	**2.0**	**0.66**	< 0.1	**280**	**0.056**	**0.028**	--	< 0.1	--	--	--	**26**	--	--	--	**1,300**	**2.2**	--
BAP	10/13/2023	CH-CCR-BAP-1023	**100**	<6	<6	**100**	<6	**0.089**	--	--	--	**1.9**	**14**	<0.1	**310**	**0.22**	**0.045**	--	<0.1	--	--	--	**32**	--	--	--	**1,400**	**1.8**	--
BAP	05/01/2024	CH-CCR-BAP-0424	**140**	<6	<6	**140**	<6	<0.05	--	--	--	2.1	**0.21**	<0.1	**270**	**0.14**	**0.11**	--	<0.1	--	--	--	**30**	--	--	--	**2,000**	**2.9**	--
BAP	11/14/2024	CH-CCR-BAP-1024	**135**	<20	--			<0.1	<0.01			<1	**0.207**	<0.05	**263**	**0.13**	**0.12**		<0.2				**31**	--	--	--	**1,460**	**1.81**	
FAP	01/05/2012	CH-FAP-01052012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0	--	< 2.0	< 5.0	**1.7**	--	--	--	--	--	--	**0.0058**
FAP	11/07/2012	CH-FAP-1172012	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	--	--	--	--	--	--	--	**1,600**	--	--	< 1.0	--	< 1.0	< 1.4	**0.43**	**140**	--	--	--	**7,900**	--	--
FAP	03/13/2013	CH-FAP-031313	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 6.7	--	< 6.7	--	--	--	--	--	--	--	--	**0.0023**
FAP	03/13/2013	CH-FAP-031313_C26660-2	**24.5**	**24.5**	< 5.0	< 5.0	--	--	--	--	--	--	--	--	**1,730**	--	--	--	--	--	< 14	**1.8**	**171**	--	--	--	**6,840**	--	--
FAP	03/13/2013	CH-FAP-031313_C26660-2F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	09/18/2013	CH-FAP-0913	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8	--	< 0.8	--	--	--	--	--	--	--	--	**0.004**
FAP	09/18/2013	CH-FAP-0913_C29829-11	**26**	**26**	< 5.0	< 5.0	--	--	--	--	--	--	--	--	**1,970**	--	--	--	--	--	--	**1.8**	**163**	--	--	--	**3,980**	--	--
FAP	09/18/2013	CH-FAP-0913_C29829-11F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	05/22/2014	CH-FAP-0514	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8	--	< 0.8	--	--	--	--	--	--	--	--	--
FAP	05/22/2014	CH-FAP-0514_C34218-5	**20.2**	**20.2**	< 5.0	--	--	--	--	--	--	--	--	--	**2,100**	--	--	--	--	--	< 1.8	**0.48**	**154**	--	--	--	**8,500**	--	< 0.01
FAP	10/13/2014	CH-FAP-1014	**56.2**	**56.2**	--	--	--	--	--	--	--	--	--	--	**2,480**	--	--	< 0.10	< 0.20	< 0.10	**3.2**	**3.2**	**165**	--	--	--	**7,730**	--	< 0.01
FAP	01/17/2015	CH-FAP-0115	**30.3**	**30.3**	< 5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	05/04/2015	CH-FAP-0515	**10**	**10**	< 5.0	--	--	--	--	--	--	--	--	--	**2,190**	--	--	< 0.50	< 1.0	< 0.50	< 1.2	**0.42**	**152**	--	--	--	**7,210**	--	< 0.05
FAP	06/15/2016	CH-APP-FAP-0615	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	07/05/2016	CH-APP-FAP-070516	--	--	--	--	--	< 2.5	--	--	--	--	--	--	--	--	--	< 0.10	--	< 0.20	**9.6**	**9.6**	--	--	--	--	**-- **	--	--
FAP	10/12/2016	CH-APP-Flyash-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.50	--	< 0.50	--	**9.4**	--	--	--	--	--	--	**0.0046**
FAP	11/17/2016	CH-APP-FPF-1116	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	12/21/2016	CH-CCR-FAP-1216	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	--	--	--	--	--	--	--	**2,500**	--	--	--	--	--	--	--	**190**	--	--	--	**8,600**	--	--

Table C-9
Groundwater Sampling Results for the BAP and FAP Surface Water - Additional Analyses

			Additional Analyses																										
		Constituent:	Alkalinity (as CaCO3)	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity, Phenolphthalein, as CaCO3	Ammonia (as N)	Chromium,Total Dissolved	Chromium,Total Dissolved	Dissolved Organic Carbon	Dissolved Organic Carbon	Iron	Iron	Magnesium	Manganese	Manganese	Nitrate as N	Nitrate-Nitrite as N	Nitrite (as N)	Nitrogen	Nitrogen, Kjeldahl, Total	Potassium	Radium 226	Radium 228	Silver	Sodium	Total Organic Carbon	Uranium
		Filtered:	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N
		Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L
CCR Unit	Sample Date	Sample ID																											
FAP	12/21/2016	CH-CCR-FAP-1216	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	12/21/2016	CH-CCR-M100-1216	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	--	--	--	--	--	--	--	**2,500**	--	--	--	--	--	--	--	**190**	--	--	--	**8,500**	--	--
FAP	12/21/2016	CH-CCR-M100-1216	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	06/07/2017	CH-APP-FAP-60717	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.50	--	**9.8**	**9.8**	--	--	--	--	--	--	**0.0028**
FAP	06/07/2017	CH-APP-FAP-60717	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0024**
FAP	07/02/2017	CH-APP-FAP-70217	--	--	--	--	--	--	--	--	--	--	--	--	**36,00**	--	--	--	--	--	--	--	**220**	--	--	--	**14,000**	--	--
FAP	10/06/2017	CH-APP-FAP-10617	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.50	< 0.50	< 0.50	**11**	**11**	--	--	--	--	--	--	--
FAP	10/06/2017	CH-APP-FAP-10617	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.50	--	--	--	--	--	--	--	--	--	--
FAP	10/06/2017	CH-APP-FFAP-10617	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	03/30/2019	CH-CCR-FAP-33019	**36**	**36**	< 6.0	< 6.0	< 6.0	--	--	--	--	--	--	--	**4,900**	--	--	--	--	--	--	--	**340**	--	--	--	**17,000**	--	--
FAP	03/30/2019	CH-CCR-FAP-33019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	04/29/2019	CH-APP-FAP-42919	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0021**
FAP	10/31/2021	CH-CCR-FAP-1021	**240**	**240**	< 6	< 6	< 6	**0.14**	--	--	--	**74**	**3.3**	**3.1**	**12,000**	**28**	**25**	--	< 0.25	--	--	--	**520**	**14.1**	< 3.6	--	**32,000**	**76**	--
FAP	04/21/2022	CH-CCR-FAP-0422	**230**	**230**	< 6	< 6	< 6	**0.041 J**	--	--	--	**140 J**	**1.2**	**1.1**	**12,000**	**27**	**26**	--	< 2.5	--	--	--	**650**	< 0.4	< 0.6	--	**33,000**	**86**	--
FAP	04/21/2022	CH-CCR-SS11-0422	**217**	**217**	< 20	< 20	--	< 4	--	--	**79.6**	--	< 15	< 15	**11,300**	**29.6**	**25.2**	--	< 0.1	--	--	--	**621**	--	--	--	**34,300**	**87.5 J**	--
FAP	04/21/2022	CH-CCR-SS11-0422	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FAP	10/26/2022	CH-CCR-FAP-1022	**260**	**260**	< 6	< 6	< 6	**0.22**	--	--	**62**	--	< 1	**0.68**	**8,200**	**23**	**22**	--	< 0.25	--	--	--	**410**	**1.7**	< 0.6	--	**24,000**	**69**	--
FAP	04/25/2023	CH-CCR-FAP-0423	**260**	**260**	< 6	< 6	< 6	**0.077**	--	--	--	**62**	**1.7**	**1.2**	**9,500**	**28**	**29**	--	< 2	--	--	--	**680**	< 0.43	< 0.58	--	**26,000**	**64**	--
FAP	10/13/2023	CH-CCR-FAP-1023	**84**	<6	<6	**84**	<6	**0.15**	--	--	**140**	--	**1.7**	**0.86**	**19,000**	**48**	**50**	--	--	--	--	--	**910**	**90**	**92**	**--**	**51,000**	**130**	--
FAP	05/02/2024	CH-CCR-FAP-0424	**720**	<6	<6	**720**	<6	**2.4**	--	--	**110**		<10	<10	**14,000**	**37 J**	**59 J**	--	<0.25 UJ	--	--	--	**630**	<2.4	<3.6	--	**35,000**	**110**	--
FAP	11/13/2024	CH-CCR-FAP-1024	**964**	<20	--	**--**	--	<1	--	--	--	**156**	<0.5	<0.5	**19,600**	**50.7**	**50.1**	--	<1	--	--	--	**1,050**	**4.6**	<3.6	<0.025	**56,000**	**182**	--

Notes:

Duplicate sample dates under the same location are either field duplicates or are instances of samples with multiple field/lab sample IDs on the same date.

Abbreviations and Data Qualifiers:

< = less than
BAP = Bottom Ash Pond
BTV = Background Threshold Value
CCR = Coal Combustion Residual
degrees C = degrees Celsius
FAP = Fly Ash Pond
ID = Identification
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table C-10
Groundwater Sampling Results for the BAM Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAM BTV	*0.56*	*110*	*1,700*	*1.8 / 1.7* / 1.6***	*7.3 - 8.2*	*420*	*3,300*
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**							
M-54	Background	Coconino Sandstone	12/03/2015	7799	**0.52**	**100**	**1,500**	**1.2**	**7.34**	**380**	**3,000**
M-54	Background	Coconino Sandstone	03/10/2016	CH-M-54-0316	**0.53**	**100**	**1,600**	**1.3**	**7.56**	**360**	**2,900**
M-54	Background	Coconino Sandstone	05/20/2016	CH-CCR-M54-516	**0.51**	**100**	**1,500**	**1.4**	**--**	**350**	**3,000**
M-54	Background	Coconino Sandstone	08/27/2016	CH-CCR-M54-816	**0.53**	**110**	**1,600**	**1.4**	**7.5**	**370**	**3,100**
M-54	Background	Coconino Sandstone	09/22/2016	CH-CCR-M54-916	**0.52**	**99**	**1,400**	**1.3**	**7.7**	**350**	**3,200**
M-54	Background	Coconino Sandstone	02/21/2017	CH-CCR-M54-217	**0.52**	**100**	**1,300**	**1.3**	**7.7**	**350**	**2,900**
M-54	Background	Coconino Sandstone	04/11/2017	CH-CCR-M54-41117	**0.51**	**100**	**1,500**	**1.3**	**7.7**	**360**	**3,100**
M-54	Background	Coconino Sandstone	04/24/2017	CH-CCR-M54-42417	**0.53**	**95**	**1,500**	**1.3**	**7.6**	**370**	**3,000**
M-54	Background	Coconino Sandstone	05/19/2017	CH-CCR-M54-51917	**0.50**	**99**	**1,600**	**1.3**	**7.8**	**380**	**3,200**
M-54	Background	Coconino Sandstone	05/25/2017	CH-CCR-M54-52517	**0.52**	**100**	**1,500**	**1.4**	**7.7**	**370**	**3,200**
M-54	Background	Coconino Sandstone	06/29/2017	CH-CCR-M54-62917	**0.51**	**97**	**1,600**	**1.4**	**7.6**	**380**	**2,900**
M-54	Background	Coconino Sandstone	07/29/2017	CH-CCR-M54-72917	**0.56**	**100**	**1,500**	**1.4**	**7.4**	**350**	**3,100**
M-54	Background	Coconino Sandstone	09/05/2017	CH-CCR-M54-90517	**0.55**	**100**	**1,500**	**1.4**	**7.5**	**370**	**3,100**
M-54	Background	Coconino Sandstone	12/07/2017	CH-CCR-M54-120717	**0.51**	**97**	**1,600**	**1.4**	**7.6**	**360**	**3,000**
M-54	Background	Coconino Sandstone	05/25/2018	CH-CCR-M-54-52518	**0.50**	**96**	**1,500**	**1.4**	**7.4**	**350**	**3,000**
M-54	Background	Coconino Sandstone	10/26/2018	CH-CCR-M-54-102618	**0.50**	**100**	**1,500**	**1.4**	**7.5**	**360**	**2,900**
M-54	Background	Coconino Sandstone	04/09/2019	CH-CCR-M54-40919	**0.53**	**98**	**1,400**	**1.3**	**7.7**	**340**	**3,100**
M-54	Background	Coconino Sandstone	10/22/2019	CH-CCR-M54-102219	**0.49**	**95**	**1,500**	**1.3**	**7.4 J**	**350**	**2,900**
M-54	Background	Coconino Sandstone	05/07/2020	CH-CCR-M54-0520	**0.51**	**98**	**1,400**	**1.8**	**7.6 J**	**360**	**3,100**
M-54	Background	Coconino Sandstone	10/21/2020	CH-CCR-M54-1020	**0.48**	**92**	**1,500**	**1.3**	**7.3 J**	**350**	**2,900**
M-54	Background	Coconino Sandstone	04/16/2021	CH-CCR-M54-0421	**0.52**	**100**	**1,700**	**1.4**	**7.6 J**	**420**	**3,300**
M-54	Background	Coconino Sandstone	10/24/2021	CH-CCR-M54-1021	**0.50**	**96**	**1,500**	**1.4**	**7.7 J**	**400**	**2,700 J**
M-54	Background	Coconino Sandstone	10/24/2021	re-analysis	**--**	**--**	**--**	**--**	**--**	**400 J / 390 J**	**--**
M-54	Background	Coconino Sandstone	11/19/2021	CH-CCR-M54-1121	**--**	**--**	**--**	**--**	**--**	**370**	**2,300**
M-54	Background	Coconino Sandstone	05/13/2022	CH-CCR-M54-0522	**0.50**	**99**	**1,400**	**1.4**	**7.6 J**	**360**	**3,100**
M-54	Background	Coconino Sandstone	05/13/2022	CH-CCR-SS01-0522	**0.482**	**96.5**	**1,480**	**1.5**	**8.2 J**	**353**	**3,100**
M-54	Background	Coconino Sandstone	08/31/2022	CH-CCR-M54-0822	**--**	**--**	**--**	**--**	**7.6 J**	**--**	**3,100**
M-54	Background	Coconino Sandstone	08/31/2022	CH-CCR-FD01-0822	**--**	**--**	**--**	**--**	**7.5 J**	**--**	**3,100**
M-54	Background	Coconino Sandstone	10/20/2022	CH-CCR-M54-1022	**0.50**	**93**	**1,500**	**1.4**	**7.5 J**	**420**	**3,100**
M-54	Background	Coconino Sandstone	1/26/2023	CH-CCR-M54-0123	**--**	**--**	**1,600**	**1.4**	**--**	**390**	**--**
M-54	Background	Coconino Sandstone	01/26/2023	*DUP* CH-CCR-FD01-0123	**--**	**--**	**1,500**	**1.4**	**--**	**380**	**--**
M-54	Background	Coconino Sandstone	04/13/2023	CH-CCR-M54-0423	**0.53**	**100**	**1,500**	**1.4**	**7.8 J**	**370 J**	**3,100 J**
M-54	Background	Coconino Sandstone	11/21/2023	CH-CCR-M54-1023	**0.55**	**100**	**1,400**	**1.3**	**7.6 J**	**350 J**	**3,100**
M-54	Background	Coconino Sandstone	04/30/2024	CH-CCR-M54-0424	**0.58**	**110**	**1,500**	**1.3**	**7.6 J**	**340**	**2,900**
M-54	Background	Coconino Sandstone	11/11/2024	CH-CCR-M54-1024	**0.522**	**90.4**	**1,500**	**1.35**	**8.03 J**	**377**	**3,140**

Table C-10
Groundwater Sampling Results for the BAM Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAM BTV	*0.56*	*110*	*1,700*	*1.8 / 1.7* / 1.6***	*7.3 - 8.2*	*420*	*3,300*
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**							
M-59	Downgradient	Coconino Sandstone	12/03/2015	7803	**0.50**	**87**	**1,300**	**1.3**	**7.53**	**340**	**2,700**
M-59	Downgradient	Coconino Sandstone	03/10/2016	CH-M-59-0316	**0.48**	**85**	**1,400**	**1.3**	**7.57**	**350**	**2,700**
M-59	Downgradient	Coconino Sandstone	05/20/2016	CH-CCR-M59-516	**0.49**	**86**	**1,400**	**1.4**	**--**	**340**	**2,700**
M-59	Downgradient	Coconino Sandstone	08/27/2016	CH-CCR-M59-816	**0.50**	**89**	**1,400**	**1.4**	**7.6**	**350**	**2,700**
M-59	Downgradient	Coconino Sandstone	09/22/2016	CH-CCR-M59-916	**0.50**	**88**	**1,300**	**1.4**	**7.8**	**340**	**2,900**
M-59	Downgradient	Coconino Sandstone	02/22/2017	CH-CCR-M59-217	**0.48**	**86**	**1,200**	**1.3**	**7.8**	**330**	**2,800**
M-59	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-M59-41117	**0.49**	**90**	**1,400**	**1.3**	**8.1**	**350**	**2,800**
M-59	Downgradient	Coconino Sandstone	04/24/2017	CH-CCR-M59-42417	**0.52**	**89**	**1,300**	**1.4**	**7.7**	**350**	**2,800**
M-59	Downgradient	Coconino Sandstone	05/19/2017	CH-CCR-M59-51917	**0.50**	**93**	**1,400**	**1.4**	**7.8**	**360**	**2,700**
M-59	Downgradient	Coconino Sandstone	05/25/2017	CH-CCR-M59-52517	**0.50**	**88**	**1,300**	**1.4**	**7.6**	**350**	**2,700**
M-59	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-M59-62917	**0.49**	**84**	**1,400**	**1.5**	**7.8**	**370**	**2,500**
M-59	Downgradient	Coconino Sandstone	07/29/2017	CH-CCR-M59-72917	**0.53**	**92**	**1,300**	**1.5**	**7.6**	**340**	**2,800**
M-59	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-M59-90517	**0.51**	**90**	**1,300**	**1.4**	**7.7**	**360**	**2,700**
M-59	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-M59-120717	**0.49**	**86**	**1,400**	**1.4**	**7.7**	**350**	**2,700**
M-59	Downgradient	Coconino Sandstone	05/25/2018	CH-CCR-M-59-52518	**0.49**	**85**	**1,400**	**1.4**	**7.5**	**350**	**2,700**
M-59	Downgradient	Coconino Sandstone	10/26/2018	CH-CCR-M-59-102618	**0.48**	**88**	**1,400**	**1.4**	**7.6**	**360**	**2,500**
M-59	Downgradient	Coconino Sandstone	04/09/2019	CH-CCR-M59-40919	**0.50**	**86**	**1,200**	**1.4**	**7.9 J**	**330**	**2,700**
M-59	Downgradient	Coconino Sandstone	10/23/2019	CH-CCR-M59-102319	**0.48**	**84**	**1,400**	**1.3**	**7.5 J**	**350**	**2,800**
M-59	Downgradient	Coconino Sandstone	05/07/2020	CH-CCR-M59-0520	**0.50**	**89**	**1,200**	**1.8**	**7.7 J**	**350**	**2,800**
M-59	Downgradient	Coconino Sandstone	10/21/2020	CH-CCR-M59-1020	**0.48**	**85**	**1,300**	**1.4**	**7.5 J**	**340**	**2,700**
M-59	Downgradient	Coconino Sandstone	01/13/2021	--	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-M59-0421	**0.49**	**87**	**1,200**	**1.4**	**7.6 J**	**340**	**2,800**
M-59	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-FD01-0421	**0.48**	**86**	**1,300**	**1.4**	**7.8 J**	**350**	**2,800**
M-59	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-M59-1021	**0.49**	**84**	**1,300**	**1.4**	**7.7 J**	**400**	**2,300 J**
M-59	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	**--**	**--**	**--**	**--**	**--**	**390 J / 370**	**--**
M-59	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-M59-1121	**--**	**--**	**--**	**--**	**--**	**360**	**2,600**
M-59	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-M59-0522	**0.50**	**89**	**1,200**	**1.4**	**7.9 J**	**350**	**2,900**
M-59	Downgradient	Coconino Sandstone	08/30/2022	CH-CCR-M59-0822	**--**	**--**	**--**	**--**	**7.6 J**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	10/19/2022	CH-CCR-M59-1022	**0.48**	**79**	**1,200**	**1.4**	**7.6 J**	**350**	**2,700**
M-59	Downgradient	Coconino Sandstone	04/12/2023	CH-CCR-M59-0423	**0.51**	**93**	**1,300**	**1.4**	**7.8 J**	**360 J**	**2,800 J**
M-59	Downgradient	Coconino Sandstone	04/12/2023	*DUP* CH-CCR-FD01-0423	**0.51**	**93**	**1,400**	**1.4**	**7.8 J**	**350 J**	**1,100 J**
M-59	Downgradient	Coconino Sandstone	11/21/2023	CH-CCR-M59-1023	**0.53**	**90**	**740 J**	**1.3 J**	**7.7 J**	**320**	**2,800**
M-59	Downgradient	Coconino Sandstone	11/21/2023	*DUP* CH-CCR-FD01-1023	**0.52**	**89**	**1,200 J**	**1.3**	**7.7 J**	**340 J**	**2,800**
M-59	Downgradient	Coconino Sandstone	04/30/2024	CH-CCR-M59-0424	**0.50**	**86**	**1,700 J**	**1.4**	**7.7 J**	**430 J**	**2,800**
M-59	Downgradient	Coconino Sandstone	04/30/2024	*DUP* CH-CCR-FD01-0424	**0.51**	**82**	**1,300 J**	**1.4**	**7.7 J**	**330 J**	**2,800**
M-59	Downgradient	Coconino Sandstone	07/01/2024	CH-CCR-M59-0724	**--**	**--**	**1,300**	**--**	**--**	**350**	**--**
M-59	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-M59-1024	**0.481**	**75.6**	**1330**	**1.46**	**7.71 J**	**358**	**2,810**
M-59	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-FD01-1024	**0.498**	**7.73**	**1,310**	**1.51**	**7.71 J**	**351**	**2,790**
M-60	Downgradient	Coconino Sandstone	12/03/2015	7801	**0.54**	**88**	**1,400**	**1.3**	**7.56**	**350**	**2,800**
M-60	Downgradient	Coconino Sandstone	03/09/2016	CH-M-60A-0316	**0.50**	**86**	**1,400**	**1.4**	**7.83**	**350**	**2,800**
M-60	Downgradient	Coconino Sandstone	05/20/2016	CH-CCR-M60-516	**0.50**	**89**	**1,400**	**1.5**	**--**	**350**	**2,800**
M-60	Downgradient	Coconino Sandstone	08/27/2016	CH-CCR-M60-816	**0.52**	**90**	**1,400**	**1.5**	**7.5**	**360**	**2,800**
M-60	Downgradient	Coconino Sandstone	09/22/2016	CH-CCR-M60-916	**0.51**	**88**	**1,300**	**1.4**	**7.8**	**350**	**3,000**
M-60	Downgradient	Coconino Sandstone	02/22/2017	CH-CCR-M60-217	**0.52**	**91**	**1,300**	**1.4**	**7.8**	**340**	**2,800**
M-60	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-M60-41117	**0.48**	**90**	**1,400**	**1.4**	**8.0**	**360**	**2,900**
M-60	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-FD01-41117	**0.47**	**84**	**1,300**	**1.4**	**7.8**	**370**	**2,900**
M-60	Downgradient	Coconino Sandstone	04/24/2017	CH-CCR-M60-42417	**0.53**	**86**	**1,400**	**1.4**	**7.8**	**350**	**2,700**

Table C-10
Groundwater Sampling Results for the BAM Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAM BTV	*0.56*	*110*	*1,700*	*1.8 / 1.7* / 1.6***	*7.3 - 8.2*	*420*	*3,300*
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**							
M-60	Downgradient	Coconino Sandstone	05/19/2017	CH-CCR-M60-51917	**0.53**	**92**	**1,400**	**1.4**	**7.7**	**360**	**2,800**
M-60	Downgradient	Coconino Sandstone	05/25/2017	CH-CCR-M60-52517	**0.51**	**86**	**1,300**	**1.4**	**7.7**	**350**	**2,800**
M-60	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-M60-62917	**0.51**	**84**	**1,500**	**1.5**	**7.7**	**440**	**2,500**
M-60	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-FD01-62917	**0.50**	**84**	**1,500**	**1.5**	**7.8**	**380**	**2,700**
M-60	Downgradient	Coconino Sandstone	07/29/2017	CH-CCR-M60-72917	**0.53**	**89**	**1,400**	**1.5**	**7.6**	**370**	**2,800**
M-60	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-M60-90517	**0.53**	**90**	**1,400**	**1.5**	**7.6**	**360**	**2,800**
M-60	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-FD01-90517	**0.52**	**89**	**1,400**	**1.5**	**7.6**	**360**	**2,700**
M-60	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-M60-120717	**0.50**	**85**	**1,500**	**1.4**	**7.6**	**360**	**2,900**
M-60	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-FD01-120717	**0.51**	**86**	**1,400**	**1.4**	**7.6**	**350**	**2,900**
M-60	Downgradient	Coconino Sandstone	05/25/2018	CH-CCR-M-60-52518	**0.50**	**83**	**1,400**	**1.5**	**7.5**	**350**	**2,800**
M-60	Downgradient	Coconino Sandstone	10/26/2018	CH-CCR-M-60-102618	**0.49**	**88**	**1,400**	**1.4**	**7.7**	**350**	**2,600**
M-60	Downgradient	Coconino Sandstone	04/09/2019	CH-CCR-M60-40919	**0.51**	**84**	**1,300**	**1.4**	**7.7 J**	**350**	**2,800**
M-60	Downgradient	Coconino Sandstone	10/22/2019	CH-CCR-M60-102219	**0.50**	**85**	**1,400**	**1.4**	**7.6 J**	**360**	**2,800**
M-60	Downgradient	Coconino Sandstone	05/07/2020	CH-CCR-M60-0520	**0.50**	**88**	**1,200**	**1.7**	**7.7 J**	**350**	**2,900**
M-60	Downgradient	Coconino Sandstone	10/21/2020	CH-CCR-M60-1020	**0.48**	**82**	**1,400**	**1.4 J**	**7.5 J**	**340**	**2,900**
M-60	Downgradient	Coconino Sandstone	10/21/2020	*DUP* CH-CCR-FD01-1020	**0.48**	**83**	**1,200**	**1.5 J**	**7.4 J**	**340**	**2,900**
M-60	Downgradient	Coconino Sandstone	01/13/2021	CH-CCR-M60-011321	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-60	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-M60-0421	**0.49**	**85**	**1,300**	**1.5**	**7.8 J**	**340**	**4,200**
M-60	Downgradient	Coconino Sandstone	07/07/2021	--	**--**	**--**	**--**	**--**	**--**	**--**	**2,700**
M-60	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-M60-1021	**0.49**	**85**	**1,300**	**1.5**	**7.6 J**	**450**	**2,900 J**
M-60	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	**--**	**--**	**--**	**--**	**--**	**390 J / 380 J**	**--**
M-60	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-M60-1121	**--**	**--**	**--**	**--**	**--**	**370**	**2,200**
M-60	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-M60-0522	**0.50**	**87**	**1,400**	**1.4**	**7.8 J**	**360**	**3,800**
M-60	Downgradient	Coconino Sandstone	05/13/2022	*DUP* CH-CCR-FD01-0522	**0.52**	**89**	**1,300**	**1.4**	**7.6 J**	**350**	**3,800**
M-60	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-SS02-0522	**0.483**	**84.8**	**1,360**	**1.57**	**8.2 J**	**350**	**2,880**
M-60	Downgradient	Coconino Sandstone	08/31/2022	CH-CCR-M60-0822	**--**	**--**	**--**	**--**	**--**	**--**	**2,900**
M-60	Downgradient	Coconino Sandstone	10/20/2022	CH-CCR-M60-1022	**0.48**	**80**	**1,300**	**1.5**	**7.5 J**	**400**	**2,700**
M-60	Downgradient	Coconino Sandstone	01/26/2023	CH-CCR-M60-0123	**--**	**--**	**1,400**	**1.5**	**--**	**380**	**--**
M-60	Downgradient	Coconino Sandstone	05/10/2023	CH-CCR-M60-0523	**0.51**	**79**	**1,400**	**1.4**	**7.7 J**	**370**	**2,800**
M-60	Downgradient	Coconino Sandstone	11/20/2023	CH-CCR-M60-1023	**0.53**	**88**	**1,300**	**1.4**	**7.6 J**	**350 J**	**2,900**
M-60	Downgradient	Coconino Sandstone	05/28/2024	CH-CCR-M60-0424	**0.58**	**96**	**1,200 J**	**1.4**	**7.6 J**	**330**	**2,800**
M-60	Downgradient	Coconino Sandstone	07/01/2024	CH-CCR-M60-0724	**0.52**	**--**	**--**	**--**	**--**	**--**	**--**
M-60	Downgradient	Coconino Sandstone	07/01/2024	*DUP* CH-CCR-FD01-0724	**0.51**	**--**	**--**	**--**	**--**	**--**	**--**
M-60	Downgradient	Coconino Sandstone	12/10/2024	CH-CCR-M60-1224	**0.603**	**90.2**	**1,300**	**1.35 J**	**8.00 J**	**356**	**2,790**
M-60	Downgradient	Coconino Sandstone	12/10/2024	CH-CCR-FD03-1224	**0.537**	**90.3**	**1,410**	**1.44 J**	**8.10 J**	**340**	**2,870**
M-60	Downgradient	Coconino Sandstone	01/16/2025	CH-CCR-M60-0125	**0.503**	**--**	**--**	**--**	**--**	**--**	**--**
M-61	Downgradient	Coconino Sandstone	12/03/2015	7802	**0.51**	**90**	**1,400**	**1.3**	**7.22**	**350**	**2,800**
M-61	Downgradient	Coconino Sandstone	03/10/2016	CH-M-61-0316	**0.49**	**90**	**1,400**	**1.4**	**7.59**	**340**	**2,800**
M-61	Downgradient	Coconino Sandstone	05/20/2016	CH-CCR-M61-516	**0.49**	**89**	**1,400**	**1.4**	**--**	**350**	**2,800**
M-61	Downgradient	Coconino Sandstone	08/27/2016	CH-CCR-M61-816	**0.50**	**90**	**1,400**	**1.5**	**7.5**	**360**	**2,900**
M-61	Downgradient	Coconino Sandstone	09/22/2016	CH-CCR-M61-916	**0.50**	**90**	**1,300**	**1.4**	**7.9**	**350**	**3,000**
M-61	Downgradient	Coconino Sandstone	02/22/2017	CH-CCR-M61-217	**0.50**	**92**	**1,100**	**1.4**	**7.8**	**340**	**2,700**
M-61	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-M61-41117	**0.50**	**93**	**1,700**	**1.4**	**8.0**	**420**	**3,000**
M-61	Downgradient	Coconino Sandstone	04/24/2017	CH-CCR-M61-42417	**0.52**	**88**	**1,400**	**1.4**	**7.7**	**360**	**2,700**
M-61	Downgradient	Coconino Sandstone	05/19/2017	CH-CCR-M61-51917	**0.50**	**92**	**1,400**	**1.3**	**7.8**	**370**	**2,800**
M-61	Downgradient	Coconino Sandstone	05/25/2017	CH-CCR-M61-52517	**0.51**	**92**	**1,400**	**1.4**	**7.7**	**370**	**2,800**
M-61	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-M61-62917	**0.50**	**86**	**1,500**	**1.5**	**7.8**	**380**	**2,700**

Table C-10
Groundwater Sampling Results for the BAM Monitoring Wells - Appendix III Constituents

					Appendix III Constituents						
				Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids
				Filtered:	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L
				BAM BTV	*0.56*	*110*	*1,700*	*1.8 / 1.7* / 1.6***	*7.3 - 8.2*	*420*	*3,300*
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**							
M-61	Downgradient	Coconino Sandstone	07/29/2017	CH-CCR-M61-72917	**0.52**	**94**	**1,300**	**1.5**	**7.6**	**360**	**2,900**
M-61	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-M61-90517	**0.50**	**91**	**1,400**	**1.5**	**7.6**	**360**	**2,800**
M-61	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-M61-120717	**0.49**	**88**	**1,500**	**1.4**	**7.6**	**360**	**2,900**
M-61	Downgradient	Coconino Sandstone	05/25/2018	CH-CCR-M-61-52518	**0.48**	**87**	**1,400**	**1.5**	**7.5**	**390**	**2,800**
M-61	Downgradient	Coconino Sandstone	10/26/2018	CH-CCR-M-61-102618	**0.48**	**91**	**1,400**	**1.4**	**7.5**	**360**	**2,600**
M-61	Downgradient	Coconino Sandstone	04/09/2019	CH-CCR-M61-40919	**0.50**	**88**	**1,300**	**1.4**	**7.7 J**	**340**	**2,800**
M-61	Downgradient	Coconino Sandstone	10/22/2019	CH-CCR-M61-102219	**0.48**	**87**	**1,400**	**1.4**	**7.8 J**	**350**	**2,700**
M-61	Downgradient	Coconino Sandstone	05/07/2020	CH-CCR-M61-0520	**0.51**	**93**	**1,300**	**1.6**	**7.7 J**	**350**	**3,000**
M-61	Downgradient	Coconino Sandstone	05/07/2020	*DUP* CH-CCR-FD01-0520	**0.51**	**93**	**1,200**	**1.7**	**7.6 J**	**350**	**2,900**
M-61	Downgradient	Coconino Sandstone	10/21/2020	CH-CCR-M61-1020	**0.48**	**88**	**1,400**	**1.4**	**7.5 J**	**350**	**2,700**
M-61	Downgradient	Coconino Sandstone	01/13/2021	CH-CCR-M61-011321	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-61	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-M61-0421	**0.49**	**91**	**1,300**	**1.5**	**7.8 J**	**340**	**2,900**
M-61	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-M61-1021	**0.48**	**88**	**1,400**	**1.4**	**7.6 J**	**400**	**3,200 J**
M-61	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	**--**	**--**	**--**	**--**	**--**	**400 J / 390 J**	**--**
M-61	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-FD01-1021	**0.49**	**89**	**1,400**	**1.4**	**7.6 J**	**450**	**3,000 J**
M-61	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	**--**	**--**	**--**	**--**	**--**	**400 J / 380 J**	**--**
M-61	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-M61-1121	**--**	**--**	**--**	**--**	**--**	**370**	**2,300**
M-61	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-FD01-1121	**--**	**--**	**--**	**--**	**--**	**370**	**2,300**
M-61	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-M61-0522	**0.49**	**90**	**1,200**	**1.4**	**7.6 J**	**360**	**3,800**
M-61	Downgradient	Coconino Sandstone	08/31/2022	CH-CCR-M61-0822	**--**	**--**	**--**	**--**	**--**	**--**	**2,900**
M-61	Downgradient	Coconino Sandstone	10/19/2022	CH-CCR-M61-1022	**0.49**	**86**	**1,300**	**1.5**	**7.6 J**	**360**	**2,800**
M-61	Downgradient	Coconino Sandstone	10/19/2022	*DUP* CH-CCR-FD01-1022	**0.48**	**83**	**1,200**	**1.5**	**7.7 J**	**360**	**2,800**
M-61	Downgradient	Coconino Sandstone	04/12/2023	CH-CCR-M61-0423	**0.51**	**97**	**1,400**	**1.4**	**7.8 J**	**350 J**	**2,900 J**
M-61	Downgradient	Coconino Sandstone	11/20/2023	CH-CCR-M61-1023	**0.53**	**93**	**1,300**	**1.3**	**7.7 J**	**350 J**	**2,900**
M-61	Downgradient	Coconino Sandstone	04/30/2024	CH-CCR-M61-0424	**0.51**	**90**	**1,400**	**1.4**	**7.7 J**	**330**	**2,700**
M-61	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-M61-1024	**0.481**	**78.5**	**1,340**	**1.55**	**7.70 J**	**364**	**2,890**
M-61	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-FD02-1024	**0.471**	**76.6**	**1,260**	**1.27**	**7.71 J**	**338**	**2,890**

Notes:
BTV exceedances are shown in grey shaded cells.
Duplicate sample dates under the same locations are either field duplicates or are instances of samples with multiple filed/lab sample IDs on the same date.
*Fluoride BTV for M-60 is 1.7 mg/L
**Fluoride BTV for M-61 is 1.6 mg/L

Abbreviations and Data Qualifiers:
< = less than
BTV = Background Threshold Value
CCR = Coal Combustion Residual
ID = Identification
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.]
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units

Table C-11
Groundwater Sampling Results for the BAM Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents															
				Constituent:	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Molybdenum	Mercury	Selenium	Thallium	Total Radium
				Filtered:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAM BTV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**															
M-54	Background	Coconino Sandstone	12/03/2015	7799	<0.0025	**0.0041**	**0.052**	<0.0010	<0.00010	<0.00050	<0.00050	**1.2**	<0.00050	<0.20	**0.0086**	<0.00020	**0.00018**	<0.00010	**4.0**
M-54	Background	Coconino Sandstone	03/10/2016	CH-M-54-0316	<0.015	**0.0073 j**	**0.045**	<0.0010	<0.00046	<0.0087	**0.0013 j**	**1.3**	<0.0044	<0.20	**0.0067 j**	<0.00020	<0.0015	<0.00026	**5.5**
M-54	Background	Coconino Sandstone	05/20/2016	CH-CCR-M54-516	**0.00015**	**0.0067**	**0.032**	<0.0010	<0.00010	<0.00050	**0.00058**	**1.4**	**0.00065**	<0.20	**0.0055**	<0.00020	<0.00050	<0.00010	**6.3**
M-54	Background	Coconino Sandstone	08/27/2016	CH-CCR-M54-816	<0.00010	**0.0077**	**0.032**	<0.0010	<0.00010	**0.00056**	**0.00057**	**1.4**	<0.00050	<0.20	**0.0060**	<0.00020	<0.00050	<0.00010	**7.5**
M-54	Background	Coconino Sandstone	09/22/2016	CH-CCR-M54-916	<0.00050	**0.0074**	**0.030**	<0.0010	<0.00010	<0.00050	**0.00055**	**1.3**	<0.00010	<0.20	**0.0064**	<0.00020	<0.00060	<0.00010	**6.3**
M-54	Background	Coconino Sandstone	02/21/2017	CH-CCR-M54-217	<0.0010	**0.0072**	**0.027**	<0.0010	<0.00010	<0.00050	<0.00050	**1.3**	<0.00050	<0.20	**0.0056**	<0.00020	<0.00050	<0.00010	**6.6**
M-54	Background	Coconino Sandstone	04/11/2017	CH-CCR-M54-41117	<0.0010	**0.0077**	**0.028**	<0.0010	<0.00010	<0.00050	<0.00050	**1.3**	<0.00050	<0.20	**0.0058**	<0.00020	<0.00050	<0.00010	**8.1**
M-54	Background	Coconino Sandstone	04/24/2017	CH-CCR-M54-42417	<0.0010	**0.0075**	**0.027**	<0.0010	<0.00010	<0.00050	<0.00050	**1.3**	<0.00050	<0.20	**0.0058**	<0.00020	<0.00050	<0.00010	**5.6**
M-54	Background	Coconino Sandstone	05/19/2017	CH-CCR-M54-51917	<0.0010	**0.0068**	**0.026**	<0.0010	<0.00010	<0.00050	<0.00050	**1.3**	<0.00050	<0.20	**0.0054**	<0.00020	<0.00050	<0.00010	**8.4**
M-54	Background	Coconino Sandstone	05/25/2017	CH-CCR-M54-52517	<0.0010	**0.0079**	**0.026**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0056**	<0.00020	<0.00050	<0.00010	**9.6**
M-54	Background	Coconino Sandstone	06/29/2017	CH-CCR-M54-62917	<0.0010	**0.0074**	**0.027**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0059**	<0.00020	<0.00050	<0.00010	**9.0**
M-54	Background	Coconino Sandstone	07/29/2017	CH-CCR-M54-72917	<0.0020	**0.0074**	**0.027**	<0.0010	<0.00020	<0.0010	<0.0010	**1.4**	<0.0010	<0.20	**0.0057**	<0.00020	<0.0010	<0.00020	**6.5**
M-54	Background	Coconino Sandstone	09/05/2017	CH-CCR-M54-90517	<0.0040	**0.0076**	**0.028**	<0.0010	<0.00040	<0.0040	<0.0020	**1.4**	<0.0020	<0.20	**0.0059**	<0.00020	<0.0020	<0.00040	**6.4**
M-54	Background	Coconino Sandstone	12/07/2017	CH-CCR-M54-120717	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	05/25/2018	CH-CCR-M-54-52518	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	10/26/2018	CH-CCR-M-54-102618	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	04/09/2019	CH-CCR-M54-40919	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	10/22/2019	CH-CCR-M54-102219	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	05/07/2020	CH-CCR-M54-0520	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	10/21/2020	CH-CCR-M54-1020	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	04/16/2021	CH-CCR-M54-0421	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	10/24/2021	CH-CCR-M54-1021	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	10/24/2021	re-analysis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	11/19/2021	CH-CCR-M54-1121	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	05/13/2022	CH-CCR-M54-0522	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	05/13/2022	CH-CCR-SS01-0522	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	08/31/2022	CH-CCR-M54-0822	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	08/31/2022	CH-CCR-FD01-0822	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	10/20/2022	CH-CCR-M54-1022	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	1/26/2023	CH-CCR-M54-0123	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	01/26/2023	*DUP* CH-CCR-FD01-0123	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	04/13/2023	CH-CCR-M54-0423	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	11/21/2023	CH-CCR-M54-1023	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	04/30/2024	CH-CCR-M54-0424	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	11/11/2024	CH-CCR-M54-1024	--	--	--	--	--	--	--	**1.35**	--	--	--	--	--	--	--

Table C-11
Groundwater Sampling Results for the BAM Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents															
				Constituent:	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Molybdenum	Mercury	Selenium	Thallium	Total Radium
				Filtered:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAM BTV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**															
M-59	Downgradient	Coconino Sandstone	12/03/2015	7803	<0.0025	**0.0049**	**0.051**	<0.0010	<0.00010	<0.00050	**0.0013**	**1.3**	<0.00050	<0.20	**0.0063**	<0.00020	**0.00013**	<0.00010	**5.4**
M-59	Downgradient	Coconino Sandstone	03/10/2016	CH-M-59-0316	<0.015	**0.0069 j**	**0.032**	<0.0010	<0.00046	<0.0087	<0.0013	**1.3**	<0.0044	<0.20	**0.0058 j**	<0.00020	<0.0015	<0.00026	**5.4**
M-59	Downgradient	Coconino Sandstone	05/20/2016	CH-CCR-M59-516	<0.00010	**0.0073**	**0.031**	<0.0010	<0.00010	**0.00063**	**0.00085**	**1.4**	**0.00068**	<0.20	**0.0059**	<0.00020	<0.00050	<0.00010	**7.4**
M-59	Downgradient	Coconino Sandstone	08/27/2016	CH-CCR-M59-816	<0.00010	**0.0082**	**0.030**	<0.0010	<0.00010	<0.00050	**0.00062**	**1.4**	<0.00050	<0.20	**0.0065**	<0.00020	<0.00050	<0.00010	**8.1**
M-59	Downgradient	Coconino Sandstone	09/22/2016	CH-CCR-M59-916	<0.00050	**0.0085**	**0.028**	<0.0010	<0.00010	<0.00050	**0.00055**	**1.4**	<0.00010	<0.20	**0.0063**	<0.00020	<0.00060	<0.00010	**7.2**
M-59	Downgradient	Coconino Sandstone	02/22/2017	CH-CCR-M59-217	<0.0010	**0.0081**	**0.025**	<0.0010	<0.00010	<0.00050	<0.00050	**1.3**	<0.00050	<0.20	**0.0058**	<0.00020	<0.00050	<0.00010	**7.7**
M-59	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-M59-41117	<0.0010	**0.0083**	**0.025**	<0.0010	<0.00010	<0.00050	<0.00050	**1.3**	<0.00050	<0.20	**0.0063**	<0.00020	<0.00050	<0.00010	**7.7**
M-59	Downgradient	Coconino Sandstone	04/24/2017	CH-CCR-M59-42417	<0.0010	**0.0082**	**0.025**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0058**	<0.00020	<0.00050	<0.00010	**8.0**
M-59	Downgradient	Coconino Sandstone	05/19/2017	CH-CCR-M59-51917	<0.0010	**0.0077**	**0.023**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0056**	<0.00020	<0.00050	<0.00010	**7.1**
M-59	Downgradient	Coconino Sandstone	05/25/2017	CH-CCR-M59-52517	<0.0010	**0.0073**	**0.024**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	**0.00061**	<0.20	**0.0059**	<0.00020	<0.00050	<0.00010	**8.0**
M-59	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-M59-62917	<0.0010	**0.0086**	**0.025**	<0.0010	<0.00010	<0.00050	<0.00050	**1.5**	<0.00050	<0.20	**0.0058**	<0.00020	<0.00050	<0.00010	**9.0**
M-59	Downgradient	Coconino Sandstone	07/29/2017	CH-CCR-M59-72917	<0.0020	**0.0085**	**0.025**	<0.0010	<0.00020	<0.0010	<0.0010	**1.5**	<0.0010	<0.20	**0.0058**	<0.00020	<0.0010	<0.00020	**7.9**
M-59	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-M59-90517	<0.0040	**0.0085**	**0.027**	<0.0010	<0.00040	<0.0040	<0.0020	**1.4**	<0.0020	<0.20	**0.0062**	<0.00020	<0.0020	<0.00040	**7.6**
M-59	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-M59-120717	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	05/25/2018	CH-CCR-M-59-52518	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/26/2018	CH-CCR-M-59-102618	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	04/09/2019	CH-CCR-M59-40919	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/23/2019	CH-CCR-M59-102319	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	05/07/2020	CH-CCR-M59-0520	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/21/2020	CH-CCR-M59-1020	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	01/13/2021	--	--	--	--	--	--	--	--	--	--	**0.051**	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-M59-0421	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-FD01-0421	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-M59-1021	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-M59-1121	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-M59-0522	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	08/30/2022	CH-CCR-M59-0822	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/19/2022	CH-CCR-M59-1022	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	04/12/2023	CH-CCR-M59-0423	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	04/12/2023	*DUP* CH-CCR-FD01-0423	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	11/21/2023	CH-CCR-M59-1023	--	--	--	--	--	--	--	**1.3 J**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	11/21/2023	*DUP* CH-CCR-FD01-1023	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	04/30/2024	CH-CCR-M59-0424	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	04/30/2024	*DUP* CH-CCR-FD01-0424	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	07/01/2024	CH-CCR-M59-0724	--	--	--	--	--	--	--	**--**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-M59-1024	--	--	--	--	--	--	--	**1.46**	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-FD01-1024	--	--	--	--	--	--	--	**1.51**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	12/03/2015	7801	<0.0025	**0.0078**	**0.031**	<0.0010	<0.00010	<0.00050	**0.00074**	**1.3**	<0.00050	<0.20	**0.0058**	<0.00020	**0.00016**	<0.00010	**7.8**
M-60	Downgradient	Coconino Sandstone	03/09/2016	CH-M-60A-0316	<0.015	**0.0084 j**	**0.025**	<0.0010	<0.00046	<0.0087	<0.0013	**1.4**	<0.0044	<0.20	**0.0058 j**	<0.00020	<0.0015	<0.00026	**2.6**
M-60	Downgradient	Coconino Sandstone	05/20/2016	CH-CCR-M60-516	<0.00010	**0.0077**	**0.023**	<0.0010	<0.00010	<0.00050	<0.00050	**1.5**	<0.00050	<0.20	**0.0058**	<0.00020	<0.00050	<0.00010	**7.9**
M-60	Downgradient	Coconino Sandstone	08/27/2016	CH-CCR-M60-816	<0.00010	**0.0091**	**0.025**	<0.0010	<0.00010	<0.00050	<0.00050	**1.5**	<0.00050	<0.20	**0.0061**	<0.00020	<0.00050	<0.00010	**8.7**
M-60	Downgradient	Coconino Sandstone	09/22/2016	CH-CCR-M60-916	<0.00050	**0.0088**	**0.023**	<0.0010	<0.00010	<0.00050	**0.00034**	**1.4**	**0.00011**	<0.20	**0.0066**	<0.00020	<0.00060	**0.00010**	**8.3**
M-60	Downgradient	Coconino Sandstone	02/22/2017	CH-CCR-M60-217	<0.0010	**0.0084**	**0.022**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0058**	<0.00020	<0.00050	<0.00010	**8.2**
M-60	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-M60-41117	<0.0010	**0.0087**	**0.021**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0061**	<0.00020	<0.00050	<0.00010	**6.9**
M-60	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-FD01-41117	<0.0010	**0.0084**	**0.021**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0059**	<0.00020	<0.00050	<0.00010	**8.8**
M-60	Downgradient	Coconino Sandstone	04/24/2017	CH-CCR-M60-42417	<0.0010	**0.0087**	**0.022**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0059**	<0.00020	<0.00050	<0.00010	**7.2**
M-60	Downgradient	Coconino Sandstone	05/19/2017	CH-CCR-M60-51917	<0.0010	**0.0079**	**0.020**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0054**	<0.00020	<0.00050	<0.00010	**8.6**
M-60	Downgradient	Coconino Sandstone	05/25/2017	CH-CCR-M60-52517	<0.0010	**0.0097**	**0.022**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0060**	<0.00020	<0.00050	<0.00010	**10.2**

Table C-11
Groundwater Sampling Results for the BAM Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents															
				Constituent:	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Molybdenum	Mercury	Selenium	Thallium	Total Radium
				Filtered:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAM BTV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**															
M-60	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-M60-62917	<0.0010	**0.0086**	**0.022**	<0.0010	<0.00010	<0.00050	<0.00050	**1.5**	<0.00050	<0.20	**0.0064**	<0.00020	<0.00050	<0.00010	**8.1**
M-60	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-FD01-62917	<0.0010	**0.0086**	**0.021**	<0.0010	<0.00010	<0.00050	<0.00050	**1.5**	**0.00090**	<0.20	**0.0063**	<0.00020	<0.00050	<0.00010	**9.0**
M-60	Downgradient	Coconino Sandstone	07/29/2017	CH-CCR-M60-72917	<0.0020	**0.010**	**0.027**	<0.0010	**0.00037**	<0.0010	<0.0010	**1.5**	<0.0010	<0.20	**0.0075**	<0.00020	<0.0010	<0.00020	**8.4**
M-60	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-M60-90517	<0.0040	**0.0097**	**0.024**	<0.0010	<0.00040	<0.0040	<0.0020	**1.5**	<0.0020	<0.20	**0.0065**	<0.00020	<0.0020	<0.00040	**8.5**
M-60	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-FD01-90517	<0.0040	**0.0095**	**0.023**	<0.0010	<0.00040	<0.0040	<0.0020	**1.5**	<0.0020	<0.20	**0.0063**	<0.00020	<0.0020	<0.00040	**7.6**
M-60	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-M60-120717	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-FD01-120717	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/25/2018	CH-CCR-M-60-52518	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/26/2018	CH-CCR-M-60-102618	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	04/09/2019	CH-CCR-M60-40919	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/22/2019	CH-CCR-M60-102219	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/07/2020	CH-CCR-M60-0520	--	--	--	--	--	--	--	**1.7**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/21/2020	CH-CCR-M60-1020	--	--	--	--	--	--	--	**1.4 J**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/21/2020	*DUP* CH-CCR-FD01-1020	--	--	--	--	--	--	--	**1.5 J**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	01/13/2021	CH-CCR-M60-011321	--	--	--	--	--	--	--	--	--	**0.042**	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-M60-0421	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	07/07/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-M60-1021	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-M60-1121	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-M60-0522	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/13/2022	*DUP* CH-CCR-FD01-0522	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-SS02-0522	--	--	--	--	--	--	--	**1.57**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	08/31/2022	CH-CCR-M60-0822	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/20/2022	CH-CCR-M60-1022	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	01/26/2023	CH-CCR-M60-0123	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/10/2023	CH-CCR-M60-0523	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	11/20/2023	CH-CCR-M60-1023	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/28/2024	CH-CCR-M60-0424	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	07/01/2024	CH-CCR-M60-0724	--	--	--	--	--	--	--	**--**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	07/01/2024	*DUP* CH-CCR-FD01-0724	--	--	--	--	--	--	--	**--**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	12/10/2024	CH-CCR-M60-1224	--	--	--	--	--	--	--	**1.35 J**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	12/10/2024	CH-CCR-FD03-1224	--	--	--	--	--	--	--	**1.44 J**	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	01/16/2025	CH-CCR-M60-0125	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	12/03/2015	7802	<0.0025	**0.0063**	**0.039**	<0.0010	<0.00010	**0.00093**	**0.00098**	**1.3**	<0.00050	<0.20	**0.0064**	<0.00020	**0.00019**	<0.00010	**7.1**
M-61	Downgradient	Coconino Sandstone	03/10/2016	CH-M-61-0316	<0.015	**0.010**	**0.030**	<0.0010	<0.00046	<0.0087	<0.0013	**1.4**	<0.0044	<0.20	**0.0063 j**	<0.00020	<0.0015	<0.00026	**7.3**
M-61	Downgradient	Coconino Sandstone	05/20/2016	CH-CCR-M61-516	<0.00010	**0.0081**	**0.025**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0053**	<0.00020	<0.00050	<0.00010	**7.7**
M-61	Downgradient	Coconino Sandstone	08/27/2016	CH-CCR-M61-816	<0.00010	**0.0091**	**0.027**	<0.0010	<0.00010	<0.00050	<0.00050	**1.5**	<0.00050	<0.20	**0.0061**	<0.00020	<0.00050	<0.00010	**9.8**
M-61	Downgradient	Coconino Sandstone	09/22/2016	CH-CCR-M61-916	<0.00050	**0.0086**	**0.023**	<0.0010	<0.00010	<0.00050	**0.00037**	**1.4**	<0.00010	<0.20	**0.0059**	<0.00020	<0.00060	<0.00010	**8.3**
M-61	Downgradient	Coconino Sandstone	02/22/2017	CH-CCR-M61-217	<0.0010	**0.0079**	**0.023**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0057**	<0.00020	<0.00050	<0.00010	**7.5**
M-61	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-M61-41117	<0.0010	**0.012**	**0.023**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0059**	<0.00020	<0.00050	<0.00010	**7.8**
M-61	Downgradient	Coconino Sandstone	04/24/2017	CH-CCR-M61-42417	<0.0010	**0.0084**	**0.022**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0056**	<0.00020	<0.00050	<0.00010	**8.6**
M-61	Downgradient	Coconino Sandstone	05/19/2017	CH-CCR-M61-51917	<0.0010	**0.0077**	**0.020**	<0.0010	<0.00010	<0.00050	<0.00050	**1.3**	<0.00050	<0.20	**0.0052**	<0.00020	<0.00050	<0.00010	**8.6**
M-61	Downgradient	Coconino Sandstone	05/25/2017	CH-CCR-M61-52517	<0.0010	**0.0098**	**0.023**	<0.0010	<0.00010	<0.00050	<0.00050	**1.4**	<0.00050	<0.20	**0.0062**	<0.00020	<0.00050	<0.00010	**8.7**
M-61	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-M61-62917	<0.0010	**0.0086**	**0.022**	<0.0010	<0.00010	<0.00050	<0.00050	**1.5**	<0.00050	<0.20	**0.0056**	<0.00020	<0.00050	<0.00010	**8.1**
M-61	Downgradient	Coconino Sandstone	07/29/2017	CH-CCR-M61-72917	<0.0020	**0.0086**	**0.022**	<0.0010	<0.00020	<0.0010	<0.0010	**1.5**	<0.0010	<0.20	**0.0056**	<0.00020	<0.0010	<0.00020	**8.0**
M-61	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-M61-90517	<0.0040	**0.0096**	**0.026**	<0.0010	<0.00040	<0.0040	<0.0020	**1.5**	<0.0020	<0.20	**0.0064**	<0.00020	<0.0020	<0.00040	**8.3**
M-61	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-M61-120717	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	05/25/2018	CH-CCR-M-61-52518	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--

Table C-11
Groundwater Sampling Results for the BAM Monitoring Wells - Appendix IV Constituents

					Appendix IV Constituents														
				Constituent:	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Molybdenum	Mercury	Selenium	Thallium	Total Radium
				Filtered:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
				BAM BTV	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**															
M-61	Downgradient	Coconino Sandstone	10/26/2018	CH-CCR-M-61-102618	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	04/09/2019	CH-CCR-M61-40919	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/22/2019	CH-CCR-M61-102219	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	05/07/2020	CH-CCR-M61-0520	--	--	--	--	--	--	--	**1.6**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	05/07/2020	*DUP* CH-CCR-FD01-0520	--	--	--	--	--	--	--	**1.7**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/21/2020	CH-CCR-M61-1020	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	01/13/2021	CH-CCR-M61-011321	--	--	--	--	--	--	--	--	--	**0.045**	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-M61-0421	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-M61-1021	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-FD01-1021	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-M61-1121	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-FD01-1121	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-M61-0522	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	08/31/2022	CH-CCR-M61-0822	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/19/2022	CH-CCR-M61-1022	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/19/2022	*DUP* CH-CCR-FD01-1022	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	04/12/2023	CH-CCR-M61-0423	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	11/20/2023	CH-CCR-M61-1023	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	04/30/2024	CH-CCR-M61-0424	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-M61-1024	--	--	--	--	--	--	--	**1.55**	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-FD02-1024	--	--	--	--	--	--	--	**1.27**	--	--	--	--	--	--	--

Notes:
BTV exceedances are shown in grey shaded cells.
Duplicate sample dates under the same locations are either field duplicates or are instances of samples with multiple filed/lab sample IDs on the same date.
*Fluoride BTV for M-60 is 1.7 mg/L
**Fluoride BTV for M-61 is 1.6 mg/L

Abbreviations and Data Qualifiers:
< = less than
BTV = Background Threshold Value
CCR = Coal Combustion Residual
ID = Identification
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.]
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units

Table C-12
Groundwater Sampling Results for the BAM Monitoring Wells - Additional Analyses

					Additional Analyses								
				Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Magnesium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium
				Filtered:	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L
				BAM BTV	--	--	--	--	--	--	--	--	--
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**									
M-54	Background	Coconino Sandstone	12/03/2015	7799	**220**	<6.0	<6.0	**36**	**4.5**	**2.6**	**1.4**	**10**	**1,000**
M-54	Background	Coconino Sandstone	03/10/2016	CH-M-54-0316	**--**	**--**	**--**	**--**	**--**	**3.6**	**1.9**	**--**	**--**
M-54	Background	Coconino Sandstone	05/20/2016	CH-CCR-M54-516	**210**	<6.0	<6.0	**34**	**4.1**	**3.6**	**2.7**	**8.8**	**990**
M-54	Background	Coconino Sandstone	08/27/2016	CH-CCR-M54-816	**--**	**--**	**--**	**--**	**--**	**4.3**	**3.2**	**--**	**--**
M-54	Background	Coconino Sandstone	09/22/2016	CH-CCR-M54-916	**--**	**--**	**--**	**--**	**--**	**3.7**	**2.6**	**--**	**--**
M-54	Background	Coconino Sandstone	02/21/2017	CH-CCR-M54-217	**210**	<6.0	<6.0	**36**	**4.4**	**4.1**	**2.5**	**--**	**1,000**
M-54	Background	Coconino Sandstone	04/11/2017	CH-CCR-M54-41117	**220**	<6.0	<6.0	**34**	**4.1**	**5.1**	**3.0**	**--**	**950**
M-54	Background	Coconino Sandstone	04/24/2017	CH-CCR-M54-42417	**220**	<6.0	<6.0	**35**	**4.3**	**3.3**	**2.3**	**--**	**1,000**
M-54	Background	Coconino Sandstone	05/19/2017	CH-CCR-M54-51917	**220**	<6.0	<6.0	**35**	**4.0**	**5.7**	**2.7**	**--**	**950**
M-54	Background	Coconino Sandstone	05/25/2017	CH-CCR-M54-52517	**220**	<6.0	<6.0	**36**	**4.2**	**5.9**	**3.7**	**--**	**1,000**
M-54	Background	Coconino Sandstone	06/29/2017	CH-CCR-M54-62917	**220**	<6.0	<6.0	**35**	**4.1**	**6.1**	**2.9**	**--**	**970**
M-54	Background	Coconino Sandstone	07/29/2017	CH-CCR-M54-72917	**220**	<6.0	<6.0	**37**	**4.2**	**3.8**	**2.7**	**--**	**990**
M-54	Background	Coconino Sandstone	09/05/2017	CH-CCR-M54-90517	**220**	<6.0	<6.0	**36**	**4.2**	**3.9**	**2.5**	**--**	**1,000**
M-54	Background	Coconino Sandstone	12/07/2017	CH-CCR-M54-120717	**220**	<6.0	<6.0	**33**	**4.1**	**--**	**--**	**--**	**940**
M-54	Background	Coconino Sandstone	05/25/2018	CH-CCR-M-54-52518	**220**	<6.0	<6.0	**33**	**3.9**	**--**	**--**	**--**	**920**
M-54	Background	Coconino Sandstone	10/26/2018	CH-CCR-M-54-102618	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	04/09/2019	CH-CCR-M54-40919	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	10/22/2019	CH-CCR-M54-102219	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	05/07/2020	CH-CCR-M54-0520	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	10/21/2020	CH-CCR-M54-1020	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	04/16/2021	CH-CCR-M54-0421	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	10/24/2021	CH-CCR-M54-1021	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	10/24/2021	re-analysis	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	11/19/2021	CH-CCR-M54-1121	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	05/13/2022	CH-CCR-M54-0522	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	05/13/2022	CH-CCR-SS01-0522	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	08/31/2022	CH-CCR-M54-0822	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	08/31/2022	CH-CCR-FD01-0822	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	10/20/2022	CH-CCR-M54-1022	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	1/26/2023	CH-CCR-M54-0123	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	01/26/2023	*DUP* CH-CCR-FD01-0123	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	04/13/2023	CH-CCR-M54-0423	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-54	Background	Coconino Sandstone	11/21/2023	CH-CCR-M54-1023	--	--	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	04/30/2024	CH-CCR-M54-0424	--	--	--	--	--	--	--	--	--
M-54	Background	Coconino Sandstone	11/11/2024	CH-CCR-M54-1024	--	--	--	--	--	--	--	--	--

Table C-12
Groundwater Sampling Results for the BAM Monitoring Wells - Additional Analyses

					Additional Analyses								
				Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Magnesium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium
				Filtered:	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L
				BAM BTV	--	--	--	--	--	--	--	--	--
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**									
M-59	Downgradient	Coconino Sandstone	12/03/2015	7803	**210**	<6.0	<6.0	**32**	**4.3**	**3.2**	**2.2**	**9.5**	**910**
M-59	Downgradient	Coconino Sandstone	03/10/2016	CH-M-59-0316	**--**	**--**	**--**	**--**	**--**	**3.1**	**2.3**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	05/20/2016	CH-CCR-M59-516	**210**	<6.0	<6.0	**31**	**4.0**	**4.6**	**2.8**	**8.9**	**870**
M-59	Downgradient	Coconino Sandstone	08/27/2016	CH-CCR-M59-816	**--**	**--**	**--**	**--**	**--**	**5.2**	**2.9**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	09/22/2016	CH-CCR-M59-916	**--**	**--**	**--**	**--**	**--**	**4.2**	**3.0**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	02/22/2017	CH-CCR-M59-217	**210**	<6.0	<6.0	**31**	**4.1**	**5.2**	**2.5**	**--**	**880**
M-59	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-M59-41117	**220**	<6.0	<6.0	**31**	**4.0**	**5.4**	**2.3**	**--**	**870**
M-59	Downgradient	Coconino Sandstone	04/24/2017	CH-CCR-M59-42417	**220**	<6.0	<6.0	**32**	**4.2**	**4.6**	**3.4**	**--**	**950**
M-59	Downgradient	Coconino Sandstone	05/19/2017	CH-CCR-M59-51917	**220**	<6.0	<6.0	**32**	**4.2**	**5.1**	**2.0**	**--**	**920**
M-59	Downgradient	Coconino Sandstone	05/25/2017	CH-CCR-M59-52517	**220**	<6.0	<6.0	**32**	**4.1**	**4.9**	**3.1**	**--**	**910**
M-59	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-M59-62917	**220**	<6.0	<6.0	**31**	**3.9**	**5.2**	**3.8**	**--**	**860**
M-59	Downgradient	Coconino Sandstone	07/29/2017	CH-CCR-M59-72917	**220**	<6.0	<6.0	**33**	**4.1**	**4.5**	**3.4**	**--**	**900**
M-59	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-M59-90517	**220**	<6.0	<6.0	**32**	**4.1**	**4.6**	**3.0**	**--**	**910**
M-59	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-M59-120717	**220**	<6.0	<6.0	**30**	**3.9**	**--**	**--**	**--**	**860**
M-59	Downgradient	Coconino Sandstone	05/25/2018	CH-CCR-M-59-52518	**220**	<6.0	<6.0	**30**	**3.9**	**--**	**--**	**--**	**850**
M-59	Downgradient	Coconino Sandstone	10/26/2018	CH-CCR-M-59-102618	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	04/09/2019	CH-CCR-M59-40919	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	10/23/2019	CH-CCR-M59-102319	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	05/07/2020	CH-CCR-M59-0520	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	10/21/2020	CH-CCR-M59-1020	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	01/13/2021	--	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-M59-0421	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-FD01-0421	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-M59-1021	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-M59-1121	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-M59-0522	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	08/30/2022	CH-CCR-M59-0822	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	10/19/2022	CH-CCR-M59-1022	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	04/12/2023	CH-CCR-M59-0423	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	04/12/2023	*DUP* CH-CCR-FD01-0423	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
M-59	Downgradient	Coconino Sandstone	11/21/2023	CH-CCR-M59-1023	--	--	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	11/21/2023	*DUP* CH-CCR-FD01-1023	--	--	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	04/30/2024	CH-CCR-M59-0424	--	--	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	04/30/2024	*DUP* CH-CCR-FD01-0424	--	--	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	07/01/2024	CH-CCR-M59-0724	--	--	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-M59-1024	--	--	--	--	--	--	--	--	--
M-59	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-FD01-1024	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	12/03/2015	7801	**210**	<6.0	<6.0	**32**	**4.2**	**4.0**	**3.8**	**9.4**	**960**
M-60	Downgradient	Coconino Sandstone	03/09/2016	CH-M-60A-0316	**--**	**--**	**--**	**--**	**--**	<0.2	**2.6**	**--**	**--**
M-60	Downgradient	Coconino Sandstone	05/20/2016	CH-CCR-M60-516	**210**	<6.0	<6.0	**30**	**3.9**	**4.2**	**3.7**	**8.7**	**950**
M-60	Downgradient	Coconino Sandstone	08/27/2016	CH-CCR-M60-816	**--**	**--**	**--**	**--**	**--**	**5.4**	**3.3**	**--**	**--**
M-60	Downgradient	Coconino Sandstone	09/22/2016	CH-CCR-M60-916	**--**	**--**	**--**	**--**	**--**	**5.2**	**3.1**	**--**	**--**
M-60	Downgradient	Coconino Sandstone	02/22/2017	CH-CCR-M60-217	**210**	<6.0	<6.0	**31**	**4.2**	**4.3**	**3.9**	**--**	**960**
M-60	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-M60-41117	**220**	<6.0	<6.0	**29**	**3.8**	**4.4**	**2.5**	**--**	**890**
M-60	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-FD01-41117	**220**	<6.0	<6.0	**29**	**3.7**	**4.8**	**4.0**	**--**	**880**
M-60	Downgradient	Coconino Sandstone	04/24/2017	CH-CCR-M60-42417	**220**	<6.0	<6.0	**32**	**4.1**	**4.8**	**2.4**	**--**	**970**
M-60	Downgradient	Coconino Sandstone	05/19/2017	CH-CCR-M60-51917	**220**	<6.0	<6.0	**32**	**4.0**	**6.1**	**2.5**	**--**	**950**

Table C-12
Groundwater Sampling Results for the BAM Monitoring Wells - Additional Analyses

					Additional Analyses								
				Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Magnesium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium
				Filtered:	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L
				BAM BTV	--	--	--	--	--	--	--	--	--
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**									
M-60	Downgradient	Coconino Sandstone	05/25/2017	CH-CCR-M60-52517	**220**	<6.0	<6.0	**31**	**3.9**	**4.8**	**5.4**	--	**950**
M-60	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-M60-62917	**220**	<6.0	<6.0	**31**	**3.8**	**5.0**	**3.1**	--	**910**
M-60	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-FD01-62917	**220**	<6.0	<6.0	**30**	**3.9**	**4.8**	**4.2**	--	**930**
M-60	Downgradient	Coconino Sandstone	07/29/2017	CH-CCR-M60-72917	**220**	<6.0	<6.0	**31**	**3.8**	**5.0**	**3.4**	--	**900**
M-60	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-M60-90517	**220**	<6.0	<6.0	**32**	**4.2**	**4.9**	**3.6**	--	**970**
M-60	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-FD01-90517	**220**	<6.0	<6.0	**31**	**4.0**	**4.4**	**3.2**	--	**930**
M-60	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-M60-120717	**220**	<6.0	<6.0	**29**	**3.8**	--	--	--	**890**
M-60	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-FD01-120717	**220**	<6.0	<6.0	**29**	**3.9**	--	--	--	**900**
M-60	Downgradient	Coconino Sandstone	05/25/2018	CH-CCR-M-60-52518	**230**	<6.0	<6.0	**29**	**3.6**	--	--	--	**870**
M-60	Downgradient	Coconino Sandstone	10/26/2018	CH-CCR-M-60-102618	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	04/09/2019	CH-CCR-M60-40919	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/22/2019	CH-CCR-M60-102219	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/07/2020	CH-CCR-M60-0520	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/21/2020	CH-CCR-M60-1020	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/21/2020	*DUP* CH-CCR-FD01-1020	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	01/13/2021	CH-CCR-M60-011321	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-M60-0421	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	07/07/2021	--	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-M60-1021	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-M60-1121	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-M60-0522	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/13/2022	*DUP* CH-CCR-FD01-0522	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-SS02-0522	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	08/31/2022	CH-CCR-M60-0822	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	10/20/2022	CH-CCR-M60-1022	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	01/26/2023	CH-CCR-M60-0123	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/10/2023	CH-CCR-M60-0523	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	11/20/2023	CH-CCR-M60-1023	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	05/28/2024	CH-CCR-M60-0424	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	07/01/2024	CH-CCR-M60-0724	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	07/01/2024	*DUP* CH-CCR-FD01-0724	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	12/10/2024	CH-CCR-M60-1224	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	12/10/2024	CH-CCR-FD03-1224	--	--	--	--	--	--	--	--	--
M-60	Downgradient	Coconino Sandstone	01/16/2025	CH-CCR-M60-0125	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	12/03/2015	7802	**210**	<6.0	<6.0	**33**	**4.0**	**3.8**	**3.3**	**9.3**	**950**
M-61	Downgradient	Coconino Sandstone	03/10/2016	CH-M-61-0316	--	--	--	--	--	**4.5**	**2.8**	--	--
M-61	Downgradient	Coconino Sandstone	05/20/2016	CH-CCR-M61-516	**210**	<6.0	<6.0	**31**	**3.7**	**4.3**	**3.4**	**8.8**	**890**
M-61	Downgradient	Coconino Sandstone	08/27/2016	CH-CCR-M61-816	--	--	--	--	--	**5.7**	**4.1**	--	--
M-61	Downgradient	Coconino Sandstone	09/22/2016	CH-CCR-M61-916	--	--	--	--	--	**5.2**	**3.1**	--	--
M-61	Downgradient	Coconino Sandstone	02/22/2017	CH-CCR-M61-217	**210**	<6.0	<6.0	**32**	**4.2**	**4.2**	**3.3**	--	**930**
M-61	Downgradient	Coconino Sandstone	04/11/2017	CH-CCR-M61-41117	**220**	<6.0	<6.0	**32**	**3.8**	**5.4**	**2.4**	--	**910**
M-61	Downgradient	Coconino Sandstone	04/24/2017	CH-CCR-M61-42417	**220**	<6.0	<6.0	**33**	**4.0**	**5.0**	**3.6**	--	**960**
M-61	Downgradient	Coconino Sandstone	05/19/2017	CH-CCR-M61-51917	**220**	<6.0	<6.0	**32**	**3.8**	**4.9**	**3.7**	--	**910**
M-61	Downgradient	Coconino Sandstone	05/25/2017	CH-CCR-M61-52517	**220**	<6.0	<6.0	**33**	**3.9**	**5.2**	**3.5**	--	**960**
M-61	Downgradient	Coconino Sandstone	06/29/2017	CH-CCR-M61-62917	**220**	<6.0	<6.0	**32**	**3.8**	**4.6**	**3.5**	--	**910**
M-61	Downgradient	Coconino Sandstone	07/29/2017	CH-CCR-M61-72917	**220**	<6.0	<6.0	**33**	**3.9**	**4.8**	**3.2**	--	**920**
M-61	Downgradient	Coconino Sandstone	09/05/2017	CH-CCR-M61-90517	**220**	<6.0	<6.0	**32**	**3.9**	**4.9**	**3.4**	--	**910**

Table C-12
Groundwater Sampling Results for the BAM Monitoring Wells - Additional Analyses

					Additional Analyses								
				Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Magnesium	Potassium	Radium 226	Radium 228	SiO2, Silica	Sodium
				Filtered:	N	N	N	N	N	N	N	N	N
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	mg/L	mg/L
				BAM BTV	--	--	--	--	--	--	--	--	--
Monitoring Location	**Designation**	**CCR Unit**	**Sample Date**	**Sample ID**									
M-61	Downgradient	Coconino Sandstone	12/07/2017	CH-CCR-M61-120717	**220**	<6.0	<6.0	**31**	**3.9**	--	--	--	**910**
M-61	Downgradient	Coconino Sandstone	05/25/2018	CH-CCR-M-61-52518	**230**	<6.0	<6.0	**30**	**3.6**	--	--	--	**860**
M-61	Downgradient	Coconino Sandstone	10/26/2018	CH-CCR-M-61-102618	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	04/09/2019	CH-CCR-M61-40919	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/22/2019	CH-CCR-M61-102219	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	05/07/2020	CH-CCR-M61-0520	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	05/07/2020	*DUP* CH-CCR-FD01-0520	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/21/2020	CH-CCR-M61-1020	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	01/13/2021	CH-CCR-M61-011321	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	04/16/2021	CH-CCR-M61-0421	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-M61-1021	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/24/2021	CH-CCR-FD01-1021	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/24/2021	re-analysis	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-M61-1121	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	11/19/2021	CH-CCR-FD01-1121	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	05/13/2022	CH-CCR-M61-0522	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	08/31/2022	CH-CCR-M61-0822	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/19/2022	CH-CCR-M61-1022	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/19/2022	*DUP* CH-CCR-FD01-1022	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	04/12/2023	CH-CCR-M61-0423	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	11/20/2023	CH-CCR-M61-1023	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	04/30/2024	CH-CCR-M61-0424	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-M61-1024	--	--	--	--	--	--	--	--	--
M-61	Downgradient	Coconino Sandstone	10/21/2024	CH-CCR-FD02-1024	--	--	--	--	--	--	--	--	--

Notes:
BTV exceedances are shown in grey shaded cells.
Duplicate sample dates under the same locations are either field duplicates or are instances of samples with multiple filed/lab sample IDs on the same date.
*Fluoride BTV for M-60 is 1.7 mg/L
**Fluoride BTV for M-61 is 1.6 mg/L

Abbreviations and Data Qualifiers:
< = less than
BTV = Background Threshold Value
CCR = Coal Combustion Residual
ID = Identification
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.]
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units

Table C-13
Groundwater Sampling Results for the EVAP Monitoring Wells - Appendix III, IV Constituents and Additional Analyses

			Appendix III Constituents							Appendix IV Constituents															Additional Analyses	
		Constituent:	Boron	Calcium	Chloride	Fluoride	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Total Radium	Radium 226	Radium 228
		Filtered:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
		Units:	mg/L	mg/L	mg/L	mg/L	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	pCi/L
Well ID	Sample Date	Sample ID																								
MW-80A	8/29/2024	CH-EVAP-MW80A-0824	**0.576**	**278**	**1,170**	**0.920 J**	**7.45 J**	**1,750**	**4,870**	**0.00040 J**	**0.0013**	**0.0453**	<0.00044	<0.000061	**0.0019 J**	**0.0028**	**0.92 J**	**0.00073 J**	**0.155**	<0.000074	**0.0258 J**	**0.0046 J**	<0.000051	**0.94**	**0.406 J**	**0.536 J**
MW-80A	8/29/2024	CH-EVAP-FD01-0824	**0.570**	**277**	**1,160**	**0.918 J**	**7.53 J**	**1,730**	**4,960**	**0.00033 J**	**0.0014**	**0.0506**	<0.00044	<0.000061	**0.0020 J**	**0.0030**	**0.918 J**	**0.00085 J**	**0.160**	<0.000074	**0.041 J**	**0.0029 J**	<0.000051	**1.2**	**0.930 J**	**0.312 J**
MW-80A	10/3/2024	CH-EVAP-MW80A-1024	**0.347**	**264**	**907**	**1.56**	**7.61 J**	**1,080**	**3,370**	<0.00172	**0.00196**	**0.0258**	<0.000401	<0.001	<0.000016	**0.000597 J**	**1.56**	<0.000513	**0.112**	<0.0001	**0.00598**	<0.000437	<0.000176	**0.97**	**0.333 J**	**0.639**
MW-80A	11/7/2024	CH-EVAP-MW80A-1124	**0.346**	**288**	**940**	**0.32**	**7.73 J**	**1,190**	**3,430**	<0.00044	**0.0021 J**	**0.0273**	<0.00042	<0.00015	<0.0027	<0.00048	**0.32**	<0.0009	**0.103**	<0.000074	**0.0062**	<0.00037	<0.00013	**1.4**	<0.5	**1.4**
MW-80A	12/11/2024	CH-EVAP-MW80-1224	**0.317**	**280**	**914**	<0.761	**7.59 J**	**992**	**3,300**	<0.00142	**0.00184**	**0.0295**	<0.000354	<0.000152	<0.0056	**0.000321 J**	<0.761	0.00044 J	**0.099**	<0.00013	**0.0058**	<0.000334	<0.000195	<0.8	<0.5	<0.8
MW-81A	8/28/2024	CH-EVAP-MW81A-0824	**0.512**	**600**	**3,680**	**1.09 J**	**7.45 J**	**2,840**	**10,400**	<0.00017	**0.0013**	**0.0298**	<0.00044	<0.000061	**0.0018 J**	**0.000080 J**	**1.09 J**	**0.00063 J**	**0.187**	<0.000074	**0.0433**	**0.00068 J**	<0.000051	**1.5**	**0.596**	**0.949**
MW-81A	10/3/2024	CH-EVAP-MW81A-1024	**0.448**	**721**	**4,040**	**0.879 J**	**7.48 J**	**2,930**	**11,100**	<0.00172	**0.00173**	**0.0241**	<0.000401	<0.001	<0.000016	**0.000184 J**	<7.61	<0.000513	**0.257**	<0.0001	**0.00679**	<0.000437	<0.000176	**1.4**	**0.773**	**0.59**
MW-81A	11/7/2024	CH-EVAP-MW81A-1124	**0.564**	**710**	**4,020**	<0.761	**7.71 J**	**3,430**	**11,400**	<0.00044	**0.00074 J**	**0.022**	<0.00042	<0.00015	<0.0027	<0.00048	<0.761	<0.0009	**0.264**	<0.000074	**0.0036**	<0.00037	<0.00013	**0.8**	**0.8**	<0.7
MW-81A	12/11/2024	CH-EVAP-MW81-1224	**0.435**	**746**	**4,120**	**0.592 J**	**7.42 J**	**3,220**	**10,900**	<0.00142	**0.000339 J**	**0.0211**	<0.000354	<0.000152	<0.0056	**0.000681 J**	**0.592 J**	<0.000212	**0.24**	<0.00013	**0.00266 J**	<0.000334	<0.000195	**1.4**	<0.5	**1.4**
MW-83A	8/28/2024	CH-EVAP-MW83A-0824	**0.887**	**956**	**4,070**	**0.785 J**	**7.14 J**	**2,050**	**10,700**	<0.00017	**0.0023**	**0.0463**	<0.00044	<0.000061	**0.0020 J**	**0.0049**	**0.785 J**	**0.00093 J**	**0.215**	<0.000074	**0.0246**	**0.00041 J**	<0.000051	**1.7**	**0.669**	**1.04**
MW-83A	10/3/2024	CH-EVAP-MW83A-1024	**0.465**	**2,170**	**6,720**	<0.38 UJ	**6.91 J**	**1,370**	**20,000**	<0.00172	**0.00283**	**0.0612**	<0.000401	<0.001	<0.000016	**0.0051**	<7.61	<0.000513	**0.229**	<0.0001	**0.00498 J**	<0.000437	<0.000176	**3.2**	**1.27**	**1.97**
MW-83A	11/7/2024	CH-EVAP-MW83A-1124	**0.540**	**2,260**	**3,580**	<0.761	**7.20 J**	**1,630**	**21,400**	<0.00044	**0.0035**	**0.055**	<0.00042	<0.00015	<0.0027	**0.0032**	<0.761	<0.0009	**0.205**	<0.000074	**0.0042**	<0.00037	<0.00013	**2.8**	**1.1**	**1.7**
MW-83A	12/11/2024	CH-EVAP-MW83-1224	**0.466**	**2,410**	**6,900**	<0.761	**7.04 J**	**1,480**	**16,200**	**0.00184 J**	**0.00344**	**0.0602**	<0.000354	<0.000152	<0.0056	**0.0025**	<0.761	<0.000212	**0.24**	<0.00013	**0.00373 J**	<0.000334	<0.000195	**0.9**	<0.5	**0.9**
MW-84A	8/28/2024	CH-EVAP-MW84A-0824	**0.676**	**869**	**4,450**	**1.44 J**	**7.07 J**	**2,350**	**11,400**	<0.00017	**0.0111**	**0.0334**	<0.00044	**0.000080 J**	**0.0013 J**	**0.0061**	**1.44 J**	**0.00049 J**	**0.214**	<0.000074	**0.0255**	**0.00059 J**	**0.00015 J**	**1.2**	**0.885**	**0.278 J**
MW-84A	10/3/2024	CH-EVAP-MW84A-1024	**0.698**	**946**	**4,270**	**1.08 J**	**7.13 J**	**2,220**	**12,000**	<0.00172	**0.0133**	**0.0215**	<0.000401	<0.001	<0.000016	**0.0033**	<7.61	<0.000513	**0.314**	<0.0001	**0.0055**	<0.000437	<0.000176	**1.7**	**0.741**	**0.99**
MW-84A	11/7/2024	CH-EVAP-MW84A-1124	**0.785**	**1,030**	**4,660**	**1.11 J**	**7.45 J**	**2,660**	**11,700**	<0.00044	**0.0147**	**0.0189**	<0.00042	<0.00015	<0.0027	**0.0026**	**1.11 J**	<0.0009	**0.313**	<0.000074	**0.0049**	<0.00037	<0.00013	**1.2**	<0.5	**1.2**
MW-84A	12/11/2024	CH-EVAP-MW84-1224	**0.705**	**995**	**4,650**	**0.971 J**	**7.13 J**	**2,520**	**11,400**	<0.00142	**0.0127**	**0.0188**	<0.000354	<0.000152	<0.0056	**0.00163 J**	**0.971 J**	<0.000212	**0.312**	<0.00013	**0.00532**	<0.000334	<0.000195	**1.2**	<0.5	**1.2**
MW-85C	8/29/2024	CH-EVAP-MW85C-0824	**0.181**	**112**	**652**	**0.640**	**7.56 J**	**352**	**1,660**	**0.00034 J**	**0.00089 J**	**0.0313**	<0.00044	<0.000061	**0.0019 J**	**0.0034**	**0.640**	**0.0013**	**0.029**	<0.000074	**0.0073**	**0.00086 J**	**0.000076 J**	**1.4**	**0.621**	**0.729**
MW-85C	10/3/2024	CH-EVAP-MW85C-1024	**0.176 J**	**131**	**651**	**0.242**	**7.52 J**	**200**	**1,790**	<0.00172	**0.00616**	**0.0548**	<0.000401	<0.001	<0.000016	**0.00131 J**	**0.242**	**0.000536 J**	**0.0372**	<0.0001	**0.000871 J**	**0.000457 J**	<0.000176	**1.9**	**1.13**	**0.756 J**
MW-85C	10/3/2024	CH-EVAP-FD01-1024	**0.167 J**	**129**	**663**	**0.283**	**7.51 J**	**198**	**1,690**	<0.00172	**0.0042**	**0.0537**	<0.000401	<0.001	<0.000016	**0.00149 J**	**0.283**	<0.000513	**0.0341**	<0.0001	<0.000841	<0.000437	<0.000176	**2.8**	**1.13**	**1.71 J**
MW-85C	11/11/2024	CH-EVAP-MW85C-1124	**0.170**	**105**	**669**	**0.242**	**8.56 J**	**54**	**1,600**	<0.00044	**0.0184**	**0.0561**	<0.00044	<0.00015	<0.0027	**0.00053 J**	**0.242**	<0.0009	**0.0352**	<0.000074	**0.00070 J**	<0.00037	<0.00013	**0.5 J**	**0.5**	<0.8
MW-85C	11/11/2024	CH-EVAP-FD01-1124	**0.177**	**109**	**639**	**0.252**	**8.67 J**	**55**	**1,560**	<0.00044	**0.0191**	**0.0574**	<0.00044	<0.00015	<0.0027	**0.00050 J**	**0.252**	<0.0009	**0.0305**	<0.000074	**0.00064 J**	<0.00037	<0.00013	**1.7 J**	**0.6**	**1.1**
MW-85C	12/11/2024	CH-EVAP-MW85-1224	**0.16 J**	**108**	**625**	**0.436**	**8.30 J**	**2.28 J**	**1,520**	<0.00142	**0.0211**	**0.0613**	<0.000354	<0.000152	<0.0056	**0.000286 J**	**0.436**	<0.000212	**0.0288**	<0.00013	<0.000351	<0.000334	<0.000195	**2.2**	<0.8	**2.2**
MW-85C	12/11/2024	CH-EVAP-FD01-1224	**0.169 J**	**117**	**615**	**0.452**	**8.43 J**	**1.77 J**	**1,530**	<0.00142	**0.0236**	**0.0574**	<0.000354	<0.000152	<0.0056	**0.000283 J**	**0.452**	<0.000212	**0.0345**	<0.00013	**0.000395 J**	<0.000334	<0.000195	**2.1**	<0.8	**2.1**
M-46A	04/17/2024	CH-CCR-M46A-0424	**0.65**	**850**	**4,500**	**0.42**	**7.2 J**	**2,600**	**12,000**	<0.001	**0.0085**	**0.018**	<0.001	<0.0001	**0.0018**	**0.0014**	**0.42**	<0.0005	**0.23**	<0.0002	**0.010**	**0.0012**	<0.0001	<0.8	<0.42	<0.75
M-63A	04/17/2024	CH-CCR-M63A-0424	**0.23**	**170**	**410**	<0.4	**7.6 J**	**530**	**1,900**	<0.001	**0.0023**	**0.027**	<0.001	<0.0001	<0.001	**0.0013**	<0.4	<0.0005	**0.072**	<0.0002	**0.0034**	**0.00091**	<0.0001	<0.8	<0.41	<0.75
M-63A	04/17/2024	*DUP* CH-CCR-FD05-0424	**0.23**	**170**	**390**	<0.4	**7.6 J**	**530**	**1,800**	<0.001	**0.0024**	**0.028**	<0.001	<0.0001	<0.001	**0.0013**	<0.4	<0.0005	**0.072**	<0.0002	**0.0035**	**0.00065**	<0.0001	<0.8	<0.41	<0.75
MW-65A	04/24/2024	CH-CCR-M65A-0424	**10 J**	**760 J**	**2,900**	**2.1**	**7.3 J**	**2,600**	**8,600**	<0.001 UJ	**0.0046**	**0.015 J**	**0.0058**/<0.0004	<0.0001 UJ	**0.0052**	**0.0034**	**2.1**	<0.0005 UJ	**0.49**	<0.0002	**0.12**	**0.0016**	<0.0001 UJ	**1.4**	<0.49	**1.4**
MW-66A	04/17/2024	CH-CCR-MW66A-0424	**2.0**	**710**	**3,500**	**0.57**	**7.4 J**	**2,800**	**10,000**	<0.001	**0.0052**	**0.024**	<0.001	**0.00015**	**0.020**	**0.0019**	**0.57**	**0.00084**	**0.46**	<0.0002	**0.017**	**0.0087**	**0.00011**	<0.8	<0.4	<0.75
MW-67A	04/29/2024	CH-CCR-M67A-0424	**0.37**	**560**	**1,600**	**0.64**	**7.4 J**	**1,400**	**4,700**	<0.001	**0.0051**	**0.021**	<0.001	<0.0001	**0.0013**	**0.0054**	**0.64**	<0.0005	**0.12**	<0.0002	**0.0019**	<0.005	<0.0001	<0.8	<0.49	<0.75
W-126R	04/17/2024	CH-CCR-W126R-0424	**47**	**790**	**6,100**	**4.2**	**7.5 J**	**3,600**	**17,000**	<0.005	**0.0045**	**0.010**	<0.001	<0.0005	**0.028**	**0.0049**	**4.2**	<0.0025	**0.66**	<0.0002	**0.26**	**0.0048**	<0.0005	<0.7	<0.7	<0.72

Notes:

< = Less than the reporting limit or method detection limit shown (fluoride/metals).

2024 samples were analzyed by Pace Analytical. Detected results shown in bold.

Values are compared to the FAP BTV and BTV for context. Values above the FAP BTV are shaded and above the FAP GWP are in red.

Abbreviations and Data Qualifiers:

< = less than

CCR = Coal Combustion Residual

FAP = Fly Ash Pond

ID = Identification

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

mg/L = milligrams per liter

pCi/L = Picocuries per liter

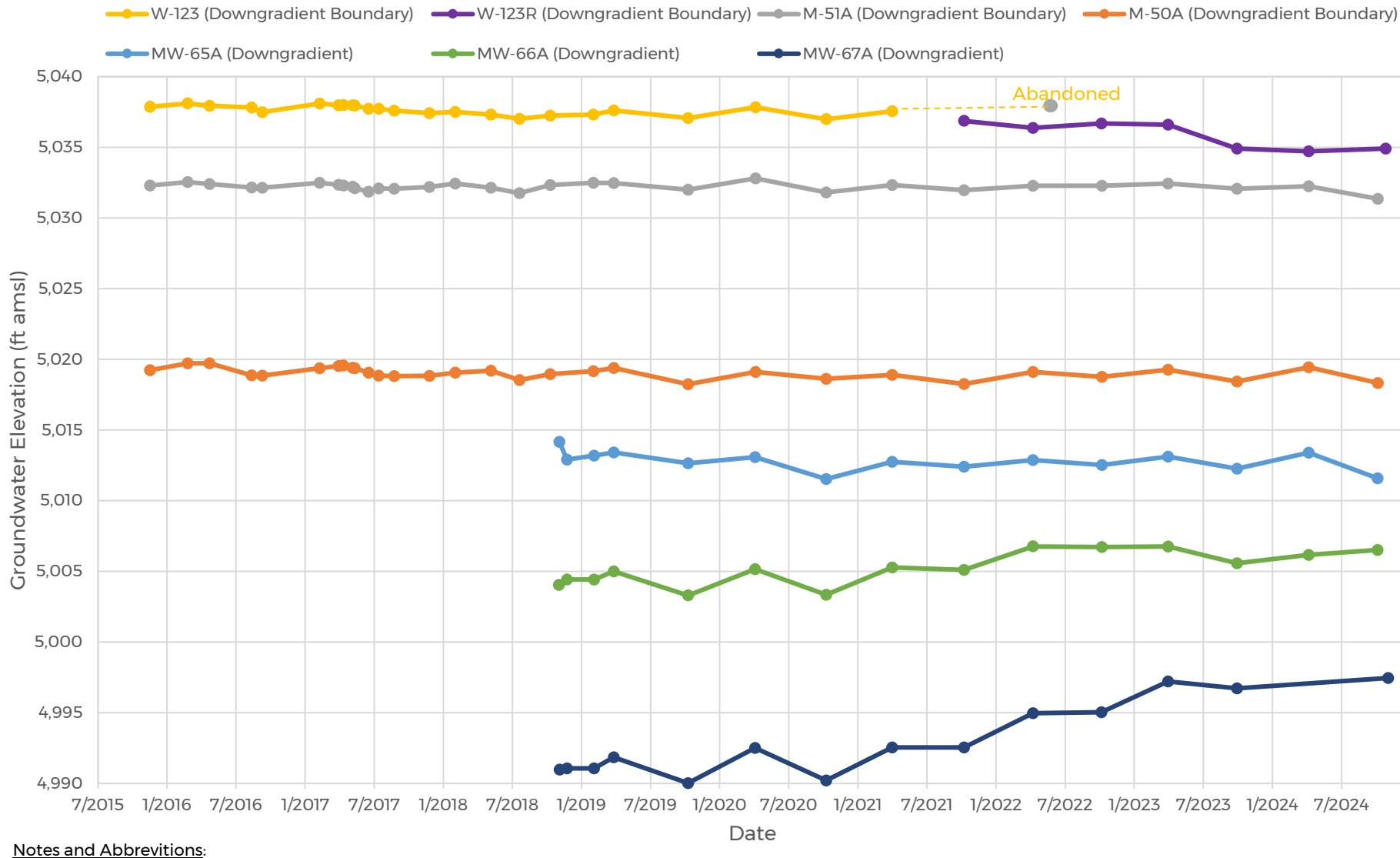
su = standard units

UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

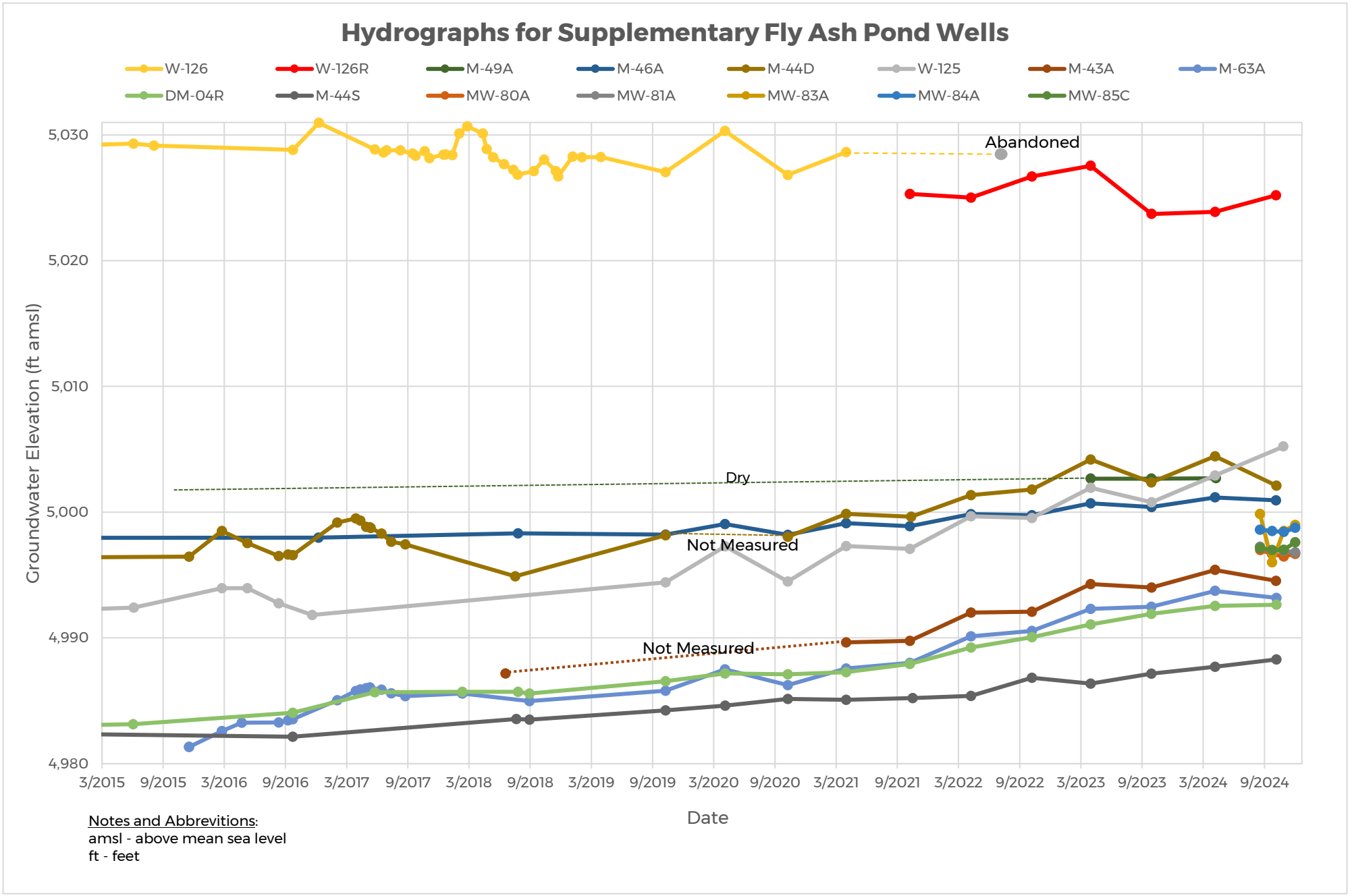
APPENDIX

D

GROUNDWATER ELEVATION DATA AND HYDROGRAPHS THROUGH 2024



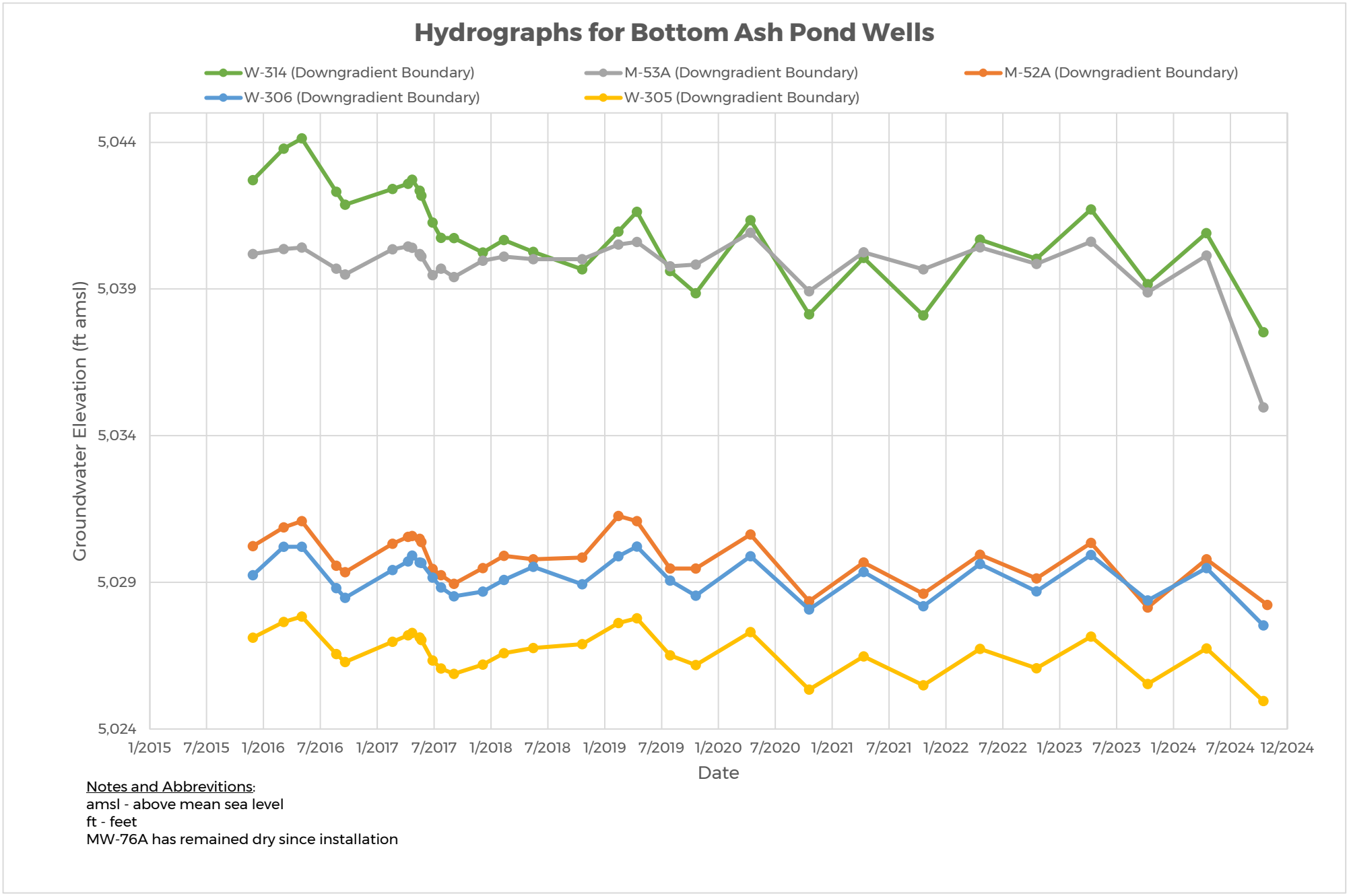
Notes and Abbrevitions:
amsl - above mean sea level
ft - feet



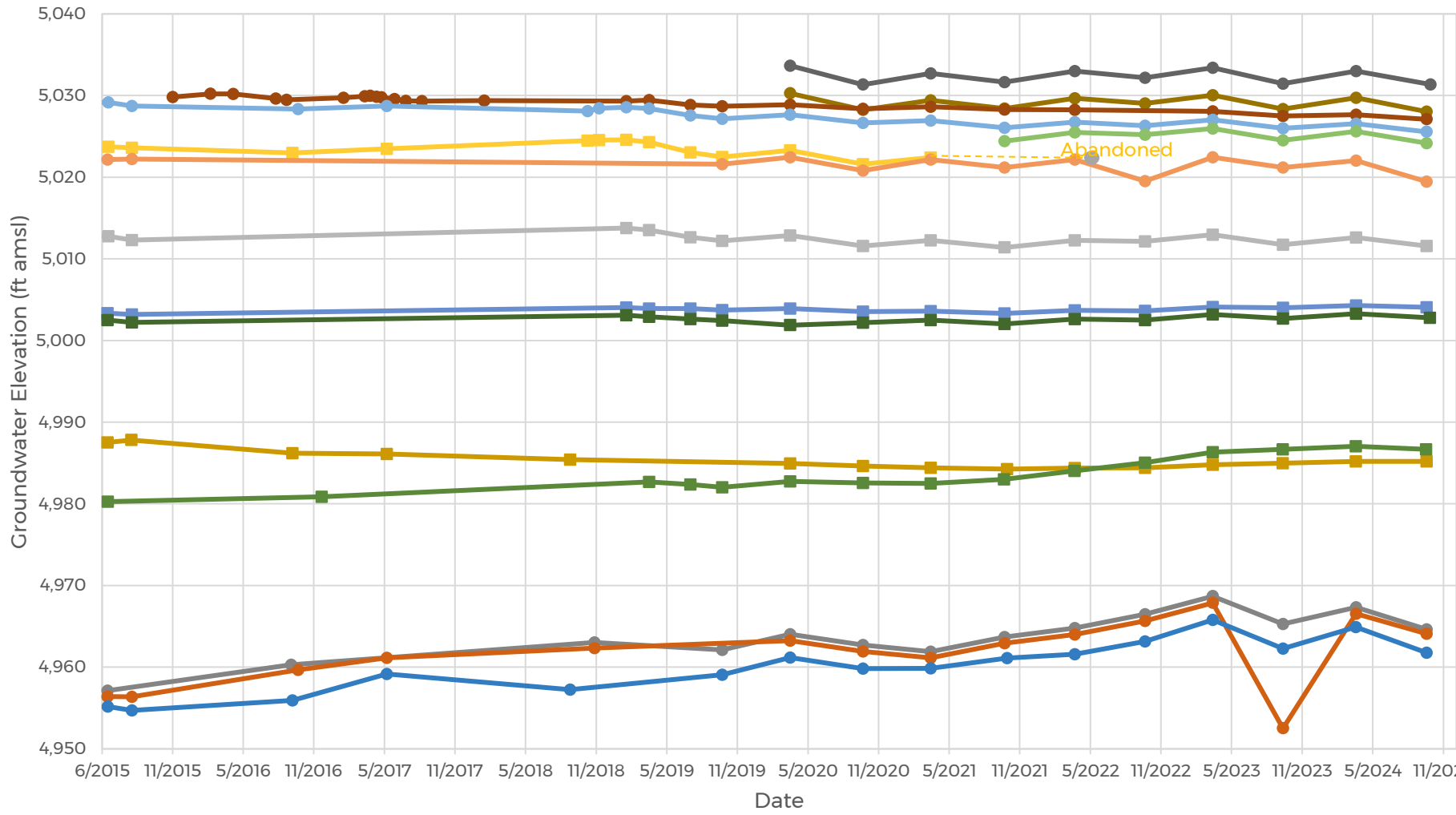
Arizona Public Supply

Cholla Power Plant

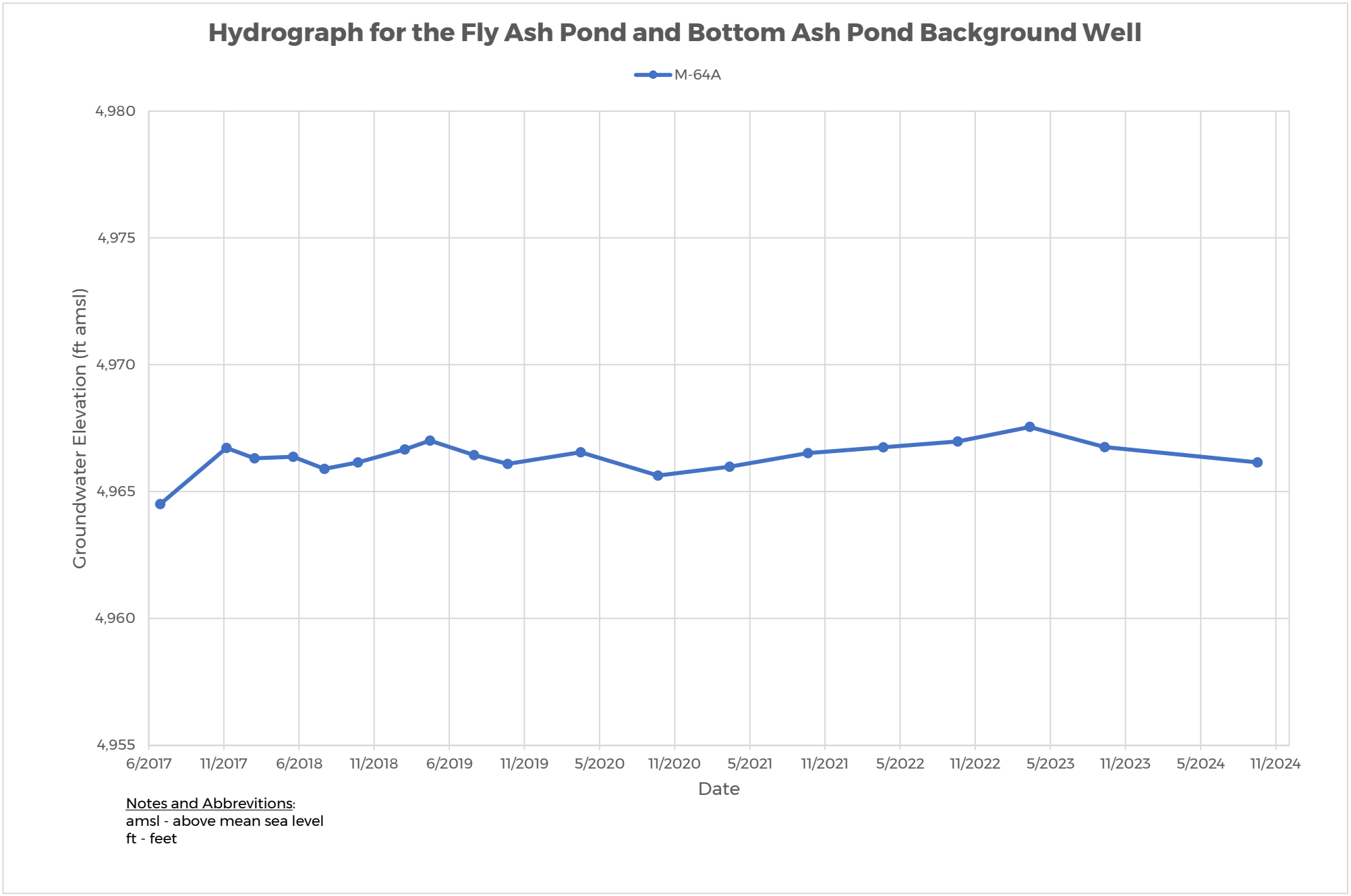
Navajo County, Arizona

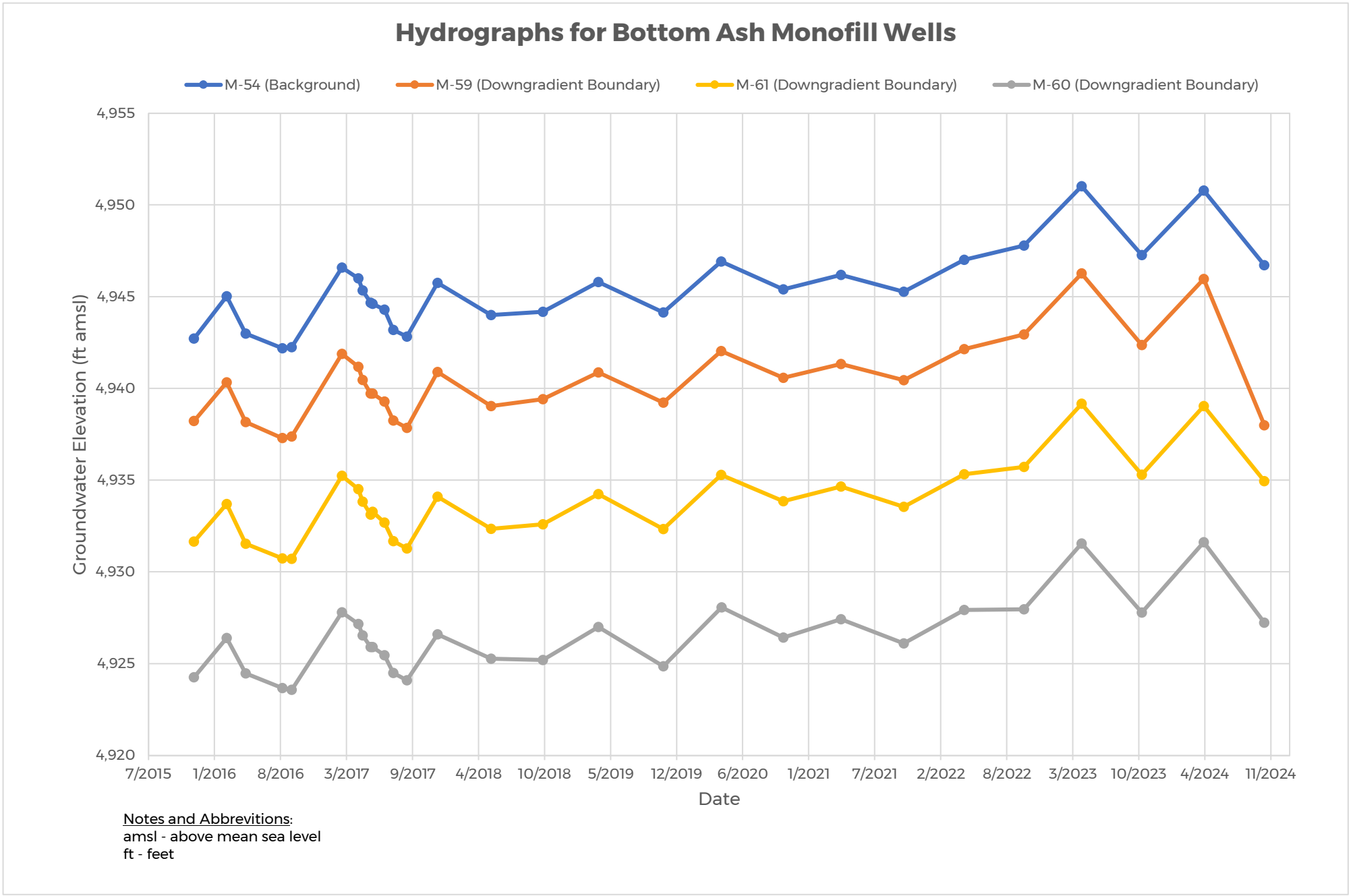


Notes and Abbrevitions:
amsl - above mean sea level
ft - feet
MW-76A has remained dry since installation



Notes and Abbrevitions:
amsl - above mean sea level
ft - feet


Hydrograph for the Fly Ash Pond and Bottom Ash Pond Background Well
M-64A
Groundwater Elevation (ft amsl)
4,980
4,975
4,970
4,965
4,960
4,955
6/2017
11/2017
6/2018
11/2018
6/2019
11/2019
5/2020
11/2020
5/2021
11/2021
5/2022
11/2022
5/2023
11/2023
5/2024
11/2024
Date
Notes and Abbrevitions:
amsl - above mean sea level
ft - feet



Notes and Abbrevitions:
amsl - above mean sea level
ft - feet

M-50A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5038.18	18.95	5019.23
3/8/2016	5038.18	18.47	5019.71
5/5/2016	5038.18	18.46	5019.72
8/24/2016	5038.18	19.32	5018.86
9/21/2016	5038.18	19.33	5018.85
2/20/2017	5038.18	18.81	5019.37
4/11/2017	5038.18	18.66	5019.52
4/24/2017	5038.18	18.62	5019.56
5/18/2017	5038.18	18.77	5019.41
5/24/2017	5038.18	18.81	5019.37
6/29/2017	5038.18	19.13	5019.05
7/26/2017	5038.18	19.33	5018.85
9/5/2017	5038.18	19.37	5018.81
12/7/2017	5038.18	19.36	5018.82
2/13/2018	5038.18	19.13	5019.05
5/18/2018	5038.18	18.99	5019.19
8/2/2018	5038.18	19.65	5018.53
10/22/2018	5038.18	19.23	5018.95
2/13/2019	5038.18	19.03	5019.15
4/8/2019	5038.18	18.79	5019.39
10/21/2019	5038.18	19.94	5018.24
4/16/2020	5038.18	19.07	5019.11
10/20/2020	5038.18	19.57	5018.61
4/12/2021	5038.18	19.28	5018.90
10/19/2021	5038.18	19.92	5018.26
4/19/2022	5038.18	19.07	5019.11
10/18/2022	5038.18	19.43	5018.75
4/11/2023	5038.18	18.91	5019.27
10/10/2023	5038.18	19.76	5018.42

M-50A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/16/2024	5038.18	18.75	5019.43
10/16/2024	5038.18	19.85	5018.33
	Maximum Observed:	*5019.72*	*ft AMSL*
	Minimum Observed:	*5018.24*	*ft AMSL*
	Range:	*1.48*	*ft*

M-51A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5041.77	9.47	5032.30
3/8/2016	5041.77	9.23	5032.54
5/5/2016	5041.77	9.37	5032.40
8/24/2016	5041.77	9.62	5032.15
9/21/2016	5041.77	9.63	5032.14
2/20/2017	5041.77	9.29	5032.48
4/11/2017	5041.77	9.42	5032.35
4/24/2017	5041.77	9.48	5032.29
5/18/2017	5041.77	9.57	5032.20
5/24/2017	5041.77	9.66	5032.11
6/29/2017	5041.77	9.91	5031.86
7/26/2017	5041.77	9.68	5032.09
9/5/2017	5041.77	9.7	5032.07
12/7/2017	5041.77	9.58	5032.19
2/13/2018	5041.77	9.33	5032.44
5/18/2018	5041.77	9.64	5032.13
8/2/2018	5041.77	10.01	5031.76
10/22/2018	5041.77	9.44	5032.33
2/13/2019	5041.77	9.28	5032.49
4/8/2019	5041.77	9.3	5032.47
10/21/2019	5041.77	9.78	5031.99
4/16/2020	5041.77	8.97	5032.80
10/20/2020	5041.77	9.96	5031.81
4/12/2021	5041.77	9.45	5032.32
10/19/2021	5041.77	9.81	5031.96
4/19/2022	5041.77	9.5	5032.27
10/18/2022	5041.77	9.5	5032.27
4/11/2023	5041.77	9.34	5032.43
10/10/2023	5041.77	9.7	5032.07

M-51A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/16/2024	5041.77	9.53	5032.24
10/16/2024	5041.77	10.41	5031.36
	Maximum Observed:	*5032.80*	*ft AMSL*
	Minimum Observed:	*5031.36*	*ft AMSL*
	Range:	*1.44*	*ft*

MW-65A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/15/2018	5027.86	13.70	5014.16
12/5/2018	5027.86	14.96	5012.90
2/15/2019	5027.86	14.67	5013.19
4/8/2019	5027.86	14.45	5013.41
10/21/2019	5027.86	15.21	5012.65
4/15/2020	5027.86	14.78	5013.08
10/20/2020	5027.86	16.33	5011.53
4/12/2021	5027.86	15.11	5012.75
10/19/2021	5027.86	15.46	5012.40
4/19/2022	5027.86	14.99	5012.87
10/18/2022	5027.86	15.33	5012.53
4/11/2023	5027.86	14.75	5013.11
10/10/2023	5027.86	15.6	5012.26
4/16/2024	5027.86	14.47	5013.39
10/15/2024	5027.86	16.28	5011.58
	Maximum Observed:	*5014.16*	*ft AMSL*
	Minimum Observed:	*5011.53*	*ft AMSL*
	Range:	*2.63*	*ft*

MW-66A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/14/2018	5033.35	29.31	5004.04
12/5/2018	5033.35	28.93	5004.42
2/15/2019	5033.35	28.93	5004.42
4/8/2019	5033.35	28.36	5004.99
10/21/2019	5033.35	30.05	5003.30
4/15/2020	5033.35	28.20	5005.15
10/20/2020	5033.35	30.00	5003.35
4/12/2021	5033.35	28.08	5005.27
10/19/2021	5033.35	28.25	5005.10
4/19/2022	5033.35	26.58	5006.77
10/18/2022	5033.35	26.63	5006.72
4/11/2023	5033.35	26.59	5006.76
10/10/2023	5033.35	27.78	5005.57
4/16/2024	5033.35	27.18	5006.17
10/15/2024	5033.35	26.84	5006.51
	Maximum Observed:	*5006.77*	*ft AMSL*
	Minimum Observed:	*5003.30*	*ft AMSL*
	Range:	*3.47*	*ft*

MW-67A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/16/2018	5025.38	34.4	4990.98
12/5/2018	5025.38	34.32	4991.06
2/15/2019	5025.38	34.32	4991.06
4/8/2019	5025.38	33.54	4991.84
10/21/2019	5025.38	35.36	4990.02
4/15/2020	5025.38	32.88	4992.5
10/20/2020	5025.38	35.18	4990.2
4/12/2021	5025.38	32.84	4992.54
10/19/2021	5025.38	32.84	4992.54
4/19/2022	5025.38	30.41	4994.97
10/17/2022	5025.38	30.35	4995.03
4/11/2023	5025.38	28.17	4997.21
10/10/2023	5025.38	28.66	4996.72
4/29/2024	NA	27.22	
11/12/2024	5027.32	29.86	4997.46
	Maximum Observed:	*4997.46*	*ft AMSL*
	Minimum Observed:	*4990.02*	*ft AMSL*
	Range:	*7.44*	*ft*

W-123			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5039.84	1.97	5037.87
3/8/2016	5039.84	1.73	5038.11
5/5/2016	5039.84	1.90	5037.94
8/24/2016	5039.84	2.02	5037.82
9/21/2016	5039.84	2.35	5037.49
2/20/2017	5039.84	1.74	5038.10
4/11/2017	5039.84	1.86	5037.98
4/24/2017	5039.84	1.85	5037.99
5/18/2017	5039.84	1.87	5037.97
5/24/2017	5039.84	1.88	5037.96
6/29/2017	5039.84	2.11	5037.73
7/26/2017	5039.84	2.12	5037.72
9/5/2017	5039.84	2.25	5037.59
12/7/2017	5039.84	2.43	5037.41
2/13/2018	5039.84	2.34	5037.50
5/18/2018	5039.84	2.53	5037.31
8/2/2018	5039.84	2.82	5037.02
10/22/2018	5039.84	2.60	5037.24
2/13/2019	5039.84	2.53	5037.31
4/8/2019	5039.84	2.24	5037.60
10/21/2019	5039.84	2.78	5037.06
4/16/2020	5039.84	2.01	5037.83
10/20/2020	5039.84	2.85	5036.99
4/12/2021	5039.84	2.28	5037.56
Well abandonded June 2021			
	Maximum Observed:	*5038.11*	*ft AMSL*
	Minimum Observed:	*5036.99*	*ft AMSL*
	Range:	*1.12*	*ft*

W-123R			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/19/2021	5040.33	3.46	5036.87
4/19/2022	5040.33	3.96	5036.37
10/17/2022	5040.33	3.65	5036.68
4/11/2023	5040.33	3.74	5036.59
10/10/2023	5040.33	5.42	5034.91
4/16/2024	5040.33	5.61	5034.72
11/6/2024	5040.33	5.42	5034.91
	Maximum Observed:	*5036.87*	*ft AMSL*
	Minimum Observed:	*5034.72*	*ft AMSL*
	Range:	*2.15*	*ft*

DM-04R			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
1/30/2009	5018.43	30.38	4988.05
3/19/2009	5018.43	30.54	4987.89
6/22/2009	5018.43	30.61	4987.82
9/29/2009	5018.43	31.04	4987.39
9/8/2010	5018.43	34	4984.43
11/11/2010	5018.43	34.2	4984.23
12/9/2010	5018.43	34.22	4984.21
3/21/2011	5018.43	34	4984.43
6/12/2011	5018.43	34.28	4984.15
6/23/2011	5018.43	34.28	4984.15
8/7/2011	5018.43	34.51	4983.92
9/7/2011	5018.43	34.74	4983.69
11/12/2011	5018.43	35.04	4983.39
3/12/2012	5018.43	35.20	4983.23
6/12/2012	5018.43	35.20	4983.23
9/20/2012	5018.43	36.20	4982.23
10/8/2012	5018.43	35.60	4982.83
3/12/2013	5018.43	35.87	4982.56
10/7/2013	5018.43	36.08	4982.35
6/11/2014	5018.43	35.48	4982.95
6/16/2015	5018.43	35.29	4983.14
10/4/2016	5018.43	34.38	4984.05
6/6/2017	5018.43	32.75	4985.68
2/22/2018	5018.43	32.72	4985.71
8/7/2018	5018.43	32.72	4985.71
9/10/2018	5018.43	32.86	4985.57
10/21/2019	5018.43	31.88	4986.55
4/15/2020	5018.43	31.26	4987.17
10/20/2020	5018.43	31.33	4987.10
4/12/2021	5018.43	31.15	4987.28
10/19/2021	5018.43	30.50	4987.93
4/19/2022	5018.43	29.20	4989.23
10/18/2022	5018.43	28.37	4990.06
4/11/2023	5018.43	27.36	4991.07

DM-04R			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/9/2023	5018.43	26.51	4991.92
4/16/2024	5018.43	25.89	4992.54
10/16/2024	5018.43	25.78	4992.65
		Maximum Observed:	*4992.65*
		Minimum Observed:	*4982.23*
		Range:	*10.42*

M-44S			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
8/7/2011	5145.63	161.8	4983.83
1/28/2014	5145.63	163.55	4982.08
2/21/2014	5145.63	163.44	4982.19
3/24/2014	5145.63	163.41	4982.22
4/8/2014	5145.63	163.43	4982.2
5/29/2014	5145.63	163.24	4982.39
6/9/2014	5145.63	163.22	4982.41
10/4/2016	5145.63	163.49	4982.14
8/2/2018	5145.63	162.08	4983.55
9/10/2018	5145.63	162.13	4983.5
10/21/2019	5145.63	161.39	4984.24
4/16/2020	5145.63	161.01	4984.62
10/20/2020	5145.63	160.48	4985.15
4/12/2021	5145.63	160.55	4985.08
10/27/2021	5145.63	160.42	4985.21
4/19/2022	5145.63	160.25	4985.38
10/18/2022	5145.63	158.80	4986.83
4/11/2023	5145.63	159.26	4986.37
10/9/2023	5145.63	158.48	4987.15
4/16/2024	5145.63	157.92	4987.71
10/16/2024	5145.63	157.34	4988.29
		Maximum Observed:	*4988.29*
		Minimum Observed:	*4982.08*
		Range:	*6.21*

M-44D			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/11/2010	5143.52	144.81	4998.71
12/9/2010	5143.52	145.3	4998.22
6/23/2011	5143.52	146.2	4997.32
8/7/2011	5143.52	139.46	5004.06
11/12/2011	5143.52	147.11	4996.41
3/12/2012	5143.52	145.39	4998.13
6/12/2012	5143.52	146.81	4996.71
9/25/2012	5143.52	148.3	4995.22
12/6/2012	5143.52	147.3	4996.22
3/14/2013	5143.52	146.48	4997.04
6/25/2014	5143.52	147.14	4996.38
11/30/2015	5143.52	147.06	4996.46
3/7/2016	5143.52	145.01	4998.51
5/22/2016	5143.52	145.98	4997.54
8/23/2016	5143.52	147.01	4996.51
9/20/2016	5143.52	146.88	4996.64
10/4/2016	5143.52	146.94	4996.58
2/14/2017	5143.52	144.34	4999.18
4/10/2017	5143.52	144.02	4999.50
4/24/2017	5143.52	144.19	4999.33
5/11/2017	5143.52	144.68	4998.84
5/22/2017	5143.52	144.73	4998.79
5/25/2017	5143.52	144.78	4998.74
6/26/2017	5143.52	145.22	4998.30
7/25/2017	5143.52	145.87	4997.65
9/5/2017	5143.52	146.08	4997.44
7/30/2018	5143.52	148.62	4994.90
10/21/2019	5143.52	145.35	4998.17
4/16/2020	5143.52	NM	
10/20/2020	5143.52	145.48	4998.04
4/12/2021	5143.52	143.65	4999.87
10/23/2021	5143.52	143.88	4999.64
4/19/2022	5143.52	142.17	5001.35
10/18/2022	5143.52	141.72	5001.8

M-44D			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/11/2023	5143.52	139.33	5004.19
10/9/2023	5143.52	141.16	5002.36
4/16/2024	5143.52	139.07	5004.45
10/16/2024	5143.52	141.41	5002.11
		Maximum Observed:	*5004.45*
		Minimum Observed:	*4994.90*
		Range:	*9.55*

M-43A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
7/1/2018	5022.56	35.38	4987.18
10/21/2019	5022.56	NM	
4/15/2020	5022.56	NM	
10/20/2020	5022.56	NM	
4/12/2021	5022.56	32.91	4989.65
10/19/2021	5022.56	32.80	4989.76
4/19/2022	5022.56	30.54	4992.02
10/18/2022	5022.56	30.47	4992.09
4/11/2023	5022.56	28.28	4994.28
10/10/2023	5022.56	28.55	4994.01
4/16/2024	5022.56	27.15	4995.41
10/15/2024	5022.56	28.02	4994.54
		Maximum Observed:	*4995.41*
		Minimum Observed:	*4987.18*
		Range:	*8.23*

M-45A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/11/2012	5025.57	41.79	4983.78
9/17/2013	5025.57	41.90	4983.67
11/21/2013	5025.57	41.82	4983.75
3/26/2014	5025.57	40.7	4984.87
6/10/2014	5025.57	40.84	4984.73
6/16/2015	5025.57	40.49	4985.08
12/20/2016	5025.57	37.95	4987.62
2/22/2018	5025.57	37.18	4988.39
8/7/2018	5025.57	36.92	4988.65
10/21/2019	5025.57	36.93	4988.64
4/15/2020	5025.57	35.92	4989.65
10/20/2020	5025.57	36.36	4989.21
4/12/2021	5025.57	35.95	4989.62
10/19/2021	5025.57	35.90	4989.67
4/19/2022	5025.57	34.60	4990.97
10/18/2022	5025.57	33.54	4992.03
4/11/2023	5025.57	32.58	4992.99
10/10/2023	5025.57	32.92	4992.65
4/16/2024	5025.57	32.15	4993.42
10/15/2024	5025.57	32.59	4992.98
		Maximum Observed:	*4993.42*
		Minimum Observed:	*4983.67*
		Range:	*9.75*

M-46A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
2/22/2012	5025.36	27.42	4997.94
12/20/2016	5025.36	27.39	4997.97
8/7/2018	5025.36	27.04	4998.32
10/21/2019	5025.36	27.14	4998.22
4/15/2020	5025.36	26.3	4999.06
10/20/2020	5025.36	27.17	4998.19
4/12/2021	5025.36	26.24	4999.12
10/19/2021	5025.36	26.48	4998.88
4/19/2022	5025.36	25.51	4999.85
10/18/2022	5025.36	25.60	4999.76
4/11/2023	5025.36	24.66	5000.7
10/10/2023	5025.36	24.95	5000.41
4/16/2024	5025.36	24.18	5001.18
10/15/2024	5025.36	24.41	5000.95
		Maximum Observed:	*5001.18*
		Minimum Observed:	*4997.94*
		Range:	*3.24*

M-49A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/21/2019	5025.12	Dry	
4/15/2020	5025.12	Dry	
4/12/2021	5025.12	Dry	
10/19/2021	5025.12	Dry	
4/19/2022	5025.12	Dry	
10/18/2022	5025.12	Dry	
4/11/2023	5025.12	22.45	5002.67
10/9/2023	5025.12	22.45	5002.67
4/19/2024	5025.12	22.41	5002.71
10/16/2024	5025.12	Dry	
		Maximum Observed:	*5002.71*
		Minimum Observed:	*5002.67*
		Range:	*0.04*

M-63A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5021.82	40.48	4981.34
11/30/2015	5021.82	40.48	4981.34
3/7/2016	5021.82	39.23	4982.59
3/7/2016	5021.82	39.23	4982.59
5/5/2016	5021.82	38.57	4983.25
8/23/2016	5021.82	38.54	4983.28
9/20/2016	5021.82	38.37	4983.45
10/4/2016	5021.82	38.29	4983.53
2/14/2017	5021.82	36.77	4985.05
4/10/2017	5021.82	36.04	4985.78
4/24/2017	5021.82	35.92	4985.90
5/11/2017	5021.82	35.81	4986.01
5/22/2017	5021.82	35.76	4986.06
5/23/2017	5021.82	35.78	4986.04
6/26/2017	5021.82	35.93	4985.89
7/25/2017	5021.82	36.22	4985.60
9/5/2017	5021.82	36.45	4985.37
2/22/2018	5021.82	36.25	4985.57
9/10/2018	5021.82	36.84	4984.98
10/21/2019	5021.82	36.02	4985.80
4/15/2020	5021.82	34.33	4987.49
10/20/2020	5021.82	35.58	4986.24
4/12/2021	5021.82	34.26	4987.56
10/19/2021	5021.82	33.80	4988.02
4/19/2022	5021.82	31.70	4990.12
10/18/2022	5021.82	31.26	4990.56
4/11/2023	5021.82	29.52	4992.303
10/9/2023	5021.82	29.34	4992.483
4/16/2024	5021.82	28.08	4993.743
10/16/2024	5021.82	28.64	4993.183
		Maximum Observed:	*4993.74*
		Minimum Observed:	*4981.34*
		Range:	*12.40*

W-124			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
6/26/2009	5037.53	45.2	4992.33
9/19/2009	5037.53	46.02	4991.51
12/16/2009	5037.53	45.26	4992.27
3/16/2010	5037.53	44.81	4992.72
6/17/2010	5037.53	45.51	4992.02
3/16/2011	5037.53	44.82	4992.71
6/21/2011	5037.53	46.62	4990.91
6/18/2015	5037.53	46.35	4991.18
8/17/2015	5037.53	47.2	4990.33
10/4/2016	5037.53	45.2	4992.33
6/6/2017	5037.53	42.99	4994.54
8/6/2018	5037.53	43.31	4994.22
9/10/2018	5037.53	43.68	4993.85
10/21/2019	5037.53	43.20	4994.33
4/16/2020	5037.53	40.21	4997.32
10/20/2020	5037.53	43.20	4994.33
4/12/2021	5037.53	40.32	4997.21
10/19/2021	5037.53	39.58	4997.95
4/19/2022	5037.53	37.98	4999.55
10/18/2022	5037.53	38.17	4999.36
4/11/2023	5037.53	35.5	5002.03
10/10/2023	5037.53	36.63	5000.90
4/16/2024	5037.53	34.55	5002.98
		Maximum Observed:	*5002.98*
		Minimum Observed:	*4990.33*
		Range:	*12.65*

W-125			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/17/2009	5038.51	44.27	4994.24
6/26/2009	5038.51	45.00	4993.51
9/19/2009	5038.51	45.84	4992.67
12/16/2009	5038.51	45.08	4993.43
3/16/2010	5038.51	44.62	4993.89
6/17/2010	5038.51	45.34	4993.17
2/17/2011	5038.51	44.71	4993.80
3/16/2011	5038.51	44.62	4993.89
6/21/2011	5038.51	46.45	4992.06
8/7/2011	5038.51	46.72	4991.79
9/30/2011	5038.51	47.44	4991.07
12/7/2011	5038.51	46.95	4991.56
12/14/2011	5038.51	46.57	4991.94
3/15/2012	5038.51	45.97	4992.54
6/27/2012	5038.51	46.53	4991.98
9/26/2012	5038.51	47.40	4991.11
10/8/2012	5038.51	47.88	4990.63
1/27/2013	5038.51	46.64	4991.87
6/6/2013	5038.51	46.72	4991.79
6/12/2014	5038.51	46.44	4992.07
6/18/2015	5038.51	46.10	4992.41
3/7/2016	5038.51	44.56	4993.95
5/22/2016	5038.51	44.55	4993.96
8/23/2016	5038.51	45.75	4992.76
12/1/2016	5038.51	46.68	4991.83
10/21/2019	5038.51	44.09	4994.42
4/16/2020	5038.51	41.23	4997.28
10/20/2020	5038.51	44.03	4994.48
4/12/2021	5038.51	41.20	4997.31
10/19/2021	5038.51	41.43	4997.08
4/19/2022	5038.51	38.84	4999.67
10/18/2022	5038.51	38.97	4999.54

W-125			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/11/2023	5038.51	36.57	5001.94
10/10/2023	5038.51	37.72	5000.79
4/16/2024	5038.51	35.6	5002.91
11/6/2024	5038.51	33.28	5005.23
		Maximum Observed:	*4999.67*
		Minimum Observed:	*4990.63*
		Range:	*9.04*

W-126			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/19/2009	5034.75	4.39	5030.36
6/26/2009	5034.75	4.73	5030.02
9/19/2009	5034.75	5.41	5029.34
12/16/2009	5034.75	4.46	5030.29
3/16/2010	5034.75	3.83	5030.92
6/25/2010	5034.75	7.35	5027.40
3/18/2011	5034.75	5.99	5028.76
6/21/2011	5034.75	7.25	5027.50
8/8/2011	5034.75	6.44	5028.31
9/30/2011	5034.75	7.91	5026.84
12/6/2011	5034.75	5.79	5028.96
12/14/2011	5034.75	5.98	5028.77
3/15/2012	5034.75	5.97	5028.78
6/27/2012	5034.75	7.66	5027.09
9/26/2012	5034.75	8.1	5026.65
10/9/2012	5034.75	7.94	5026.81
6/6/2013	5034.75	5.69	5029.06
6/11/2014	5034.75	5.74	5029.01
6/17/2015	5034.75	5.44	5029.31
8/17/2015	5034.75	5.6	5029.15
10/5/2016	5034.75	5.94	5028.81
12/21/2016	5034.75	3.78	5030.97
6/6/2017	5034.75	5.9	5028.85
7/2/2017	5034.75	6.15	5028.60
7/11/2017	5034.75	5.98	5028.77
8/21/2017	5034.75	5.98	5028.77
9/27/2017	5034.75	6.23	5028.52
10/6/2017	5034.75	6.4	5028.35
11/2/2017	5034.75	6.04	5028.71
11/16/2017	5034.75	6.6	5028.15
12/28/2017	5034.75	6.32	5028.43
1/3/2018	5034.75	6.31	5028.44
1/23/2018	5034.75	6.36	5028.39
2/13/2018	5034.75	4.64	5030.11

W-126			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/9/2018	5034.75	4.07	5030.68
4/24/2018	5034.75	4.63	5030.12
5/6/2018	5034.75	5.88	5028.87
5/25/2018	5034.75	6.53	5028.22
6/26/2018	5034.75	7.08	5027.67
7/24/2018	5034.75	7.53	5027.22
8/6/2018	5034.75	7.92	5026.83
9/23/2018	5034.75	7.62	5027.13
10/24/2018	5034.75	6.71	5028.04
11/28/2018	5034.75	7.62	5027.13
12/5/2018	5034.75	8.06	5026.69
1/17/2019	5034.75	6.47	5028.28
2/14/2019	5034.75	6.53	5028.22
4/11/2019	5034.75	6.51	5028.24
10/21/2019	5034.75	7.71	5027.04
4/15/2020	5034.75	4.43	5030.32
10/20/2020	5034.75	7.94	5026.81
4/12/2021	5034.75	6.12	5028.63
Well abandonded June 2021			
		Maximum Observed:	*5030.97*
		Minimum Observed:	*5026.65*
		Range:	*4.32*

W-126R			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/19/2021	5031.12	5.81	5025.31
4/19/2022	5031.12	6.10	5025.02
10/18/2022	5031.12	4.42	5026.70
4/11/2023	5031.12	3.57	5027.55
10/10/2023	5031.12	7.4	5023.72
4/16/2024	5031.12	7.24	5023.88
10/15/2024	5031.12	5.92	5025.20
		Maximum Observed:	*5027.55*
		Minimum Observed:	*5023.72*
		Range:	*3.83*

MW-80A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
8/29/2024	5025.85	28.85	4997.00
10/3/2024	5025.85	29.19	4996.66
11/7/2024	5025.85	29.37	4996.48
12/11/2024	5025.85	29.16	4996.69
		Maximum Observed:	*4997.00*
		Minimum Observed:	*4996.48*
		Range:	*0.52*

MW-81A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
8/28/2024	5026.76	29.51	4997.25
10/3/2024	5026.76	29.87	4996.89
11/7/2024	5026.76	29.82	4996.94
12/11/2024	5026.76	29.96	4996.80
		Maximum Observed:	*4997.25*
		Minimum Observed:	*4996.80*
		Range:	*0.45*

MW-82A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
8/28/2024	5027.5	31.12	4996.38
10/3/2024	5027.5	30.64	4996.86
11/7/2024	5027.5	30.59	4996.91
12/11/2024	5027.5	32.51	4994.99
		Maximum Observed:	*4996.91*
		Minimum Observed:	*4994.99*
		Range:	*1.92*

MW-83A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
8/28/2024	5030.42	30.55	4999.87
10/3/2024	5030.42	34.40	4996.02
11/7/2024	5030.42	31.91	4998.51
12/11/2024	5030.42	31.44	4998.98
		Maximum Observed:	*4999.87*
		Minimum Observed:	*4996.02*
		Range:	*3.85*

MW-84A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
8/28/2024	5027.38	28.78	4998.60
10/3/2024	5027.38	28.87	4998.51
11/7/2024	5027.38	28.95	4998.43
12/11/2024	5027.38	28.62	4998.76
		Maximum Observed:	*4998.76*
		Minimum Observed:	*4998.43*
		Range:	*0.33*

MW-85C			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
8/29/2024	5027.7	30.55	4997.15
10/3/2024	5027.7	30.70	4997.00
11/7/2024	5027.7	30.68	4997.02
12/11/2024	5027.7	30.09	4997.61
		Maximum Observed:	*4997.61*
		Minimum Observed:	*4997.00*
		Range:	*0.61*

M-52A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5049.36	19.13	5030.23
3/8/2016	5049.36	18.49	5030.87
5/5/2016	5049.36	18.28	5031.08
8/24/2016	5049.36	19.80	5029.56
9/21/2016	5049.36	20.02	5029.34
2/20/2017	5049.36	19.05	5030.31
4/11/2017	5049.36	18.81	5030.55
4/24/2017	5049.36	18.78	5030.58
5/18/2017	5049.36	18.88	5030.48
5/24/2017	5049.36	18.99	5030.37
6/29/2017	5049.36	19.91	5029.45
7/26/2017	5049.36	20.12	5029.24
9/5/2017	5049.36	20.41	5028.95
12/7/2017	5049.36	19.88	5029.48
2/13/2018	5049.36	19.46	5029.90
5/18/2018	5049.36	19.58	5029.78
10/22/2018	5049.36	19.52	5029.84
2/15/2019	5049.36	18.10	5031.26
4/15/2019	5049.36	18.28	5031.08
7/31/2019	5049.36	19.89	5029.47
10/21/2019	5049.36	19.89	5029.47
4/14/2020	5049.36	18.73	5030.63
10/19/2020	5049.36	21.01	5028.35
4/12/2021	5049.36	19.69	5029.67
10/20/2021	5049.36	20.75	5028.61
4/20/2022	5049.36	19.42	5029.94
10/18/2022	5049.36	20.23	5029.13
4/11/2023	5049.36	19.02	5030.34
10/10/2023	5049.36	21.22	5028.14

M-52A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/16/2024	5049.36	19.58	5029.78
10/28/2024	5049.36	21.13	5028.23
	Maximum Observed:	*5031.26*	*ft AMSL*
	Minimum Observed:	*5028.14*	*ft AMSL*
	Range:	*3.12*	*ft*

M-53A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5044.68	4.49	5040.19
3/8/2016	5044.68	4.32	5040.36
5/5/2016	5044.68	4.27	5040.41
8/24/2016	5044.68	4.99	5039.69
9/21/2016	5044.68	5.19	5039.49
2/20/2017	5044.68	4.33	5040.35
4/11/2017	5044.68	4.23	5040.45
4/24/2017	5044.68	4.28	5040.40
5/18/2017	5044.68	4.49	5040.19
5/24/2017	5044.68	4.57	5040.11
6/29/2017	5044.68	5.21	5039.47
7/26/2017	5044.68	4.99	5039.69
9/5/2017	5044.68	5.28	5039.40
12/7/2017	5044.68	4.72	5039.96
2/13/2018	5044.68	4.58	5040.10
5/18/2018	5044.68	4.67	5040.01
10/22/2018	5044.68	4.67	5040.01
2/15/2019	5044.68	4.17	5040.51
4/15/2019	5044.68	4.08	5040.60
7/31/2019	5044.68	4.91	5039.77
10/21/2019	5044.68	4.85	5039.83
4/14/2020	5044.68	3.76	5040.92
10/19/2020	5044.68	5.76	5038.92
4/12/2021	5044.68	4.43	5040.25
10/20/2021	5044.68	5.01	5039.67
4/20/2022	5044.68	4.26	5040.42
10/18/2022	5044.68	4.83	5039.85
4/11/2023	5044.68	4.07	5040.61
10/10/2023	5044.68	5.8	5038.88

M-53A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/16/2024	5044.68	4.54	5040.14
10/15/2024	5044.68	9.72	5034.96
	Maximum Observed:	*5040.92*	*ft AMSL*
	Minimum Observed:	*5034.96*	*ft AMSL*
	Range:	*5.96*	*ft*

M-71A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/20/2021	5050.15	11.93	5038.22
4/20/2022	5050.15	10.52	5039.63
10/18/2022	5050.15	11.03	5039.12
4/11/2023	5050.15	9.95	5040.20
10/10/2023	5050.15	12.16	5037.99
4/15/2024	5050.15	9.56	5040.59
10/15/2024	5050.15	12.21	5037.94
	Maximum Observed:	*5040.59*	*ft AMSL*
	Minimum Observed:	*5037.94*	*ft AMSL*
	Range:	*2.65*	*ft*

M-72A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/20/2021	5049.67	30.22	5019.45
4/20/2022	5049.67	18.25	5031.42
10/18/2022	5049.67	18.67	5031.00
4/11/2023	5049.67	17.68	5031.99
10/10/2023	5049.67	18.72	5030.95
4/15/2024	5049.67	18.14	5031.53
10/15/2024	5049.67	19.29	5030.38
	Maximum Observed:	*5031.99*	*ft AMSL*
	Minimum Observed:	*5019.45*	*ft AMSL*
	Range:	*12.54*	*ft*

MW-73A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/20/2021	5049.19	18.59	5030.60
4/20/2022	5049.19	16.68	5032.51
10/18/2022	5049.19	17.75	5031.44
4/11/2023	5049.19	16.47	5032.72
10/10/2023	5049.19	18.50	5030.69
4/15/2024	5049.19	14.69	5034.50
10/15/2024	5049.19	18.60	5030.59
	Maximum Observed:	*5034.50*	*ft AMSL*
	Minimum Observed:	*5030.59*	*ft AMSL*
	Range:	*3.91*	*ft*

MW-74M			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/20/2021	5049.07	18.63	5030.44
4/20/2022	5049.07	17.71	5031.36
10/18/2022	5049.07	16.96	5032.11
4/11/2023	5049.07	17.27	5031.80
10/10/2023	5049.07	18.68	5030.39
4/15/2024	5049.07	17.65	5031.42
10/15/2024	5049.07	19.03	5030.04
	Maximum Observed:	*5032.11*	*ft AMSL*
	Minimum Observed:	*5030.04*	*ft AMSL*
	Range:	*2.07*	*ft*

MW-76A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/19/2021	5033.39	28.35	Dry
4/19/2022	5033.39	28.35	Dry
10/18/2022	5033.39	28.35	Dry
4/11/2023	5033.39	28.4	Dry
10/10/2023	5033.39	Dry	Dry
4/16/2024	5033.39	Dry	Dry
	Maximum Observed:		*ft AMSL*
	Minimum Observed:		*ft AMSL*
	Range:	*0.00*	*ft*

MW-77A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/20/2021	5031.02	37.59	4993.43
4/19/2022	5031.02	36.89	4994.13
10/18/2022	5031.02	36.62	4994.40
4/11/2023	5031.02	35.79	4995.23
10/10/2023	5031.02	35.70	4995.32
4/16/2024	5031.02	35.22	4995.80
10/15/2024	5031.02	35.49	4995.53
	Maximum Observed:	*4995.80*	*ft AMSL*
	Minimum Observed:	*4993.43*	*ft AMSL*
	Range:	*2.37*	*ft*

MW-78A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/20/2021	5036.32	31.53	5004.79
4/20/2022	5036.32	30.65	5005.67
10/18/2022	5036.32	30.53	5005.79
4/11/2023	5036.32	29.69	5006.63
10/10/2023	5036.32	30.25	5006.07
4/16/2024	5036.32	29.55	5006.77
10/15/2024	5036.32	30.30	5006.02
	Maximum Observed:	*5006.77*	*ft AMSL*
	Minimum Observed:	*5004.79*	*ft AMSL*
	Range:	*1.98*	*ft*

MW-79A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/20/2021	5040.30	28.51	5011.79
4/20/2022	5040.30	27.52	5012.78
10/18/2022	5040.30	27.55	5012.75
4/11/2023	5040.30	26.73	5013.57
10/10/2023	5040.30	27.66	5012.64
4/16/2024	5040.30	26.86	5013.44
10/15/2024	5040.30	27.89	5012.41
	Maximum Observed:	*5013.57*	*ft AMSL*
	Minimum Observed:	*5011.79*	*ft AMSL*
	Range:	*1.78*	*ft*

W-305			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5046.80	19.69	5027.11
3/8/2016	5046.80	19.15	5027.65
5/5/2016	5046.80	18.97	5027.83
8/24/2016	5046.80	20.25	5026.55
9/21/2016	5046.80	20.52	5026.28
2/20/2017	5046.80	19.83	5026.97
4/11/2017	5046.80	19.61	5027.19
4/24/2017	5046.80	19.53	5027.27
5/18/2017	5046.80	19.68	5027.12
5/24/2017	5046.80	19.77	5027.03
6/29/2017	5046.80	20.47	5026.33
7/26/2017	5046.80	20.74	5026.06
9/5/2017	5046.80	20.92	5025.88
12/7/2017	5046.80	20.61	5026.19
2/13/2018	5046.80	20.22	5026.58
5/18/2018	5046.80	20.04	5026.76
10/22/2018	5046.80	19.91	5026.89
2/15/2019	5046.80	19.19	5027.61
4/15/2019	5046.80	19.03	5027.77
7/31/2019	5046.80	20.29	5026.51
10/21/2019	5046.80	20.62	5026.18
4/14/2020	5046.80	19.5	5027.30
10/19/2020	5046.80	21.46	5025.34
4/12/2021	5046.80	20.33	5026.47
10/20/2021	5046.80	21.31	5025.49
4/20/2022	5046.80	20.07	5026.73
10/18/2022	5046.80	20.73	5026.07
4/11/2023	5046.80	19.65	5027.15
10/10/2023	5046.80	21.27	5025.53

W-305			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/16/2024	5046.80	20.06	5026.74
10/15/2024	5046.80	21.85	5024.95
	Maximum Observed:	*5027.83*	*ft AMSL*
	Minimum Observed:	*5024.95*	*ft AMSL*
	Range:	*2.88*	*ft*

W-306			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5046.74	17.50	5029.24
3/8/2016	5046.74	16.53	5030.21
5/5/2016	5046.74	16.53	5030.21
8/24/2016	5046.74	17.94	5028.80
9/21/2016	5046.74	18.27	5028.47
2/20/2017	5046.74	17.32	5029.42
4/11/2017	5046.74	17.03	5029.71
4/24/2017	5046.74	16.83	5029.91
5/18/2017	5046.74	17.07	5029.67
5/24/2017	5046.74	17.08	5029.66
6/29/2017	5046.74	17.58	5029.16
7/26/2017	5046.74	17.92	5028.82
9/5/2017	5046.74	18.22	5028.52
12/7/2017	5046.74	18.06	5028.68
2/13/2018	5046.74	17.66	5029.08
5/18/2018	5046.74	17.21	5029.53
10/22/2018	5046.74	17.81	5028.93
2/15/2019	5046.74	16.85	5029.89
4/15/2019	5046.74	16.52	5030.22
7/31/2019	5046.74	17.68	5029.06
10/21/2019	5046.74	18.2	5028.54
4/14/2020	5046.74	16.85	5029.89
10/19/2020	5046.74	18.67	5028.07
4/12/2021	5046.74	17.39	5029.35
10/20/2021	5046.74	18.56	5028.18
4/20/2022	5046.74	17.12	5029.62
10/18/2022	5046.74	18.05	5028.69
4/11/2023	5046.74	16.81	5029.93
10/10/2023	5046.74	18.36	5028.38

W-306			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/16/2024	5046.74	17.26	5029.48
10/15/2024	5046.74	19.21	5027.53
	Maximum Observed:	*5030.22*	*ft AMSL*
	Minimum Observed:	*5027.53*	*ft AMSL*
	Range:	*2.69*	*ft*

W-314			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5051.10	8.39	5042.71
3/8/2016	5051.10	7.32	5043.78
5/5/2016	5051.10	6.97	5044.13
8/24/2016	5051.10	8.79	5042.31
9/21/2016	5051.10	9.23	5041.87
2/20/2017	5051.10	8.69	5042.41
4/11/2017	5051.10	8.52	5042.58
4/24/2017	5051.10	8.38	5042.72
5/18/2017	5051.10	8.75	5042.35
5/24/2017	5051.10	8.92	5042.18
6/29/2017	5051.10	9.84	5041.26
7/26/2017	5051.10	10.36	5040.74
9/5/2017	5051.10	10.37	5040.73
12/7/2017	5051.10	10.86	5040.24
2/13/2018	5051.10	10.43	5040.67
5/18/2018	5051.10	10.84	5040.26
10/22/2018	5051.10	11.43	5039.67
2/15/2019	5051.10	10.15	5040.95
4/15/2019	5051.10	9.47	5041.63
7/31/2019	5051.10	11.49	5039.61
10/21/2019	5051.10	12.25	5038.85
4/14/2020	5051.10	9.76	5041.34
10/19/2020	5051.10	12.97	5038.13
4/12/2021	5051.10	11.04	5040.06
10/20/2021	5051.10	13.00	5038.1
4/20/2022	5051.10	10.42	5040.68
10/18/2022	5051.10	11.07	5040.03
4/11/2023	5051.10	9.39	5041.71
10/10/2023	5051.10	11.94	5039.16

W-314			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/15/2024	5051.10	10.2	5040.9
10/15/2024	5051.10	13.58	5037.52
	Maximum Observed:	*5044.13*	*ft AMSL*
	Minimum Observed:	*5037.52*	*ft AMSL*
	Range:	*6.61*	*ft*

M-47A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/11/2012	5020.34	39.90	4980.44
3/12/2013	5020.34	40.22	4980.12
6/4/2013	5020.34	40.28	4980.06
9/17/2013	5020.34	39.97	4980.37
11/21/2013	5020.34	40.33	4980.01
3/26/2014	5020.34	39.83	4980.51
6/10/2014	5020.34	40.10	4980.24
6/16/2015	5020.34	40.20	4980.14
7/31/2019	5020.34	NM	
10/21/2019	5020.34	38.55	4981.79
4/14/2020	5020.34	37.89	4982.45
10/19/2020	5020.34	38.58	4981.76
4/12/2021	5020.34	38.22	4982.12
10/19/2021	5020.34	37.65	4982.69
4/19/2022	5020.34	36.74	4983.60
10/18/2022	5020.34	35.57	4984.77
4/11/2023	5020.34	34.32	4986.02
10/9/2023	5020.34	30.65	4989.69
4/15/2024	5020.34	33.8	4986.54
10/142024	5020.34	34.2	4986.14
		Maximum Observed:	*4989.69*
		Minimum Observed:	*4980.01*
		Range:	*9.69*

M-55A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
12/1/2015	5062.82	33.00	5029.82
3/7/2016	5062.82	32.59	5030.23
5/5/2016	5062.82	32.63	5030.19
8/23/2016	5062.82	33.17	5029.65
9/20/2016	5062.82	33.34	5029.48
2/14/2017	5062.82	33.08	5029.74
4/10/2017	5062.82	32.89	5029.93
4/24/2017	5062.82	32.84	5029.98
5/11/2017	5062.82	32.96	5029.86
5/23/2017	5062.82	33.03	5029.79
6/26/2017	5062.82	33.26	5029.56
7/25/2017	5062.82	33.46	5029.36
9/5/2017	5062.82	33.49	5029.33
2/13/2018	5062.82	33.45	5029.37
2/15/2019	5062.82	33.51	5029.31
4/15/2019	5062.82	33.36	5029.46
7/31/2019	5062.82	33.98	5028.84
10/21/2019	5062.82	34.13	5028.69
4/14/2020	5062.82	33.93	5028.89
10/19/2020	5062.82	34.45	5028.37
4/12/2021	5062.82	34.19	5028.63
10/20/2021	5062.82	34.55	5028.27
4/20/2022	5062.82	34.58	5028.24
4/11/2023	5062.82	34.74	5028.08
10/10/2023	5062.82	35.33	5027.49
4/16/2024	5062.82	35.15	5027.67
10/15/2024	5062.82	35.7	5027.12
		Maximum Observed:	*5030.23*
		Minimum Observed:	*5027.12*
		Range:	*3.11*

M-69A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/14/2020	5050.74	17.08	5033.66
10/19/2020	5050.74	19.39	5031.35
4/12/2021	5050.74	18.03	5032.71
10/20/2021	5050.74	19.08	5031.66
4/20/2022	5050.74	17.73	5033.01
10/18/2022	5050.74	18.56	5032.18
4/11/2023	5050.74	17.33	5033.41
10/10/2023	5050.74	19.28	5031.46
4/16/2024	5050.74	17.73	5033.011
10/25/2024	5050.74	19.37	5031.371
		Maximum Observed:	*5033.66*
		Minimum Observed:	*5031.35*
		Range:	*2.31*

M-70M			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/14/2020	5051.12	20.83	5030.29
10/19/2020	5051.12	22.86	5028.26
4/12/2021	5051.12	21.70	5029.42
10/20/2021	5051.12	22.72	5028.40
4/20/2022	5051.12	21.45	5029.67
10/18/2022	5051.12	22.07	5029.05
4/11/2023	5051.12	21.07	5030.05
10/10/2023	5051.12	22.76	5028.36
4/16/2024	5051.12	21.39	5029.73
10/15/2024	5051.12	23.08	5028.04
		Maximum Observed:	*5030.29*
		Minimum Observed:	*5028.04*
		Range:	*2.25*

W-227			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/15/2020	5122.82	31.02	5091.8
10/19/2020	5122.82	35.51	5087.31
4/12/2021	5122.82	33.95	5088.87
10/19/2021	5122.82	33.38	5089.44
4/20/2022	5122.82	31.24	5091.58
10/18/2022	5122.82	33.68	5089.14
4/11/2023	5122.82	33	5089.82
10/10/2023	5122.82	34.39	5088.43
4/15/2024	5122.82	33.86	5088.96
10/15/2024	5122.82	36.34	5086.48
		Maximum Observed:	*5091.80*
		Minimum Observed:	*5086.48*
		Range:	*5.32*

W-301			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5033.68	30.16	5003.52
6/23/2009	5033.68	30.31	5003.37
9/18/2009	5033.68	30.72	5002.96
12/9/2009	5033.68	30.66	5003.02
3/15/2010	5033.68	30.48	5003.20
6/17/2010	5033.68	30.59	5003.09
9/16/2010	5033.68	30.95	5002.73
11/18/2010	5033.68	30.77	5002.91
3/15/2011	5033.68	30.43	5003.25
6/20/2011	5033.68	30.54	5003.14
8/10/2011	5033.68	30.9	5002.78
9/7/2011	5033.68	31.05	5002.63
9/28/2011	5033.68	31.03	5002.65
12/12/2011	5033.68	30.91	5002.77
3/15/2012	5033.68	30.78	5002.90
6/25/2012	5033.68	31.13	5002.55
9/25/2012	5033.68	30.4	5003.28
10/10/2012	5033.68	31.43	5002.25
6/3/2013	5033.68	31.17	5002.51
6/9/2014	5033.68	31.12	5002.56
6/15/2015	5033.68	31.19	5002.49
8/17/2015	5033.68	31.46	5002.22
2/15/2019	5033.68	30.58	5003.10
4/15/2019	5033.68	30.76	5002.92
7/31/2019	5033.68	31.05	5002.63
10/21/2019	5033.68	31.26	5002.42
4/14/2020	5033.68	31.78	5001.90
10/19/2020	5033.68	31.51	5002.17
4/12/2021	5033.68	31.19	5002.49
10/20/2021	5033.68	31.64	5002.04
4/20/2022	5033.68	31.07	5002.61
10/18/2022	5033.68	31.19	5002.49
4/11/2023	5033.68	30.5	5003.18
10/10/2023	5033.68	31	5002.68

W-301			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/16/2024	5033.68	30.41	5003.27
10/24/2024	5033.68	30.9	5002.78
		Maximum Observed:	*5003.52*
		Minimum Observed:	*5001.90*
		Range:	*1.62*

W-302			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5036.42	32.33	5004.09
6/22/2009	5036.42	32.31	5004.11
9/18/2009	5036.42	32.55	5003.87
12/9/2009	5036.42	32.63	5003.79
3/15/2010	5036.42	32.61	5003.81
6/17/2010	5036.42	32.58	5003.84
9/16/2010	5036.42	32.77	5003.65
11/18/2010	5036.42	32.81	5003.61
3/16/2011	5036.42	32.61	5003.81
6/20/2011	5036.42	32.51	5003.91
8/10/2011	5036.42	32.71	5003.71
9/7/2011	5036.42	32.85	5003.57
9/28/2011	5036.42	32.87	5003.55
12/12/2011	5036.42	32.91	5003.51
3/15/2012	5036.42	32.89	5003.53
6/25/2012	5036.42	32.92	5003.50
9/25/2012	5036.42	33.09	5003.33
10/8/2012	5036.42	33.15	5003.27
6/4/2013	5036.42	33.16	5003.26
6/9/2014	5036.42	33.03	5003.39
6/15/2015	5036.42	33.06	5003.36
8/17/2015	5036.42	33.23	5003.19
2/15/2019	5036.42	32.39	5004.03
4/15/2019	5036.42	32.51	5003.91
7/31/2019	5036.42	32.52	5003.90
10/21/2019	5036.42	32.71	5003.71
4/14/2020	5036.42	32.50	5003.92
10/19/2020	5036.42	32.89	5003.53
4/12/2021	5036.42	32.81	5003.61
10/20/2021	5036.42	33.12	5003.3
4/20/2022	5036.42	32.72	5003.70
10/18/2022	5036.42	32.80	5003.62
4/11/2023	5036.42	32.33	5004.09
10/10/2023	5036.42	32.41	5004.01

W-302			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/16/2024	5036.42	32.12	5004.3
10/15/2024	5036.42	32.35	5004.07
		Maximum Observed:	*5004.30*
		Minimum Observed:	*5003.19*
		Range:	*1.11*

W-303			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5039.70	15.89	5023.81
6/23/2009	5039.70	16.32	5023.38
9/15/2009	5039.70	17.22	5022.48
12/9/2009	5039.70	16.48	5023.22
3/15/2010	5039.70	16.33	5023.37
6/15/2010	5039.70	16.71	5022.99
9/16/2010	5039.70	17.33	5022.37
11/18/2010	5039.70	16.75	5022.95
3/15/2011	5039.70	16.04	5023.66
6/20/2011	5039.70	16.78	5022.92
8/10/2011	5039.70	17.29	5022.41
9/7/2011	5039.70	17.55	5022.15
9/28/2011	5039.70	17.3	5022.40
12/12/2011	5039.70	16.44	5023.26
3/15/2012	5039.70	16.65	5023.05
6/25/2012	5039.70	17.61	5022.09
9/25/2012	5039.70	17.82	5021.88
10/8/2012	5039.70	17.95	5021.75
6/4/2013	5039.70	17.34	5022.36
6/9/2014	5039.70	17.47	5022.23
6/15/2015	5039.70	17.54	5022.16
8/17/2015	5039.70	17.49	5022.21
7/31/2019	5039.70	NM	
10/21/2019	5039.70	18.12	5021.58
4/14/2020	5039.70	17.27	5022.43
10/19/2020	5039.70	18.88	5020.82
4/12/2021	5039.70	17.55	5022.15
10/20/2021	5039.70	18.5	5021.2
4/20/2022	5039.70	17.54	5022.16
10/18/2022	5039.70	20.19	5019.51
4/11/2023	5039.70	17.26	5022.44
10/10/2023	5039.70	18.5	5021.2
4/16/2024	5039.70	17.65	5022.05
10/15/2024	5039.70	20.24	5019.46

W-303			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
		Maximum Observed:	*5023.81*
		Minimum Observed:	*5019.46*
		Range:	*4.35*

W-304			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5038.60	24.61	5013.99
6/22/2009	5038.60	24.8	5013.80
9/18/2009	5038.60	25.67	5012.93
12/9/2009	5038.60	25.34	5013.26
3/15/2010	5038.60	25.04	5013.56
6/17/2010	5038.60	25.21	5013.39
9/16/2010	5038.60	25.73	5012.87
11/18/2010	5038.60	25.23	5013.37
3/16/2011	5038.60	24.83	5013.77
6/20/2011	5038.60	25.08	5013.52
8/10/2011	5038.60	25.7	5012.90
9/7/2011	5038.60	25.9	5012.70
9/28/2011	5038.60	25.95	5012.65
12/7/2011	5038.60	25.7	5012.90
12/12/2011	5038.60	25.58	5013.02
3/15/2012	5038.60	25.29	5013.31
6/25/2012	5038.60	25.79	5012.81
9/25/2012	5038.60	26.32	5012.28
10/10/2012	5038.60	26.36	5012.24
6/5/2013	5038.60	25.82	5012.78
6/11/2014	5038.60	25.64	5012.96
6/17/2015	5038.60	25.83	5012.77
8/17/2015	5038.60	26.3	5012.30
2/15/2019	5038.60	24.82	5013.78
4/15/2019	5038.60	25.09	5013.51
7/31/2019	5038.60	25.97	5012.63
10/21/2019	5038.60	26.4	5012.20
4/14/2020	5038.60	25.75	5012.85
10/19/2020	5038.60	27.02	5011.58
4/12/2021	5038.60	26.34	5012.26
10/20/2021	5038.60	27.19	5011.41
4/20/2022	5038.60	26.34	5012.26
10/18/2022	5038.60	26.46	5012.14
4/11/2023	5038.60	25.63	5012.97

W-304			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/10/2023	5038.60	26.87	5011.73
4/16/2024	5038.60	25.98	5012.62
10/15/2024	5038.60	27.02	5011.58
		Maximum Observed:	*5013.99*
		Minimum Observed:	*5011.41*
		Range:	*2.58*

W-307			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5045.22	19.92	5025.30
6/22/2009	5045.22	20.21	5025.01
9/18/2009	5045.22	21.44	5023.78
12/9/2009	5045.22	20.91	5024.31
3/15/2010	5045.22	20.45	5024.77
6/17/2010	5045.22	20.78	5024.44
3/16/2011	5045.22	20.28	5024.94
6/20/2011	5045.22	20.63	5024.59
8/8/2011	5045.22	20.42	5024.80
9/28/2011	5045.22	21.79	5023.43
12/12/2011	5045.22	21.17	5024.05
3/15/2012	5045.22	20.65	5024.57
6/25/2012	5045.22	21.49	5023.73
9/25/2012	5045.22	22.22	5023.00
10/10/2012	5045.22	22.28	5022.94
6/3/2013	5045.22	21.51	5023.71
6/11/2014	5045.22	21.25	5023.97
6/17/2015	5045.22	21.49	5023.73
8/17/2015	5045.22	21.62	5023.60
10/5/2016	5045.22	22.25	5022.97
6/6/2017	5045.22	21.73	5023.49
11/7/2018	5045.22	20.74	5024.48
12/7/2018	5045.22	20.68	5024.54
2/15/2019	5045.22	20.64	5024.58
4/15/2019	5045.22	20.93	5024.29
7/31/2019	5045.22	22.19	5023.03
10/21/2019	5045.22	22.76	5022.46
4/14/2020	5045.22	21.94	5023.28

W-307			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/19/2020	5045.22	23.62	5021.60
4/12/2021	5045.22	22.8	5022.42
WELL ABANDONDED			
		Maximum Observed:	*5025.30*
		Minimum Observed:	*5021.60*
		Range:	*3.70*

W-307R			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/20/2021	5047.61	23.19	5024.42
4/20/2022	5047.61	22.11	5025.50
10/18/2022	5047.61	22.41	5025.20
4/11/2023	5047.61	21.65	5025.96
10/10/2023	5047.61	23.1	5024.51
4/16/2024	5047.61	21.99	5025.62
10/15/2024	5047.61	23.43	5024.18
		Maximum Observed:	*5025.96*
		Minimum Observed:	*5024.18*
		Range:	*1.78*

W-308			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5051.54	21.55	5029.99
6/22/2009	5051.54	21.49	5030.05
9/18/2009	5051.54	22.51	5029.03
12/9/2009	5051.54	22.36	5029.18
3/15/2010	5051.54	22.11	5029.43
6/17/2010	5051.54	22.04	5029.50
9/16/2010	5051.54	22.88	5028.66
11/18/2010	5051.54	22.59	5028.95
3/16/2011	5051.54	21.93	5029.61
6/20/2011	5051.54	21.94	5029.60
8/8/2011	5051.54	22.59	5028.95
9/28/2011	5051.54	22.91	5028.63
12/12/2011	5051.54	22.43	5029.11
3/15/2012	5051.54	22.21	5029.33
6/25/2012	5051.54	22.51	5029.03
9/25/2012	5051.54	23.17	5028.37
10/10/2012	5051.54	23.25	5028.29
6/5/2013	5051.54	22.56	5028.98
6/11/2014	5051.54	22.34	5029.20
6/17/2015	5051.54	22.39	5029.15
8/17/2015	5051.54	22.81	5028.73
10/20/2016	5051.54	23.19	5028.35
6/6/2017	5051.54	22.81	5028.73
11/7/2018	5051.54	23.44	5028.10
12/7/2018	5051.54	23.09	5028.45
2/15/2019	5051.54	22.98	5028.56
4/15/2019	5051.54	23.14	5028.40
7/31/2019	5051.54	23.98	5027.56
10/21/2019	5051.54	24.37	5027.17
4/14/2020	5051.54	23.87	5027.67
10/19/2020	5051.54	24.90	5026.64
4/12/2021	5051.54	24.59	5026.95
10/20/2021	5051.54	25.47	5026.07
4/20/2022	5051.54	24.78	5026.76

W-308			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
10/18/2022	5051.54	25.23	5026.31
4/11/2023	5051.54	24.51	5027.03
10/10/2023	5051.54	25.56	5025.98
4/16/2024	5051.54	24.97	5026.57
10/15/2024	5051.54	25.96	5025.58
		Maximum Observed:	*5030.05*
		Minimum Observed:	*5025.58*
		Range:	*4.47*

W-309			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5062.01	31.25	5030.76
6/22/2009	5062.01	31.2	5030.81
9/18/2009	5062.01	31.75	5030.26
12/9/2009	5062.01	31.77	5030.24
3/15/2010	5062.01	31.68	5030.33
6/17/2010	5062.01	31.57	5030.44
3/16/2011	5062.01	31.72	5030.29
6/20/2011	5062.01	31.64	5030.37
8/8/2011	5062.01	32.03	5029.98
9/28/2011	5062.01	32.26	5029.75
12/12/2011	5062.01	32.02	5029.99
3/15/2012	5062.01	31.98	5030.03
6/25/2012	5062.01	31.96	5030.05
9/25/2012	5062.01	32.36	5029.65
10/11/2012	5062.01	32.45	5029.56
6/5/2013	5062.01	31.97	5030.04
6/17/2015	5062.01	31.83	5030.18
8/17/2015	5062.01	32.05	5029.96
10/20/2016	5062.01	32.28	5029.73
6/6/2017	5062.01	32.09	5029.92
11/23/2018	5062.01	32.84	5029.17
12/7/2018	5062.01	32.83	5029.18
2/15/2019	5062.01	32.60	5029.41
4/15/2019	5062.01	32.83	5029.18
7/31/2019	5062.01	33.33	5028.68
10/21/2019	5062.01	33.49	5028.52
4/18/2020	5062.01	33.39	5028.62
10/18/2020	5062.01	33.94	5028.07
4/12/2021	5062.01	33.79	5028.22
10/20/2021	5062.01	34.42	5027.59
4/20/2022	5062.01	34.14	5027.87

W-309			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/11/2023	5062.01	34.28	5027.73
10/10/2023	5062.01	34.77	5027.24
4/16/2024	5062.01	34.68	5027.33
10/16/2024	5062.01	35.21	5026.8
		Maximum Observed:	*5030.81*
		Minimum Observed:	*5026.80*
		Range:	*4.01*

W-310			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5050.61	90.28	4960.33
6/23/2009	5050.61	91.43	4959.18
9/15/2009	5050.61	91.95	4958.66
12/9/2009	5050.61	90.58	4960.03
3/15/2010	5050.61	90.31	4960.30
6/15/2010	5050.61	91.13	4959.48
3/15/2011	5050.61	90.23	4960.38
6/23/2011	5050.61	93.92	4956.69
8/9/2011	5050.61	93.05	4957.56
12/7/2011	5050.61	92.65	4957.96
10/11/2012	5050.61	95.17	4955.44
6/3/2013	5050.61	95.8	4954.81
6/15/2015	5050.61	94.23	4956.38
8/17/2015	5050.61	94.25	4956.36
10/20/2016	5050.61	90.97	4959.64
6/6/2017	5050.61	89.47	4961.14
11/25/2018	5050.61	88.29	4962.32
4/14/2020	5050.61	87.38	4963.23
10/19/2020	5050.61	88.68	4961.93
4/12/2021	5050.61	89.47	4961.14
10/20/2021	5050.61	87.69	4962.92
4/20/2022	5050.61	86.63	4963.98
10/18/2022	5050.61	84.94	4965.67
4/11/2023	5050.61	82.73	4967.88
10/10/2023	5050.61	98.1	4952.51
4/16/2024	5050.61	84.08	4966.53
10/15/2024	5050.61	86.53	4964.08
		Maximum Observed:	*4967.88*
		Minimum Observed:	*4952.51*
		Range:	*15.37*

W-311			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5050.03	88.87	4961.16
6/23/2009	5050.03	89.99	4960.04
9/15/2009	5050.03	90.72	4959.31
12/9/2009	5050.03	89.31	4960.72
3/15/2010	5050.03	89.04	4960.99
6/15/2010	5050.03	89.94	4960.09
11/11/2010	5050.03	89.27	4960.76
2/17/2011	5050.03	89.68	4960.35
3/15/2011	5050.03	88.93	4961.1
6/23/2011	5050.03	92.61	4957.42
8/9/2011	5050.03	91.62	4958.41
10/11/2012	5050.03	93.91	4956.12
6/3/2013	5050.03	94.6	4955.43
6/9/2014	5050.03	93.3	4956.73
6/15/2015	5050.03	92.92	4957.11
10/2/2016	5050.03	89.76	4960.27
11/25/2018	5050.03	87.01	4963.02
7/31/2019	5050.03	NM	
10/21/2019	5050.03	87.94	4962.09
4/14/2020	5050.03	86.01	4964.02
10/19/2020	5050.03	87.34	4962.69
4/12/2021	5050.03	88.15	4961.88
10/20/2021	5050.03	86.35	4963.68
4/20/2022	5050.03	85.25	4964.78
10/18/2022	5050.03	83.57	4966.46
4/11/2023	5050.03	81.34	4968.69
10/10/2023	5050.03	84.75	4965.28
4/16/2024	5050.03	82.72	4967.31
10/15/2024	5050.03	85.42	4964.61
		Maximum Observed:	*4968.69*
		Minimum Observed:	*4955.43*
		Range:	*13.26*

W-312			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5052.01	67.01	4985.00
6/23/2009	5052.01	66.82	4985.19
9/15/2009	5052.01	119.62	4932.39
12/9/2009	5052.01	72.08	4979.93
3/15/2010	5052.01	67.65	4984.36
6/15/2010	5052.01	67.39	4984.62
11/10/2010	5052.01	67.9	4984.11
3/15/2011	5052.01	67.76	4984.25
6/22/2011	5052.01	67.66	4984.35
8/8/2011	5052.01	67.3	4984.71
10/10/2012	5052.01	68.68	4983.33
6/4/2013	5052.01	69.45	4982.56
6/10/2014	5052.01	67.74	4984.27
6/15/2015	5052.01	64.51	4987.50
8/16/2015	5052.01	64.19	4987.82
10/5/2016	5052.01	65.81	4986.20
6/6/2017	5052.01	65.92	4986.09
9/23/2018	5052.01	66.59	4985.42
4/14/2020	5052.01	67.08	4984.93
10/19/2020	5052.01	67.37	4984.64
4/12/2021	5052.01	67.60	4984.41
10/27/2021	5052.01	67.77	4984.24
4/20/2022	5052.01	67.65	4984.36
10/18/2022	5052.01	67.60	4984.41
4/11/2023	5052.01	67.23	4984.78
10/9/2023	5052.01	67.03	4984.98
4/15/2024	5052.01	66.81	4985.2
10/15/2024	5052.01	66.82	4985.19
		Maximum Observed:	*4987.82*
		Minimum Observed:	*4932.39*
		Range:	*55.43*

W-313			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
3/24/2009	5051.32	92.12	4959.2
6/23/2009	5051.32	93.15	4958.17
9/15/2009	5051.32	94.21	4957.11
12/9/2009	5051.32	92.56	4958.76
3/15/2010	5051.32	92.42	4958.9
6/15/2010	5051.32	93.03	4958.29
11/10/2010	5051.32	91.95	4959.37
2/17/2011	5051.32	92.64	4958.68
3/15/2011	5051.32	92.05	4959.27
6/22/2011	5051.32	95.08	4956.24
8/8/2011	5051.32	94.76	4956.56
10/10/2012	5051.32	97.12	4954.2
6/4/2013	5051.32	97.33	4953.99
6/10/2014	5051.32	96.31	4955.01
6/16/2015	5051.32	96.16	4955.16
8/17/2015	5051.32	96.62	4954.7
10/5/2016	5051.32	95.39	4955.93
6/6/2017	5051.32	92.18	4959.14
9/23/2018	5051.32	94.07	4957.25
7/31/2019	5051.32	NM	
10/21/2019	5051.32	92.26	4959.06
4/14/2020	5051.32	90.17	4961.15
10/19/2020	5051.32	91.51	4959.81
4/12/2021	5051.32	91.47	4959.85
10/27/2021	5051.32	90.23	4961.09
4/20/2022	5051.32	89.75	4961.57
10/18/2022	5051.32	88.19	4963.13
4/11/2023	5051.32	85.53	4965.79
10/10/2023	5051.32	89.06	4962.26

W-313			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
4/15/2024	5051.32	86.41	4964.91
10/15/2024	5051.32	89.55	4961.77
		Maximum Observed:	*4965.79*
		Minimum Observed:	*4953.99*
		Range:	*11.80*

W-317			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
2/22/2012	5022.27	41.17	4981.10
10/11/2012	5022.27	41.84	4980.43
3/12/2013	5022.27	42.12	4980.15
6/4/2013	5022.27	42.18	4980.09
9/17/2013	5022.27	41.89	4980.38
11/21/2013	5022.27	42.25	4980.02
3/26/2014	5022.27	41.71	4980.56
6/16/2015	5022.27	42.02	4980.25
12/20/2016	5022.27	41.4	4980.87
4/15/2019	5022.27	39.59	4982.68
7/31/2019	5022.27	39.92	4982.35
10/21/2019	5022.27	40.26	4982.01
4/14/2020	5022.27	39.52	4982.75
10/19/2020	5022.27	39.71	4982.56
4/12/2021	5022.27	39.78	4982.49
10/19/2021	5022.27	39.29	4982.98
4/19/2022	5022.27	38.25	4984.02
10/18/2022	5022.27	37.24	4985.03
4/11/2023	5022.27	35.96	4986.31
10/9/2023	5022.27	35.61	4986.66
4/15/2024	5022.27	35.22	4987.05
10/14/2024	5022.27	35.61	4986.66
		Maximum Observed:	*4987.05*
		Minimum Observed:	*4980.02*
		Range:	*7.03*

M-64A			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
6/29/2017	4991.90	27.39	4964.51
12/7/2017	4991.90	25.18	4966.72
2/13/2018	4991.90	25.59	4966.31
5/18/2018	4991.90	25.53	4966.37
8/2/2018	4991.90	26.01	4965.89
10/22/2018	4991.90	25.75	4966.15
2/13/2019	4991.90	25.24	4966.66
4/15/2019	4991.90	24.89	4967.01
7/31/2019	4991.90	25.46	4966.44
10/21/2019	4991.90	25.81	4966.09
4/15/2020	4991.90	25.35	4966.55
10/20/2020	4991.90	26.27	4965.63
4/12/2021	4991.90	25.92	4965.98
10/19/2021	4991.90	25.39	4966.51
4/20/2022	4991.90	25.16	4966.74
10/18/2022	4991.90	24.93	4966.97
4/11/2023	4991.90	24.35	4967.55
10/10/2023	4991.90	25.15	4966.75
10/15/2024	4991.90	25.75	4966.15
	Maximum Observed:	*4967.55*	*ft AMSL*
	Minimum Observed:	*4964.51*	*ft AMSL*
	Range:	*3.04*	*ft*

M-54			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5070.71	127.99	4942.72
3/8/2016	5070.71	125.69	4945.02
5/5/2016	5070.71	127.73	4942.98
8/24/2016	5070.71	128.52	4942.19
9/21/2016	5070.71	128.46	4942.25
2/20/2017	5070.71	124.13	4946.58
4/11/2017	5070.71	124.72	4945.99
4/24/2017	5070.71	125.37	4945.34
5/18/2017	5070.71	126.04	4944.67
5/24/2017	5070.71	126.10	4944.61
6/29/2017	5070.71	126.42	4944.29
7/26/2017	5070.71	127.53	4943.18
9/5/2017	5070.71	127.89	4942.82
12/7/2017	5070.71	124.96	4945.75
5/18/2018	5070.71	126.71	4944.00
10/22/2018	5070.71	126.54	4944.17
4/8/2019	5070.71	124.91	4945.80
10/22/2019	5070.71	126.57	4944.14
4/14/2020	5070.71	123.80	4946.91
10/19/2020	5070.71	125.32	4945.39
4/12/2021	5070.71	124.53	4946.18
10/19/2021	5070.71	125.44	4945.27
4/20/2022	5070.71	123.70	4947.01
10/18/2022	5070.71	122.93	4947.78
4/11/2023	5070.71	119.69	4951.02
10/10/2023	5070.71	123.45	4947.26
4/15/2024	5070.71	119.93	4950.78
10/15/2024	5070.71	124.00	4946.71
	Maximum Observed:	*4951.02*	*ft AMSL*
	Minimum Observed:	*4942.19*	*ft AMSL*
	Range:	*8.83*	*ft*

M-59			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5136.00	197.78	4938.22
3/8/2016	5136.00	195.67	4940.33
5/5/2016	5136.00	197.83	4938.17
8/24/2016	5136.00	198.71	4937.29
9/21/2016	5136.00	198.62	4937.38
2/20/2017	5136.00	194.12	4941.88
4/11/2017	5136.00	194.83	4941.17
4/24/2017	5136.00	195.54	4940.46
5/18/2017	5136.00	196.28	4939.72
5/24/2017	5136.00	196.28	4939.72
6/29/2017	5136.00	196.72	4939.28
7/26/2017	5136.00	197.75	4938.25
9/5/2017	5136.00	198.15	4937.85
12/7/2017	5136.00	195.11	4940.89
5/18/2018	5136.00	196.97	4939.03
10/22/2018	5136.00	196.59	4939.41
4/8/2019	5136.00	195.13	4940.87
10/22/2019	5136.00	196.78	4939.22
4/14/2020	5136.00	193.97	4942.03
10/19/2020	5136.00	195.42	4940.58
4/12/2021	5136.00	194.67	4941.33
10/19/2021	5136.00	195.56	4940.44
4/20/2022	5136.00	193.86	4942.14
10/18/2022	5136.00	193.06	4942.94
4/11/2023	5136.00	189.74	4946.26
10/10/2023	5136.00	193.64	4942.36
4/15/2024	5136.00	190.04	4945.96
10/15/2024	5136.00	198.01	4937.99
	Maximum Observed:	*4946.26*	*ft AMSL*
	Minimum Observed:	*4937.29*	*ft AMSL*
	Range:	*8.97*	*ft*

M-60			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5151.18	226.92	4924.26
3/8/2016	5151.18	224.78	4926.40
5/5/2016	5151.18	226.71	4924.47
8/24/2016	5151.18	227.51	4923.67
9/21/2016	5151.18	227.61	4923.57
2/20/2017	5151.18	223.39	4927.79
4/11/2017	5151.18	224.02	4927.16
4/24/2017	5151.18	224.64	4926.54
5/18/2017	5151.18	225.28	4925.90
5/24/2017	5151.18	225.28	4925.90
6/29/2017	5151.18	225.73	4925.45
7/26/2017	5151.18	226.69	4924.49
9/5/2017	5151.18	227.09	4924.09
12/7/2017	5151.18	224.58	4926.60
5/18/2018	5151.18	225.91	4925.27
10/22/2018	5151.18	225.98	4925.20
4/8/2019	5151.18	224.19	4926.99
10/22/2019	5151.18	226.32	4924.86
4/15/2020	5151.18	223.12	4928.06
10/19/2020	5151.18	224.76	4926.42
4/12/2021	5151.18	223.76	4927.42
10/19/2021	5151.18	225.08	4926.10
4/20/2022	5151.18	223.26	4927.92
10/18/2022	5151.18	223.22	4927.96
4/11/2023	5151.18	219.64	4931.54
10/10/2023	5151.18	223.4	4927.78
4/15/2024	5151.18	219.56	4931.62
10/15/2024	5151.18	223.95	4927.23
	Maximum Observed:	*4931.62*	*ft AMSL*
	Minimum Observed:	*4923.57*	*ft AMSL*
	Range:	*8.05*	*ft*

M-61			
Date of Measurement	**Measuring Pt Elevation [ft AMSL]**	**Water Level [ft bmp]**	**GW Elevation [ft AMSL]**
11/30/2015	5127.58	195.93	4931.65
3/8/2016	5127.58	193.88	4933.70
5/5/2016	5127.58	196.05	4931.53
8/24/2016	5127.58	196.84	4930.74
9/21/2016	5127.58	196.87	4930.71
2/20/2017	5127.58	192.34	4935.24
4/11/2017	5127.58	193.07	4934.51
4/24/2017	5127.58	193.75	4933.83
5/18/2017	5127.58	194.46	4933.12
5/24/2017	5127.58	194.31	4933.27
6/29/2017	5127.58	194.89	4932.69
7/26/2017	5127.58	195.91	4931.67
9/5/2017	5127.58	196.31	4931.27
12/7/2017	5127.58	193.48	4934.10
5/18/2018	5127.58	195.23	4932.35
10/22/2018	5127.58	194.99	4932.59
4/8/2019	5127.58	193.34	4934.24
10/22/2019	5127.58	195.25	4932.33
4/14/2020	5127.58	192.3	4935.28
10/19/2020	5127.58	193.73	4933.85
4/12/2021	5127.58	192.93	4934.65
10/19/2021	5127.58	194.04	4933.54
4/20/2022	5127.58	192.26	4935.32
10/18/2022	5127.58	191.86	4935.72
4/11/2023	5127.58	188.42	4939.16
10/10/2023	5127.58	192.28	4935.3
4/15/2024	5127.58	188.54	4939.04
10/15/2024	5127.58	192.64	4934.94
	Maximum Observed:	*4939.16*	*ft AMSL*
	Minimum Observed:	*4930.71*	*ft AMSL*
	Range:	*8.45*	*ft*

APPENDIX

E

2024 ANALYTICAL LABORATORY REPORTS

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

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JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-217864-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

my EOL

Job Notes

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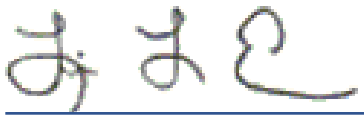

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Definitions/Glossary

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

Job ID: 550-217864-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
R4	MS/MSD RPD exceeded the method control limit. Recovery met acceptance criteria.

Metals

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

General Chemistry

Qualifier	Qualifier Description
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-217864-1 Eurofins Phoenix

Job Narrative
550-217864-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/3/2024 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.5°C and 3.5°C.

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

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

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

Sample Summary

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

Job ID: 550-217864-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217864-1	CH-CCR-M54-0424	Water	04/30/24 17:50	05/03/24 10:10
550-217864-2	CH-CCR-M59-0424	Water	04/30/24 14:20	05/03/24 10:10
550-217864-3	CH-CCR-M61-0424	Water	04/30/24 15:25	05/03/24 10:10
550-217864-4	CH-CCR-FD01-0424	Water	04/30/24 16:20	05/03/24 10:10

Detection Summary

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

Job ID: 550-217864-1

Client Sample ID: CH-CCR-M54-0424 — Lab Sample ID: 550-217864-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1500	D2	40		mg/L	20		300.0	Total/NA
Fluoride	1.3		0.40		mg/L	1		300.0	Total/NA
Sulfate	340	D2	20		mg/L	10		300.0	Total/NA
Boron	0.58		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	110		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Total Dissolved Solids	2900		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	17.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M59-0424 — Lab Sample ID: 550-217864-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2 M3 R4	40		mg/L	20		300.0	Total/NA
Fluoride	1.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	430	D2 M1 M2 R4	40		mg/L	20		300.0	Total/NA
Boron	0.50		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	86		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Total Dissolved Solids	2800		40		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.3	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M61-0424 — Lab Sample ID: 550-217864-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1400	D2	40		mg/L	20		300.0	Total/NA
Fluoride	1.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	330	D2	20		mg/L	10		300.0	Total/NA
Boron	0.51		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	90		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Total Dissolved Solids	2700		40		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-FD01-0424 — Lab Sample ID: 550-217864-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1300	D2	40		mg/L	20		300.0	Total/NA
Fluoride	1.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	330	D2	20		mg/L	10		300.0	Total/NA
Boron	0.51		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	82		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Total Dissolved Solids	2800		40		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M54-0424

Lab Sample ID: 550-217864-1

Date Collected: 04/30/24 17:50

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1500	D2	40		mg/L			05/13/24 16:12	20
Fluoride	1.3		0.40		mg/L			05/13/24 03:01	1
Sulfate	340	D2	20		mg/L			05/13/24 03:20	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.58		0.050		mg/L		05/08/24 05:43	05/13/24 12:21	1
Calcium	110		2.0		mg/L		05/08/24 05:43	05/13/24 12:21	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2900		100		mg/L			05/06/24 11:18	1
pH (SM 4500 H+ B)	7.6	H5	1.7		SU			05/14/24 15:56	1
Temperature (SM 4500 H+ B)	17.5	H5 T5	0.1		Degrees C			05/14/24 15:56	1

Client Sample ID: CH-CCR-M59-0424

Lab Sample ID: 550-217864-2

Date Collected: 04/30/24 14:20

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700	D2 M3 R4	40		mg/L			05/13/24 14:57	20
Fluoride	1.4		0.40		mg/L			05/13/24 14:32	1
Sulfate	430	D2 M1 M2 R4	40		mg/L			05/13/24 14:57	20

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.50		0.050		mg/L		05/08/24 05:43	05/13/24 12:17	1
Calcium	86		2.0		mg/L		05/08/24 05:43	05/13/24 12:17	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2800		40		mg/L			05/06/24 11:18	1
pH (SM 4500 H+ B)	7.7	H5	1.7		SU			05/15/24 11:52	1
Temperature (SM 4500 H+ B)	10.3	H5 T5	0.1		Degrees C			05/15/24 11:52	1

Client Sample ID: CH-CCR-M61-0424

Lab Sample ID: 550-217864-3

Date Collected: 04/30/24 15:25

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1400	D2	40		mg/L			05/13/24 16:37	20
Fluoride	1.4		0.40		mg/L			05/13/24 04:34	1
Sulfate	330	D2	20		mg/L			05/13/24 04:52	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.51		0.050		mg/L		05/08/24 05:43	05/13/24 12:24	1
Calcium	90		2.0		mg/L		05/08/24 05:43	05/13/24 12:24	1

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

Job ID: 550-217864-1

Client Sample ID: CH-CCR-M61-0424

Lab Sample ID: 550-217864-3

Date Collected: 04/30/24 15:25
Matrix: Water
Date Received: 05/03/24 10:10

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2700		40		mg/L			05/06/24 11:18	1
pH (SM 4500 H+ B)	7.7	H5	1.7		SU			05/15/24 11:56	1
Temperature (SM 4500 H+ B)	11.2	H5 T5	0.1		Degrees C			05/15/24 11:56	1

Client Sample ID: CH-CCR-FD01-0424

Lab Sample ID: 550-217864-4

Date Collected: 04/30/24 16:20
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300	D2	40		mg/L			05/13/24 17:02	20
Fluoride	1.4		0.40		mg/L			05/13/24 05:10	1
Sulfate	330	D2	20		mg/L			05/13/24 05:29	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.51		0.050		mg/L		05/08/24 05:43	05/13/24 12:28	1
Calcium	82		2.0		mg/L		05/08/24 05:43	05/13/24 12:28	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2800		40		mg/L			05/06/24 11:18	1
pH (SM 4500 H+ B)	7.7	H5	1.7		SU			05/15/24 11:58	1
Temperature (SM 4500 H+ B)	10.9	H5 T5	0.1		Degrees C			05/15/24 11:58	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-320753/2
Matrix: Water
Analysis Batch: 320753

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/12/24 12:09	1
Fluoride	ND		0.40		mg/L			05/12/24 12:09	1
Sulfate	ND		2.0		mg/L			05/12/24 12:09	1

Lab Sample ID: LCS 550-320753/5
Matrix: Water
Analysis Batch: 320753

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.2		mg/L		96	90 - 110		
Fluoride			4.00	3.93		mg/L		98	90 - 110		
Sulfate			20.0	19.1		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-320753/6
Matrix: Water
Analysis Batch: 320753

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.1		mg/L		95	90 - 110	1	20
Fluoride			4.00	3.90		mg/L		97	90 - 110	1	20
Sulfate			20.0	19.0		mg/L		95	90 - 110	0	20

Lab Sample ID: 550-217859-A-2 MS ^100
Matrix: Water
Analysis Batch: 320753

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2000	D2	2000	3910	D2	mg/L		97	80 - 120		
Fluoride	ND	D1 D5	400	386	D2	mg/L		97	80 - 120		
Sulfate	2800	D2	2000	4600	D2	mg/L		91	80 - 120		

Lab Sample ID: 550-217859-A-2 MSD ^100
Matrix: Water
Analysis Batch: 320753

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2000	D2	2000	3880	D2	mg/L		96	80 - 120	1	20
Fluoride	ND	D1 D5	400	381	D2	mg/L		95	80 - 120	2	20
Sulfate	2800	D2	2000	4580	D2	mg/L		90	80 - 120	1	20

Lab Sample ID: MB 550-320803/2
Matrix: Water
Analysis Batch: 320803

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/13/24 12:26	1
Fluoride	ND		0.40		mg/L			05/13/24 12:26	1
Sulfate	ND		2.0		mg/L			05/13/24 12:26	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-320803/5
Matrix: Water
Analysis Batch: 320803

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.5		mg/L		98	90 - 110		
Fluoride			4.00	3.96		mg/L		99	90 - 110		
Sulfate			20.0	19.4		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320803/6
Matrix: Water
Analysis Batch: 320803

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.5		mg/L		98	90 - 110	0	20
Fluoride			4.00	3.96		mg/L		99	90 - 110	0	20
Sulfate			20.0	19.4		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-217864-2 MS
Matrix: Water
Analysis Batch: 320803

Client Sample ID: CH-CCR-M59-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1700	M3 R4 D2	400	2380	D2 M3	mg/L		174	80 - 120		
Fluoride	ND	D1 D5	80.0	79.2	D2	mg/L		99	80 - 120		
Sulfate	430	M1 M2 R4 D2	400	927	D2 M1	mg/L		123	80 - 120		

Lab Sample ID: 550-217864-2 MSD
Matrix: Water
Analysis Batch: 320803

Client Sample ID: CH-CCR-M59-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1700	M3 R4 D2	400	1720	D2 M3 R4	mg/L		10	80 - 120	32	20
Fluoride	ND	D1 D5	80.0	80.2	D2	mg/L		100	80 - 120	1	20
Sulfate	430	M1 M2 R4 D2	400	725	D2 M2 R4	mg/L		73	80 - 120	24	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-320488/1-A
Matrix: Water
Analysis Batch: 320856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320488

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/08/24 05:43	05/13/24 12:00	1
Calcium	ND		2.0		mg/L		05/08/24 05:43	05/13/24 12:00	1

Lab Sample ID: LCS 550-320488/2-A
Matrix: Water
Analysis Batch: 320856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320488

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.07		mg/L		107	85 - 115		
Calcium			21.0	21.3		mg/L		101	85 - 115		

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

Lab Sample ID: LCSD 550-320488/3-A
Matrix: Water
Analysis Batch: 320856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320488

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron			1.00	1.04		mg/L		104	85 - 115	3	20
Calcium			21.0	20.7		mg/L		98	85 - 115	3	20

Lab Sample ID: 550-217864-2 MS
Matrix: Water
Analysis Batch: 320856

Client Sample ID: CH-CCR-M59-0424
Prep Type: Total/NA
Prep Batch: 320488

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	0.50		1.00	1.60		mg/L		110	70 - 130		
Calcium	86		21.0	106	M3	mg/L		98	70 - 130		

Lab Sample ID: 550-217864-2 MSD
Matrix: Water
Analysis Batch: 320856

Client Sample ID: CH-CCR-M59-0424
Prep Type: Total/NA
Prep Batch: 320488

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.50		1.00	1.54		mg/L		104	70 - 130	4	20
Calcium	86		21.0	103	M3	mg/L		80	70 - 130	4	20

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

Lab Sample ID: MB 550-320387/1
Matrix: Water
Analysis Batch: 320387

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			05/06/24 11:18	1

Lab Sample ID: LCS 550-320387/2
Matrix: Water
Analysis Batch: 320387

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	972		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320387/3
Matrix: Water
Analysis Batch: 320387

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	972		mg/L		97	90 - 110	0	10

Lab Sample ID: 550-217864-2 DU
Matrix: Water
Analysis Batch: 320387

Client Sample ID: CH-CCR-M59-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2800			2690		mg/L				4	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-320888/37
Matrix: Water
Analysis Batch: 320888

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.4	98.5 - 101.5		

Lab Sample ID: 550-217859-A-20 DU
Matrix: Water
Analysis Batch: 320888

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.6			7.6		SU				0.3	5
Temperature	16.4			16.3		Degrees C				0.6	

Lab Sample ID: LCSSRM 550-321004/1
Matrix: Water
Analysis Batch: 321004

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-321004/13
Matrix: Water
Analysis Batch: 321004

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.1	98.5 - 101.5		

Lab Sample ID: 550-217864-2 DU
Matrix: Water
Analysis Batch: 321004

Client Sample ID: CH-CCR-M59-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.7	H5		7.7	H5	SU				0	5
Temperature	10.3	H5 T5		10.4	H5	Degrees C				1	

HPLC/IC

Analysis Batch: 320753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217864-1	CH-CCR-M54-0424	Total/NA	Water	300.0	
550-217864-1	CH-CCR-M54-0424	Total/NA	Water	300.0	
550-217864-3	CH-CCR-M61-0424	Total/NA	Water	300.0	
550-217864-3	CH-CCR-M61-0424	Total/NA	Water	300.0	
550-217864-4	CH-CCR-FD01-0424	Total/NA	Water	300.0	
550-217864-4	CH-CCR-FD01-0424	Total/NA	Water	300.0	
MB 550-320753/2	Method Blank	Total/NA	Water	300.0	
LCS 550-320753/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-320753/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217859-A-2 MS ^100	Matrix Spike	Total/NA	Water	300.0	
550-217859-A-2 MSD ^100	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 320803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217864-1	CH-CCR-M54-0424	Total/NA	Water	300.0	
550-217864-2	CH-CCR-M59-0424	Total/NA	Water	300.0	
550-217864-2	CH-CCR-M59-0424	Total/NA	Water	300.0	
550-217864-3	CH-CCR-M61-0424	Total/NA	Water	300.0	
550-217864-4	CH-CCR-FD01-0424	Total/NA	Water	300.0	
MB 550-320803/2	Method Blank	Total/NA	Water	300.0	
LCS 550-320803/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-320803/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217864-2 MS	CH-CCR-M59-0424	Total/NA	Water	300.0	
550-217864-2 MSD	CH-CCR-M59-0424	Total/NA	Water	300.0	

Metals

Prep Batch: 320488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217864-1	CH-CCR-M54-0424	Total/NA	Water	200.7	
550-217864-2	CH-CCR-M59-0424	Total/NA	Water	200.7	
550-217864-3	CH-CCR-M61-0424	Total/NA	Water	200.7	
550-217864-4	CH-CCR-FD01-0424	Total/NA	Water	200.7	
MB 550-320488/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-320488/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-320488/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217864-2 MS	CH-CCR-M59-0424	Total/NA	Water	200.7	
550-217864-2 MSD	CH-CCR-M59-0424	Total/NA	Water	200.7	

Analysis Batch: 320856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217864-1	CH-CCR-M54-0424	Total/NA	Water	200.7 Rev 4.4	320488
550-217864-2	CH-CCR-M59-0424	Total/NA	Water	200.7 Rev 4.4	320488
550-217864-3	CH-CCR-M61-0424	Total/NA	Water	200.7 Rev 4.4	320488
550-217864-4	CH-CCR-FD01-0424	Total/NA	Water	200.7 Rev 4.4	320488
MB 550-320488/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	320488
LCS 550-320488/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	320488
LCSD 550-320488/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	320488
550-217864-2 MS	CH-CCR-M59-0424	Total/NA	Water	200.7 Rev 4.4	320488
550-217864-2 MSD	CH-CCR-M59-0424	Total/NA	Water	200.7 Rev 4.4	320488

General Chemistry

Analysis Batch: 320387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217864-1	CH-CCR-M54-0424	Total/NA	Water	SM 2540C	
550-217864-2	CH-CCR-M59-0424	Total/NA	Water	SM 2540C	
550-217864-3	CH-CCR-M61-0424	Total/NA	Water	SM 2540C	
550-217864-4	CH-CCR-FD01-0424	Total/NA	Water	SM 2540C	
MB 550-320387/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320387/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320387/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217864-2 DU	CH-CCR-M59-0424	Total/NA	Water	SM 2540C	

Analysis Batch: 320888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217864-1	CH-CCR-M54-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320888/37	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-217859-A-20 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 321004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217864-2	CH-CCR-M59-0424	Total/NA	Water	SM 4500 H+ B	
550-217864-3	CH-CCR-M61-0424	Total/NA	Water	SM 4500 H+ B	
550-217864-4	CH-CCR-FD01-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-321004/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-321004/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-217864-2 DU	CH-CCR-M59-0424	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

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

Job ID: 550-217864-1

Client Sample ID: CH-CCR-M54-0424

Lab Sample ID: 550-217864-1

Date Collected: 04/30/24 17:50

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		20	320803	RDC	EET PHX	05/13/24 16:12
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/13/24 03:01
Total/NA	Analysis	300.0		10	320753	RDC	EET PHX	05/13/24 03:20
Total/NA	Prep	200.7			320488	SGO	EET PHX	05/08/24 05:43
Total/NA	Analysis	200.7 Rev 4.4		1	320856	GLW	EET PHX	05/13/24 12:21
Total/NA	Analysis	SM 2540C		1	320387	RGG	EET PHX	05/06/24 11:18 - 05/08/24 15:22 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:56

Client Sample ID: CH-CCR-M59-0424

Lab Sample ID: 550-217864-2

Date Collected: 04/30/24 14:20

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320803	RDC	EET PHX	05/13/24 14:32
Total/NA	Analysis	300.0		20	320803	RDC	EET PHX	05/13/24 14:57
Total/NA	Prep	200.7			320488	SGO	EET PHX	05/08/24 05:43
Total/NA	Analysis	200.7 Rev 4.4		1	320856	GLW	EET PHX	05/13/24 12:17
Total/NA	Analysis	SM 2540C		1	320387	RGG	EET PHX	05/06/24 11:18 - 05/08/24 15:22 [1]
Total/NA	Analysis	SM 4500 H+ B		1	321004	ELN	EET PHX	05/15/24 11:52

Client Sample ID: CH-CCR-M61-0424

Lab Sample ID: 550-217864-3

Date Collected: 04/30/24 15:25

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		20	320803	RDC	EET PHX	05/13/24 16:37
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/13/24 04:34
Total/NA	Analysis	300.0		10	320753	RDC	EET PHX	05/13/24 04:52
Total/NA	Prep	200.7			320488	SGO	EET PHX	05/08/24 05:43
Total/NA	Analysis	200.7 Rev 4.4		1	320856	GLW	EET PHX	05/13/24 12:24
Total/NA	Analysis	SM 2540C		1	320387	RGG	EET PHX	05/06/24 11:18 - 05/08/24 15:22 [1]
Total/NA	Analysis	SM 4500 H+ B		1	321004	ELN	EET PHX	05/15/24 11:56

Client Sample ID: CH-CCR-FD01-0424

Lab Sample ID: 550-217864-4

Date Collected: 04/30/24 16:20

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		20	320803	RDC	EET PHX	05/13/24 17:02
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/13/24 05:10
Total/NA	Analysis	300.0		10	320753	RDC	EET PHX	05/13/24 05:29
Total/NA	Prep	200.7			320488	SGO	EET PHX	05/08/24 05:43
Total/NA	Analysis	200.7 Rev 4.4		1	320856	GLW	EET PHX	05/13/24 12:28

Lab Chronicle

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

Job ID: 550-217864-1

Client Sample ID: CH-CCR-FD01-0424
Date Collected: 04/30/24 16:20
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217864-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	320387	RGG	EET PHX	05/06/24 11:18 - 05/08/24 15:22 [1]
Total/NA	Analysis	SM 4500 H+ B		1	321004	ELN	EET PHX	05/15/24 11:58

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-217864-1
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	Temperature

Method Summary

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

Job ID: 550-217864-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
200.7	Preparation, Total Metals	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

217864

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller	Lab Contact: Linda Eshelman	COC No:
Arizona Public Service	(480) 209-6529		1 of 1 COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**		Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS		**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____		Walk-in Client:
FAX	☑ 2 weeks		Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Cholla Power Plant (BAM)	☐ 2 days		Job / SDG No.:
PO #: 300592358	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca)	SM 4500-HB (pH)	SM 2540C (TDS)		Sample Specific Notes:
CH-CCR-M54-0424	04/30/24	1750	G	W	2	N	N	X	X	X	X	-01	Low Flow
CH-CCR-M59-0424	04/30/24	1420	G	W	2	N	Y	X	X	X	X	-02	Low Flow, MS/MSD
CH-CCR-M61-0424	04/30/24	1525	G	W	2	N	N	X	X	X	X	-03	"
CH-CCR-FD01-0424	04/30/24	1620	G	W	2	N	N	X	X	X	X	-04	"
								1	4	1	1		

550-217864 Chain of Custody

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

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Method 200.8 with collision cell

3.5°C / 2-5°C / ICE / CPO / ICE

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	5/3/24 1010			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: EETA-PHX	Date/Time: 5/3/24 1010

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

5/16/2024
Page 20 of 21

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217864-1

Login Number: 217864

List Source: Eurofins Phoenix

List Number: 1

Creator: Gravlin, Andrea

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/6/2024 4:50:59 PM

JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-218993-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Authorized for release by
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Definitions/Glossary

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

Job ID: 550-218993-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.

Metals

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

General Chemistry

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
B7	Target analyte detected in method blank at or above method reporting limit. Concentration found in the sample was 10 times above the concentration found in the blank.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-218993-1 Eurofins Phoenix

Job Narrative
550-218993-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 5/29/2024 1:58 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.1°C.

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

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

General Chemistry
Method 2540C_Calcd: The method blank for analytical batch 550-321689 contained Total Dissolved Soldis (TDS) above the reporting limit (RL). Associated sample(s) were not re-analyzed because results were greater than 10X the value found in the method blank.

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

Sample Summary

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

Job ID: 550-218993-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-218993-1	CH-CCR-M60-0424	Water	05/28/24 15:46	05/29/24 13:58

Detection Summary

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

Job ID: 550-218993-1

Client Sample ID: CH-CCR-M60-0424 — Lab Sample ID: 550-218993-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1200	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	330	D2	20		mg/L	10		300.0	Total/NA
Boron	0.58		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	96		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Total Dissolved Solids	2800	B7	40		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	19.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 550-218993-1

Client Sample ID: CH-CCR-M60-0424

Date Collected: 05/28/24 15:46
Date Received: 05/29/24 13:58

Lab Sample ID: 550-218993-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200	D2	200		mg/L			06/01/24 04:17	100
Fluoride	1.4		0.40		mg/L			05/31/24 01:53	1
Sulfate	330	D2	20		mg/L			05/31/24 02:11	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.58		0.050		mg/L		05/30/24 07:57	06/03/24 22:09	1
Calcium	96		2.0		mg/L		05/30/24 07:57	06/03/24 22:09	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2800	B7	40		mg/L			05/30/24 10:18	1
pH (SM 4500 H+ B)	7.6	H5	1.7		SU			06/06/24 18:10	1
Temperature (SM 4500 H+ B)	19.0	H5 T5	0.1		Degrees C			06/06/24 18:10	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-321712/38
Matrix: Water
Analysis Batch: 321712

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/30/24 23:07	1
Fluoride	ND		0.40		mg/L			05/30/24 23:07	1
Sulfate	ND		2.0		mg/L			05/30/24 23:07	1

Lab Sample ID: LCS 550-321712/39
Matrix: Water
Analysis Batch: 321712

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	18.8		mg/L		94	90 - 110		
Fluoride			4.00	4.10		mg/L		102	90 - 110		
Sulfate			20.0	18.7		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-321712/40
Matrix: Water
Analysis Batch: 321712

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	18.9		mg/L		94	90 - 110	0	20
Fluoride			4.00	4.10		mg/L		103	90 - 110	0	20
Sulfate			20.0	18.8		mg/L		94	90 - 110	0	20

Lab Sample ID: 550-218992-E-1 MS ^100
Matrix: Water
Analysis Batch: 321712

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2000	D2	2000	3990	D2	mg/L		97	80 - 120		
Fluoride	ND	D1 D5	400	405	D2	mg/L		101	80 - 120		
Sulfate	2700	D2	2000	4580	D2	mg/L		93	80 - 120		

Lab Sample ID: 550-218992-E-1 MSD ^100
Matrix: Water
Analysis Batch: 321712

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2000	D2	2000	4000	D2	mg/L		98	80 - 120	0	20
Fluoride	ND	D1 D5	400	406	D2	mg/L		101	80 - 120	0	20
Sulfate	2700	D2	2000	4580	D2	mg/L		93	80 - 120	0	20

Lab Sample ID: MB 550-321789/2
Matrix: Water
Analysis Batch: 321789

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/31/24 13:39	1
Fluoride	ND		0.40		mg/L			05/31/24 13:39	1
Sulfate	ND		2.0		mg/L			05/31/24 13:39	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-321789/5
Matrix: Water
Analysis Batch: 321789

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.3		mg/L		97	90 - 110		
Fluoride			4.00	3.87		mg/L		97	90 - 110		
Sulfate			20.0	19.3		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-321789/6
Matrix: Water
Analysis Batch: 321789

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.3		mg/L		97	90 - 110	0	20
Fluoride			4.00	3.89		mg/L		97	90 - 110	1	20
Sulfate			20.0	19.3		mg/L		96	90 - 110	0	20

Lab Sample ID: 550-219072-I-1 MS ^10
Matrix: Water
Analysis Batch: 321789

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	430	D2	200	642	D2	mg/L		105	80 - 120		
Fluoride	4.4	D2	40.0	42.8	D2	mg/L		96	80 - 120		
Sulfate	180	D2	200	373	D2	mg/L		97	80 - 120		

Lab Sample ID: 550-219072-I-1 MSD ^10
Matrix: Water
Analysis Batch: 321789

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	430	D2	200	641	D2	mg/L		104	80 - 120	0	20
Fluoride	4.4	D2	40.0	43.1	D2	mg/L		97	80 - 120	1	20
Sulfate	180	D2	200	373	D2	mg/L		97	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-321676/1-A
Matrix: Water
Analysis Batch: 321826

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321676

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/30/24 07:57	06/01/24 00:49	1
Calcium	ND		2.0		mg/L		05/30/24 07:57	06/01/24 00:49	1

Lab Sample ID: MB 550-321676/1-A
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321676

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/30/24 07:57	06/03/24 20:41	1
Calcium	ND		2.0		mg/L		05/30/24 07:57	06/03/24 20:41	1

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

Lab Sample ID: LCS 550-321676/2-A
Matrix: Water
Analysis Batch: 321826

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	1.09		mg/L		109	85 - 115
Calcium	21.0	22.0		mg/L		105	85 - 115

Lab Sample ID: LCS 550-321676/2-A
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	1.12		mg/L		112	85 - 115
Calcium	21.0	22.5		mg/L		107	85 - 115

Lab Sample ID: LCSD 550-321676/3-A
Matrix: Water
Analysis Batch: 321826

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.00	1.09		mg/L		109	85 - 115	0	20
Calcium	21.0	22.1		mg/L		105	85 - 115	1	20

Lab Sample ID: LCSD 550-321676/3-A
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.00	1.12		mg/L		112	85 - 115	1	20
Calcium	21.0	22.6		mg/L		107	85 - 115	0	20

Lab Sample ID: 550-218937-E-1-A MS
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	4.6		1.00	5.51	M3	mg/L		89	70 - 130
Calcium	430	M3	21.0	410	M3	mg/L		-108	70 - 130

Lab Sample ID: 550-218937-E-1-B MSD
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	4.6		1.00	5.42	M3	mg/L		80	70 - 130	2	20
Calcium	430	M3	21.0	428	M3	mg/L		-22	70 - 130	4	20

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

Lab Sample ID: MB 550-321689/1
Matrix: Water
Analysis Batch: 321689

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	24.0	B1	20		mg/L			05/30/24 10:18	1

Lab Sample ID: LCS 550-321689/2
Matrix: Water
Analysis Batch: 321689

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	1010		mg/L		101	90 - 110		

Lab Sample ID: LCSD 550-321689/3
Matrix: Water
Analysis Batch: 321689

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1000		mg/L		100	90 - 110	1	10

Lab Sample ID: 550-218976-S-1 DU
Matrix: Water
Analysis Batch: 321689

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1200	B7		1220		mg/L				0.3	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-322064/1
Matrix: Water
Analysis Batch: 322064

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.7	98.5 - 101.5		

Lab Sample ID: 550-219015-B-1 DU
Matrix: Water
Analysis Batch: 322064

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.1			7.1		SU				0.2	5
Temperature	17.7			17.9		Degrees C				1	

HPLC/IC

Analysis Batch: 321712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218993-1	CH-CCR-M60-0424	Total/NA	Water	300.0	
550-218993-1	CH-CCR-M60-0424	Total/NA	Water	300.0	
MB 550-321712/38	Method Blank	Total/NA	Water	300.0	
LCS 550-321712/39	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-321712/40	Lab Control Sample Dup	Total/NA	Water	300.0	
550-218992-E-1 MS ^100	Matrix Spike	Total/NA	Water	300.0	
550-218992-E-1 MSD ^100	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 321789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218993-1	CH-CCR-M60-0424	Total/NA	Water	300.0	
MB 550-321789/2	Method Blank	Total/NA	Water	300.0	
LCS 550-321789/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-321789/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-219072-I-1 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-219072-I-1 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 321676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218993-1	CH-CCR-M60-0424	Total/NA	Water	200.7	
MB 550-321676/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-321676/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-321676/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-218937-E-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-218937-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 321826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-321676/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	321676
LCS 550-321676/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	321676
LCSD 550-321676/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	321676

Analysis Batch: 321905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218993-1	CH-CCR-M60-0424	Total/NA	Water	200.7 Rev 4.4	321676
MB 550-321676/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	321676
LCS 550-321676/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	321676
LCSD 550-321676/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	321676
550-218937-E-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	321676
550-218937-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	321676

General Chemistry

Analysis Batch: 321689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218993-1	CH-CCR-M60-0424	Total/NA	Water	SM 2540C	
MB 550-321689/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-321689/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-321689/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-218976-S-1 DU	Duplicate	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 322064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218993-1	CH-CCR-M60-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-322064/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-219015-B-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

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

Job ID: 550-218993-1

Client Sample ID: CH-CCR-M60-0424

Date Collected: 05/28/24 15:46
Date Received: 05/29/24 13:58

Lab Sample ID: 550-218993-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		100	321789	MMH	EET PHX	06/01/24 04:17
Total/NA	Analysis	300.0		1	321712	RDC	EET PHX	05/31/24 01:53
Total/NA	Analysis	300.0		10	321712	RDC	EET PHX	05/31/24 02:11
Total/NA	Prep	200.7			321676	SGO	EET PHX	05/30/24 07:57
Total/NA	Analysis	200.7 Rev 4.4		1	321905	GLW	EET PHX	06/03/24 22:09
Total/NA	Analysis	SM 2540C		1	321689	JLO	EET PHX	05/30/24 10:18 - 06/03/24 11:13 [1]
Total/NA	Analysis	SM 4500 H+ B		1	322064	ELN	EET PHX	06/06/24 18:10

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-218993-1
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-09-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	Temperature

Method Summary

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

Job ID: 550-218993-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
200.7	Preparation, Total Metals	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

218993

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

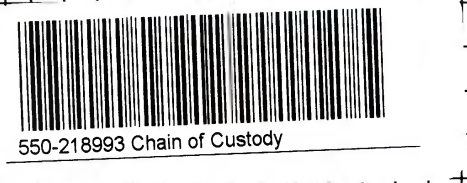
TestAmerica Laboratories, Inc.

Client Contact	Cody Miller		Date:	COC No:
Arizona Public Service	480-209-6529	Lab Contact: Linda Eshelman	Carrier:	1 of 1 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAM)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca)	SM 4500-HB (pH)	SM 2540C (TDS)		Sample Specific Notes:
CH-CCR-M60-0424	05/28/24	15:46	G	W	2	N		X	X	X	X	-01	Low Flow
								1	4	1	1		

550-218993 Chain of Custody

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



Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Method 200.8 with collision cell

2-14 ICE/CDO

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	5/29/24 1358			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: EETA PHX	Date/Time: 5/29/24 @ 1358

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

6/6/2024

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218993-1

Login Number: 218993
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 7/17/2024 3:24:56 PM

JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plant (BAM)

JOB NUMBER

550-220345-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

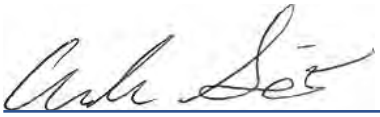
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Authorized for release by
Amanda Seawright, Project Manager I
amanda.seawright@et.eurofinsus.com
(602)437-3340

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Definitions/Glossary

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

Job ID: 550-220345-1
SDG: APS Cholla Power Plant (BAM)

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-220345-1 Eurofins Phoenix

Job Narrative
550-220345-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/2/2024 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.5°C.

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

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

Sample Summary

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

Job ID: 550-220345-1
SDG: APS Cholla Power Plant (BAM)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-220345-1	CH-CCR-M60-0724	Water	07/01/24 13:56	07/02/24 15:00
550-220345-2	CH-CCR-M59-0724	Water	07/01/24 14:53	07/02/24 15:00
550-220345-3	CH-CCR-FD01-0724	Water	07/01/24 16:20	07/02/24 15:00

Detection Summary

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

Job ID: 550-220345-1
SDG: APS Cholla Power Plant (BAM)

Client Sample ID: CH-CCR-M60-0724 — Lab Sample ID: 550-220345-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	0.52		0.050		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-M59-0724 — Lab Sample ID: 550-220345-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1300		40		mg/L	20		300.0	Total/NA
Sulfate	350		40		mg/L	20		300.0	Total/NA

Client Sample ID: CH-CCR-FD01-0724 — Lab Sample ID: 550-220345-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	0.51		0.050		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 550-220345-1
SDG: APS Cholla Power Plant (BAM)

Client Sample ID: CH-CCR-M60-0724

Lab Sample ID: 550-220345-1
Matrix: Water
Date Collected: 07/01/24 13:56
Date Received: 07/02/24 15:00

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.52		0.050		mg/L		07/08/24 05:16	07/09/24 18:17	1

Client Sample ID: CH-CCR-M59-0724

Lab Sample ID: 550-220345-2
Matrix: Water
Date Collected: 07/01/24 14:53
Date Received: 07/02/24 15:00

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300		40		mg/L			07/03/24 14:58	20
Sulfate	350		40		mg/L			07/03/24 14:58	20

Client Sample ID: CH-CCR-FD01-0724

Lab Sample ID: 550-220345-3
Matrix: Water
Date Collected: 07/01/24 16:20
Date Received: 07/02/24 15:00

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.51		0.050		mg/L		07/08/24 05:16	07/09/24 18:20	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-323268/2
Matrix: Water
Analysis Batch: 323268

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			07/03/24 12:12	1
Sulfate	ND		2.0		mg/L			07/03/24 12:12	1

Lab Sample ID: LCS 550-323268/5
Matrix: Water
Analysis Batch: 323268

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	20.5		mg/L		102	90 - 110		
Sulfate			20.0	20.3		mg/L		102	90 - 110		

Lab Sample ID: LCSD 550-323268/6
Matrix: Water
Analysis Batch: 323268

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	20.9		mg/L		104	90 - 110	2	20
Sulfate			20.0	20.8		mg/L		104	90 - 110	2	20

Lab Sample ID: 550-220341-A-1 MS ^100
Matrix: Water
Analysis Batch: 323268

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	3300	D2	2000	5350	D2	mg/L		102	80 - 120		
Sulfate	2600	D2	2000	4550	D2	mg/L		97	80 - 120		

Lab Sample ID: 550-220341-A-1 MSD ^100
Matrix: Water
Analysis Batch: 323268

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3300	D2	2000	5340	D2	mg/L		101	80 - 120	0	20
Sulfate	2600	D2	2000	4540	D2	mg/L		97	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-323345/1-A
Matrix: Water
Analysis Batch: 323434

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 323345

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		07/08/24 05:16	07/09/24 17:36	1

Lab Sample ID: LCS 550-323345/2-A
Matrix: Water
Analysis Batch: 323434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 323345

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.01		mg/L		101	85 - 115		

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

Lab Sample ID: LCSD 550-323345/3-A
Matrix: Water
Analysis Batch: 323434

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 323345

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron			1.00	1.02		mg/L		102	85 - 115	2	20

Lab Sample ID: 550-220263-H-1-A MS
Matrix: Water
Analysis Batch: 323434

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 323345

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	ND		1.00	1.04		mg/L		102	70 - 130		

Lab Sample ID: 550-220263-H-1-B MSD
Matrix: Water
Analysis Batch: 323434

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 323345

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	ND		1.00	1.02		mg/L		101	70 - 130	2	20

QC Association Summary

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

Job ID: 550-220345-1
SDG: APS Cholla Power Plant (BAM)

HPLC/IC

Analysis Batch: 323268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-220345-2	CH-CCR-M59-0724	Total/NA	Water	300.0	
MB 550-323268/2	Method Blank	Total/NA	Water	300.0	
LCS 550-323268/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-323268/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-220341-A-1 MS ^100	Matrix Spike	Total/NA	Water	300.0	
550-220341-A-1 MSD ^100	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 323345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-220345-1	CH-CCR-M60-0724	Total/NA	Water	200.7	
550-220345-3	CH-CCR-FD01-0724	Total/NA	Water	200.7	
MB 550-323345/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-323345/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-323345/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-220263-H-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-220263-H-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 323434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-220345-1	CH-CCR-M60-0724	Total/NA	Water	200.7 Rev 4.4	323345
550-220345-3	CH-CCR-FD01-0724	Total/NA	Water	200.7 Rev 4.4	323345
MB 550-323345/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	323345
LCS 550-323345/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	323345
LCSD 550-323345/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	323345
550-220263-H-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	323345
550-220263-H-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	323345

Lab Chronicle

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

Job ID: 550-220345-1
SDG: APS Cholla Power Plant (BAM)

Client Sample ID: CH-CCR-M60-0724

Lab Sample ID: 550-220345-1

Date Collected: 07/01/24 13:56

Matrix: Water

Date Received: 07/02/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			323345	SGO	EET PHX	07/08/24 05:16
Total/NA	Analysis	200.7 Rev 4.4		1	323434	GLW	EET PHX	07/09/24 18:17

Client Sample ID: CH-CCR-M59-0724

Lab Sample ID: 550-220345-2

Date Collected: 07/01/24 14:53

Matrix: Water

Date Received: 07/02/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		20	323268	AG	EET PHX	07/03/24 14:58

Client Sample ID: CH-CCR-FD01-0724

Lab Sample ID: 550-220345-3

Date Collected: 07/01/24 16:20

Matrix: Water

Date Received: 07/02/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			323345	SGO	EET PHX	07/08/24 05:16
Total/NA	Analysis	200.7 Rev 4.4		1	323434	GLW	EET PHX	07/09/24 18:20

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-220345-1
Project/Site: CCR Groundwater Monitoring
SDG: APS Cholla Power Plant (BAM)

Laboratory: Eurofins Phoenix

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-25

Method Summary

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

Job ID: 550-220345-1
SDG: APS Cholla Power Plant (BAM)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.7	Preparation, Total Metals	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

220345

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

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller		Date:	COC No:
Arizona Public Service	(480) 209-6529	Lab Contact: Linda Eshelman	Carrier:	1 of 1 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below ____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAM)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 300.0 (Cl, SO4)	EPA 200.7 - Totals Boron													Sample Specific Notes:
CH-CCR-M60-0724	070124	1350	G	W	1	N	N		X			-01										Low-Flow
CH-CCR-M59-0724	070124	1453	G	W	1	N	N	X				-02										"
CH-CCR-FD01-0724	070124	1020	G	W	1	N	N		X			-03										"

550-220345 Chain of Custody

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

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.5°C

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	WSP	07/02/24 1500			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				EETA PHX	7/2/24 15:00

CDO

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

7/17/2024

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-220345-1
SDG Number: APS Cholla Power Plant (BAM)

Login Number: 220345
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 19, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW78A-0424	0.8 ± 0.2	< 0.8	0.8 ± 0.2
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

Robert L. Metzger, Ph.D., C.H.P. 5/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 19, 2024 (Sample Date) 10:12 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74294

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW78A-0424

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 18, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW77A-0424	< 0.5	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 18, 2024 (Sample Date) 11:24 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

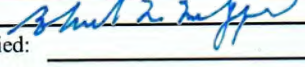
Specimen Number: RSE74295

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW77A-0424

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 17, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W317-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 17, 2024 (Sample Date) 9:58 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

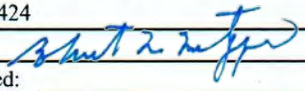
Specimen Number: RSE74296

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W317-0424

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 17, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD04-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

Robert L. Metzger, Ph.D., C.H.P. 5/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 17, 2024 (Sample Date) 16:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

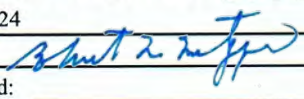
Specimen Number: RSE74297

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD04-0424

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 19, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W302-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 19, 2024 (Sample Date) 9:05 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74298

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W302-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Gmail

Pat Flannery <admin@radsafe.com>

APS Cholla SA1 Samples - COCs 0424

1 message

Hartman, Bradley <bradley.hartman@wsp.com> Mon, May 6, 2024 at 9:57 AM
To: "admin@radsafe.com" <admin@radsafe.com>
Cc: "Cody.Miller@aps.com" <cody.miller@aps.com>

Hi Pat,

The COCs submitted over the last 3 weeks from WSP contained "0423" on the COC. That was a mistake. They should have read "0424", how it is presented on the bottle label.

If you have any questions, please reach out.
Thanks,

Brad Hartman

Associate Consultant - Geologist

(330) 614-9983

WSP USA Earth and Environmental, Inc.

4600 East Washington Street, Suite 600

Phoenix, Arizona 85034

wsp.com

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Client Information	
Name:	**Natalie Chrisman/602-250-3608**
Company	**Arizona Public Service**
Address	**4801 Cholla Lake Rd, Joseph City, AZ 86032**
Phone	**928-587-0319**
Site	**APS Cholla Power Plant (BAP)**

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-MW78A-0423	04/19/24	1012	**GW**						X	X	X						74294
CH-CCR-MW77A-0423	04/18/24	1124	**GW**						X	X	X						74295
CH-CCR-W317-0423	04/17/24	958	**GW**						X	X	X						74296
CH-CCR-FD04-0423	04/17/24	1620	**GW**						X	X	X						74297
CH-CCR-W302-0423	04/19/24	905	**GW**						X	X	X						74298

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300590342

Instructions/Comments
Method HPGe

Relinquished By: Brad Hartman	Company: WSP	Date/time: 4.9.24 1610	Received By: Pat Flannery		Company:	Date/time: 4/19/24 4:10
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 23, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M52A-0424	< 0.6	0.9 ± 0.4	0.9 ± 0.4

Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 23, 2024 (Sample Date) 16:29 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	0.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	0.9 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74348

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M52A-0424

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 23, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M53A-0424	< 0.6	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 23, 2024 (Sample Date) 13:04 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74349

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M53A-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 22, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M55A-0424	< 0.6	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 22, 2024 (Sample Date) 10:49 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74350

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M55A-0424

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 25, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW69A-0424	< 0.6	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 25, 2024 (Sample Date) 9:58 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74351

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW69A-0424

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 25, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW70M-0424	< 0.6	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 25, 2024 (Sample Date) 11:27 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74352

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW70M-0424

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 24, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW73A-0424	< 0.6	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 24, 2024 (Sample Date) 15:27 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74353

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW73A-0424

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 24, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW74M-0424	< 0.5	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 24, 2024 (Sample Date) 12:04 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74354

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW74M-0424

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 23, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W301-0424	< 0.5	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 23, 2024 (Sample Date) 9:52 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74355

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W301-0424

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 23, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W303-0424	< 0.5	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

5/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 23, 2024 (Sample Date) 11:16 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74356

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W303-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 22, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W304-0424	< 0.5	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 22, 2024 (Sample Date) 16:34 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

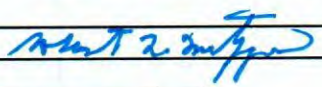
Specimen Number: RSE74357

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W304-0424

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 23, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W306-0424	< 0.5	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

5/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 23, 2024 (Sample Date) 14:02 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74358

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W306-0424

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 22, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W307R-0424	< 0.5	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 22, 2024 (Sample Date) 14:46 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74359

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W307R-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 22, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD03-0424	< 0.5	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 22, 2024 (Sample Date) 16:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74360

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD03-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 22, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W308-0424	< 0.5	1.2 ± 0.4	1.2 ± 0.4
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 22, 2024 (Sample Date) 13:35 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	1.2 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	1.2 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74361

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W308-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 22, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W309-0424	< 0.5	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 22, 2024 (Sample Date) 9:49 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74362

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W309-0424

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information	
Name:	Natalie Chrisman/602-250-3608
Company	Arizona Public Service
Address	4801 Cholla Lake Rd, Joseph City, AZ 86032
Phone	928-587-0319
Site	APS Cholla Power Plant (BAP)

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-M52A-0423	04/23/24	1629	GW						X	X	X						74348
CH-CCR-M53A-0423	04/23/24	1304	GW						X	X	X						74349
CH-CCR-M55A-0423	04/22/24	1049	GW						X	X	X						74350
CH-CCR-MW69A-0423	04/25/24	958	GW						X	X	X						74351
CH-CCR-MW70M-0423	04/25/24	1127	GW						X	X	X						74352
CH-CCR-MW73A-0423	04/24/24	1527	GW						X	X	X						74353
CH-CCR-MW74M-0423	04/24/24	1204	GW						X	X	X						74354
CH-CCR-W301-0423	04/23/24	952	GW						X	X	X						74355
CH-CCR-W303-0423	04/23/24	1116	GW						X	X	X						74356
CH-CCR-W304-0423	04/22/24	1634	GW						X	X	X						74357

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300590342

Instructions/Comments
Method HPGe

14-26-24

Relinquished By:	Company: WSE	Date/time: 1205	Received By:		Company: RSE	Date/time: 4/26/24
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time: 12:08
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Client Information	
Name:	Natalie Chrisman/602-250-3608
Company	Arizona Public Service
Address	4801 Cholla Lake Rd, Joseph City, AZ 86032
Phone	928-587-0319
Site	APS Cholla Power Plant (BAP)

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-W306-0423	04/23/24	1402	GW						X	X	X						74358
CH-CCR-W307R-0423	04/22/24	1446	GW						X	X	X						74359
CH-CCR-FD03-0423	04/22/24	1620	GW						X	X	X						74360
CH-CCR-W308-0423	04/22/24	1335	GW						X	X	X						74361
CH-CCR-W309-0423	04/22/24	949	GW						X	X	X						74362

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300590342

4-26-24

Instructions/Comments
Method HPGe

Relinquished By: [illegible]	Company: WSP	Date/time: 1208	Received By: [signature]		Company: RSE	Date/time: 4/26/24	
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time: 12:08	
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Gmail

Pat Flannery <admin@radsafe.com>

APS Cholla SA1 Samples - COCs 0424

1 message

Hartman, Bradley <bradley.hartman@wsp.com> Mon, May 6, 2024 at 9:57 AM
To: "admin@radsafe.com" <admin@radsafe.com>
Cc: "Cody.Miller@aps.com" <cody.miller@aps.com>

Hi Pat,

The COCs submitted over the last 3 weeks from WSP contained "0423" on the COC. That was a mistake. They should have read "0424", how it is presented on the bottle label.

If you have any questions, please reach out.
Thanks,

wsp

Brad Hartman

Associate Consultant - Geologist

(330) 614-9983

WSP USA Earth and Environmental, Inc.

4600 East Washington Street, Suite 600

Phoenix, Arizona 85034

wsp.com

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eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 5/2/2024 7:08:30 PM

JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plank (BAP)

JOB NUMBER

550-217325-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

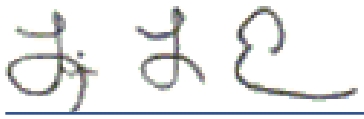
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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5/2/2024 7:08:30 PM

Authorized for release by
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Metals

Qualifier	Qualifier Description
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-217325-1 — Eurofins Phoenix

Job Narrative
550-217325-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/19/2024 3:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.0°C, 2.8°C and 4.4°C.

HPLC/IC
Method 300_ORGFMS: Due to the high concentration of Chloride, Fluoride and Sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-319563 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

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

Metals
Method 200.7 - Total Recoverable: The following samples were diluted due to the presence of S which interferes with Li: CH-CCR-MW78A-0424 (550-217325-6), (550-217325-D-6-C MS ^5), (550-217325-D-6-D MSD ^5), (550-217325-D-6-B PDS ^5) and (550-217325-D-6-B SD ^25). Elevated reporting limits (RLs) are provided.

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

General Chemistry
Method 2540C_Calcd: The sample duplicate (DUP) precision for analytical batch 550-319720 was outside control limits. Sample non-homogeneity is suspected.

Method SM5310_DOC_B - Dissolved: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(CCB 550-319849/22) and (MB 550-319849/6)

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

Sample Summary

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

Job ID: 550-217325-1
SDG: APS Cholla Power Plank (BAP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217325-1	CH-CCR-W302-0424	Water	04/19/24 09:05	04/19/24 15:45
550-217325-2	CH-CCR-W302-0424	Water	04/19/24 09:05	04/19/24 15:45
550-217325-3	CH-CCR-W317-0424	Water	04/17/24 09:58	04/19/24 15:45
550-217325-4	CH-CCR-MW77A-0424	Water	04/18/24 11:24	04/19/24 15:45
550-217325-5	CH-CCR-MW77A-0424	Water	04/18/24 11:24	04/19/24 15:45
550-217325-6	CH-CCR-MW78A-0424	Water	04/19/24 10:12	04/19/24 15:45
550-217325-7	CH-CCR-MW78A-0424	Water	04/19/24 10:12	04/19/24 15:45
550-217325-8	CH-CCR-FD04-0424	Water	04/17/24 16:20	04/19/24 15:45

Detection Summary

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

Job ID: 550-217325-1
SDG: APS Cholla Power Plank (BAP)

Client Sample ID: CH-CCR-W302-0424 — Lab Sample ID: 550-217325-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3500	D2	200		mg/L	100		300.0	Total/NA
Sulfate	2000	D2	40		mg/L	20		300.0	Total/NA
Boron	0.61		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	790		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.14		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	170		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.0		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	390	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0021		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.013		0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.019		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0060		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0051	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.00096		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8800		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W302-0424 — Lab Sample ID: 550-217325-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.1		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	6.1		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W317-0424 — Lab Sample ID: 550-217325-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1500	D2	200		mg/L	100		300.0	Total/NA
Sulfate	610	D2	20		mg/L	10		300.0	Total/NA
Boron	0.20		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	350	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	50	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0055		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.036	M1	0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0033		0.0010		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0019	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.00075		0.00050		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	3600		100		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW77A-0424 — Lab Sample ID: 550-217325-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3200	D2	100		mg/L	50		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

Client Sample ID: CH-CCR-MW77A-0424 (Continued) — Lab Sample ID: 550-217325-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Sulfate	3800	D2	100		mg/L	50		300.0	Total/NA
Boron	0.77		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	590		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	120		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.69		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.2		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3400		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	470	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0022		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0080		0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0065		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0054		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0057	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0037		0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	220		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW77A-0424 — Lab Sample ID: 550-217325-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.69		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.1		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	5.5		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.5		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW78A-0424 — Lab Sample ID: 550-217325-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2700	D2	100		mg/L	50		300.0	Total/NA
Sulfate	2200	D2	100		mg/L	50		300.0	Total/NA
Boron	0.43		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	760		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.17		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	150		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	5.5		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	12		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1900		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	180	T5	100		ug/L	5		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0020		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.011		0.00050		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0019		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0074	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0011		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.36		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW78A-0424 (Continued) — Lab Sample ID: 550-217325-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7900		100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW78A-0424 — Lab Sample ID: 550-217325-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.16		0.10		mg/L	1		200.7	Dissolved
Manganese	5.4		0.010		mg/L	1		200.7	Dissolved
Arsenic	1.9		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	1.9		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	0.99		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.97		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.99		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-FD04-0424 — Lab Sample ID: 550-217325-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3700	D2	200		mg/L	100		300.0	Total/NA
Sulfate	610	D2	20		mg/L	10		300.0	Total/NA
Boron	0.20		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	380		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	57	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0054		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.034		0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0024		0.0010		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0018	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.00080		0.00050		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	3700		100		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	13.3	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 550-217325-1
SDG: APS Cholla Power Plank (BAP)

Client Sample ID: CH-CCR-W302-0424

Date Collected: 04/19/24 09:05
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217325-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3500**	**D2**	200		mg/L			04/23/24 16:09	100
Fluoride	ND		0.40		mg/L			04/22/24 15:07	1
Sulfate	**2000**	**D2**	40		mg/L			04/22/24 15:26	20

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.61**		0.050		mg/L		04/24/24 07:43	04/26/24 22:32	1
Calcium	**790**		2.0		mg/L		04/24/24 07:43	04/26/24 22:32	1
Iron	**0.14**		0.10		mg/L		04/24/24 07:43	04/26/24 22:32	1
Magnesium	**170**		2.0		mg/L		04/24/24 07:43	04/26/24 22:32	1
Manganese	ND		0.010		mg/L		04/24/24 07:43	04/26/24 22:32	1
Manganese	ND		0.50		mg/L		04/24/24 07:43	04/29/24 18:05	50
Potassium	**9.0**		0.50		mg/L		04/24/24 07:43	04/26/24 22:32	1
Sodium	**2100**		25		mg/L		04/24/24 07:43	04/29/24 18:05	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:43	04/26/24 22:32	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**390**	**T5**	20		ug/L		04/24/24 08:35	04/25/24 05:16	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:34	04/25/24 17:45	1
Arsenic	**0.0021**		0.00050		mg/L		04/22/24 09:34	04/25/24 17:45	1
Barium	**0.013**		0.00050		mg/L		04/22/24 09:34	04/25/24 17:45	1
Chromium	**0.019**		0.0010		mg/L		04/22/24 09:34	04/25/24 17:45	1
Cobalt	**0.0060**		0.00050		mg/L		04/22/24 09:34	04/25/24 17:45	1
Lead	ND		0.00050		mg/L		04/22/24 09:34	04/25/24 17:45	1
Molybdenum	**0.0051**	**T5**	0.00050		mg/L		04/22/24 09:34	04/25/24 17:45	1
Selenium	**0.00096**		0.00050		mg/L		04/22/24 09:34	04/29/24 17:54	1
Thallium	ND		0.00010		mg/L		04/22/24 09:34	04/25/24 17:45	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:34	04/25/24 17:45	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			04/25/24 15:50	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:40	1
Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			04/25/24 12:35	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/25/24 12:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			04/25/24 12:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/25/24 12:35	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/25/24 12:35	1
Total Dissolved Solids (SM 2540C)	**8800**		100		mg/L			04/26/24 15:30	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			04/30/24 15:07	1

Client Sample ID: CH-CCR-W302-0424

Lab Sample ID: 550-217325-1

Date Collected: 04/19/24 09:05
Matrix: Water
Date Received: 04/19/24 15:45

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	10.9	H5 T5	0.1		Degrees C			04/30/24 15:07	1

Client Sample ID: CH-CCR-W302-0424

Lab Sample ID: 550-217325-2

Date Collected: 04/19/24 09:05
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/24/24 07:43	04/26/24 22:35	1
Manganese	ND		0.010		mg/L		04/24/24 07:43	04/26/24 22:35	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.1		0.50		ug/L		04/22/24 09:34	04/25/24 17:47	1
Cobalt	6.1		0.50		ug/L		04/22/24 09:34	04/25/24 17:47	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.1		0.50		mg/L			04/25/24 17:48	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.1		0.50		mg/L			04/25/24 17:48	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.1		0.50		mg/L			04/25/24 17:48	1

Client Sample ID: CH-CCR-W317-0424

Lab Sample ID: 550-217325-3

Date Collected: 04/17/24 09:58
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1500	D2	200		mg/L			04/23/24 14:54	100
Fluoride	ND		0.40		mg/L			04/22/24 13:54	1
Sulfate	610	D2	20		mg/L			04/22/24 14:49	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.20		0.050		mg/L		04/24/24 07:43	04/26/24 22:28	1
Calcium	350	M3	2.0		mg/L		04/24/24 07:43	04/26/24 22:28	1
Beryllium	ND		0.0010		mg/L		04/24/24 07:43	04/26/24 22:28	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	50	T5	20		ug/L		04/24/24 08:35	04/25/24 05:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:34	04/25/24 17:43	1
Arsenic	0.0055		0.00050		mg/L		04/22/24 09:34	04/25/24 17:43	1
Barium	0.036	M1	0.00050		mg/L		04/22/24 09:34	04/25/24 17:43	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:34	04/25/24 17:43	1
Chromium	0.0033		0.0010		mg/L		04/22/24 09:34	04/25/24 17:43	1

Client Sample ID: CH-CCR-W317-0424

Lab Sample ID: 550-217325-3

Date Collected: 04/17/24 09:58
Matrix: Water
Date Received: 04/19/24 15:45

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND		0.00050		mg/L		04/22/24 09:34	04/25/24 17:43	1
Lead	ND		0.00050		mg/L		04/22/24 09:34	04/25/24 17:43	1
Molybdenum	**0.0019**	**T5**	0.00050		mg/L		04/22/24 09:34	04/25/24 17:43	1
Selenium	**0.00075**		0.00050		mg/L		04/22/24 09:34	04/29/24 17:52	1
Thallium	ND		0.00010		mg/L		04/22/24 09:34	04/25/24 17:43	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**3600**		100		mg/L			04/24/24 16:37	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			04/30/24 15:08	1
Temperature (SM 4500 H+ B)	**11.9**	**H5 T5**	0.1		Degrees C			04/30/24 15:08	1

Client Sample ID: CH-CCR-MW77A-0424

Lab Sample ID: 550-217325-4

Date Collected: 04/18/24 11:24
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3200**	**D2**	100		mg/L			04/22/24 16:03	50
Fluoride	ND		0.40		mg/L			04/22/24 15:44	1
Sulfate	**3800**	**D2**	100		mg/L			04/22/24 16:03	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.77**		0.050		mg/L		04/24/24 07:43	04/26/24 22:38	1
Calcium	**590**		2.0		mg/L		04/24/24 07:43	04/26/24 22:38	1
Iron	ND		0.10		mg/L		04/24/24 07:43	04/26/24 22:38	1
Magnesium	**120**		2.0		mg/L		04/24/24 07:43	04/26/24 22:38	1
Manganese	**0.69**		0.010		mg/L		04/24/24 07:43	04/26/24 22:38	1
Potassium	**9.2**		0.50		mg/L		04/24/24 07:43	04/26/24 22:38	1
Sodium	**3400**		25		mg/L		04/24/24 07:43	04/29/24 18:09	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:43	04/26/24 22:38	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**470**	**T5**	20		ug/L		04/24/24 08:35	04/25/24 05:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:34	04/25/24 17:49	1
Arsenic	**0.0022**		0.00050		mg/L		04/22/24 09:34	04/25/24 17:49	1
Barium	**0.0080**		0.00050		mg/L		04/22/24 09:34	04/25/24 17:49	1
Chromium	**0.0065**		0.0010		mg/L		04/22/24 09:34	04/25/24 17:49	1
Cobalt	**0.0054**		0.00050		mg/L		04/22/24 09:34	04/25/24 17:49	1
Lead	ND		0.0025		mg/L		04/22/24 09:34	04/29/24 17:46	5
Molybdenum	**0.0057**	**T5**	0.00050		mg/L		04/22/24 09:34	04/25/24 17:49	1
Selenium	**0.0037**		0.0025		mg/L		04/22/24 09:34	04/29/24 17:46	5

Client Sample ID: CH-CCR-MW77A-0424

Lab Sample ID: 550-217325-4

Date Collected: 04/18/24 11:24
Matrix: Water
Date Received: 04/19/24 15:45

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.00050		mg/L		04/22/24 09:34	04/29/24 17:46	5
Cadmium	ND		0.00010		mg/L		04/22/24 09:34	04/25/24 17:49	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:28	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			04/25/24 15:51	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:42	1
Alkalinity as CaCO3 (SM 2320B)	**220**		6.0		mg/L			04/25/24 12:48	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/25/24 12:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**220**		6.0		mg/L			04/25/24 12:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/25/24 12:48	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/25/24 12:48	1
Total Dissolved Solids (SM 2540C)	**12000**		100		mg/L			04/25/24 14:13	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			04/30/24 15:09	1
Temperature (SM 4500 H+ B)	**12.2**	**H5 T5**	0.1		Degrees C			04/30/24 15:09	1

Client Sample ID: CH-CCR-MW77A-0424

Lab Sample ID: 550-217325-5

Date Collected: 04/18/24 11:24
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/24/24 07:43	04/26/24 22:42	1
Manganese	**0.69**		0.010		mg/L		04/24/24 07:43	04/26/24 22:42	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.1**		0.50		ug/L		04/22/24 09:34	04/25/24 17:51	1
Cobalt	**5.5**		0.50		ug/L		04/22/24 09:34	04/25/24 17:51	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.5**		0.50		mg/L			04/25/24 18:27	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.5**		0.50		mg/L			04/25/24 18:27	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.5**		0.50		mg/L			04/25/24 18:27	1

Client Sample ID: CH-CCR-MW78A-0424

Lab Sample ID: 550-217325-6

Date Collected: 04/19/24 10:12
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2700**	**D2**	100		mg/L			04/22/24 16:39	50

Client Sample ID: CH-CCR-MW78A-0424

Date Collected: 04/19/24 10:12
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217325-6

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			04/22/24 16:21	1
Sulfate	**2200**	**D2**	100		mg/L			04/22/24 16:39	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.43**		0.050		mg/L		04/24/24 07:43	04/26/24 22:45	1
Calcium	**760**		2.0		mg/L		04/24/24 07:43	04/26/24 22:45	1
Iron	**0.17**		0.10		mg/L		04/24/24 07:43	04/26/24 22:45	1
Magnesium	**150**		2.0		mg/L		04/24/24 07:43	04/26/24 22:45	1
Manganese	**5.5**		0.010		mg/L		04/24/24 07:43	04/26/24 22:45	1
Potassium	**12**		0.50		mg/L		04/24/24 07:43	04/26/24 22:45	1
Sodium	**1900**		25		mg/L		04/24/24 07:43	04/29/24 18:12	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:43	04/26/24 22:45	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**180**	**T5**	100		ug/L		04/25/24 09:21	05/01/24 16:26	5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:34	04/25/24 17:53	1
Arsenic	**0.0020**		0.00050		mg/L		04/22/24 09:34	04/25/24 17:53	1
Barium	**0.011**		0.00050		mg/L		04/22/24 09:34	04/25/24 17:53	1
Chromium	ND		0.0010		mg/L		04/22/24 09:34	04/25/24 17:53	1
Cobalt	**0.0019**		0.00050		mg/L		04/22/24 09:34	04/25/24 17:53	1
Lead	ND		0.00050		mg/L		04/22/24 09:34	04/25/24 17:53	1
Molybdenum	**0.0074**	**T5**	0.00050		mg/L		04/22/24 09:34	04/25/24 17:53	1
Selenium	**0.0011**		0.00050		mg/L		04/22/24 09:34	04/29/24 17:56	1
Thallium	ND		0.00010		mg/L		04/22/24 09:34	04/25/24 17:53	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:34	04/25/24 17:53	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.36**		0.050		mg/L			04/25/24 15:53	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:44	1
Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			04/30/24 13:48	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 13:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			04/30/24 13:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 13:48	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 13:48	1
Total Dissolved Solids (SM 2540C)	**7900**		100		mg/L			04/25/24 14:39	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			04/30/24 15:12	1
Temperature (SM 4500 H+ B)	**12.0**	**H5 T5**	0.1		Degrees C			04/30/24 15:12	1

Client Sample ID: CH-CCR-MW78A-0424

Lab Sample ID: 550-217325-7

Date Collected: 04/19/24 10:12
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.16**		0.10		mg/L		04/24/24 07:43	04/26/24 22:49	1
Manganese	**5.4**		0.010		mg/L		04/24/24 07:43	04/26/24 22:49	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.9**		0.50		ug/L		04/22/24 09:34	04/25/24 17:55	1
Cobalt	**1.9**		0.50		ug/L		04/22/24 09:34	04/25/24 17:55	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.99**		0.50		mg/L			04/25/24 18:42	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.97**		0.50		mg/L			04/25/24 18:42	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.99**		0.50		mg/L			04/25/24 18:42	1

Client Sample ID: CH-CCR-FD04-0424

Lab Sample ID: 550-217325-8

Date Collected: 04/17/24 16:20
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3700**	**D2**	200		mg/L			04/24/24 20:38	100
Fluoride	ND		0.40		mg/L			04/22/24 18:14	1
Sulfate	**610**	**D2**	20		mg/L			04/22/24 18:32	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.20**		0.050		mg/L		04/24/24 07:43	04/26/24 22:52	1
Calcium	**380**		2.0		mg/L		04/24/24 07:43	04/26/24 22:52	1
Beryllium	ND		0.0010		mg/L		04/24/24 07:43	04/26/24 22:52	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**57**	**T5**	20		ug/L		04/25/24 09:21	04/26/24 18:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:42	04/25/24 17:57	1
Arsenic	**0.0054**		0.00050		mg/L		04/22/24 09:42	04/25/24 17:57	1
Barium	**0.034**		0.00050		mg/L		04/22/24 09:42	04/25/24 17:57	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:42	04/25/24 17:57	1
Chromium	**0.0024**		0.0010		mg/L		04/22/24 09:42	04/25/24 17:57	1
Cobalt	ND		0.00050		mg/L		04/22/24 09:42	04/25/24 17:57	1
Lead	ND		0.00050		mg/L		04/22/24 09:42	04/25/24 17:57	1
Molybdenum	**0.0018**	**T5**	0.00050		mg/L		04/22/24 09:42	04/25/24 17:57	1
Selenium	**0.00080**		0.00050		mg/L		04/22/24 09:42	04/29/24 17:58	1
Thallium	ND		0.00010		mg/L		04/22/24 09:42	04/25/24 17:57	1

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

Job ID: 550-217325-1
SDG: APS Cholla Power Plank (BAP)

Client Sample ID: CH-CCR-FD04-0424
Date Collected: 04/17/24 16:20
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217325-8
Matrix: Water

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3700		100		mg/L			04/24/24 16:37	1
pH (SM 4500 H+ B)	7.7	H5	1.7		SU			04/30/24 15:14	1
Temperature (SM 4500 H+ B)	13.3	H5 T5	0.1		Degrees C			04/30/24 15:14	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-319563/2
Matrix: Water
Analysis Batch: 319563

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			04/22/24 12:22	1
Fluoride	ND		0.40		mg/L			04/22/24 12:22	1
Sulfate	ND		2.0		mg/L			04/22/24 12:22	1

Lab Sample ID: LCS 550-319563/5
Matrix: Water
Analysis Batch: 319563

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.0		mg/L		95	90 - 110		
Fluoride			4.00	3.87		mg/L		97	90 - 110		
Sulfate			20.0	19.0		mg/L		95	90 - 110		

Lab Sample ID: LCSD 550-319563/6
Matrix: Water
Analysis Batch: 319563

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.2		mg/L		96	90 - 110	1	20
Fluoride			4.00	3.91		mg/L		98	90 - 110	1	20
Sulfate			20.0	19.1		mg/L		96	90 - 110	1	20

Lab Sample ID: 550-217325-3 MS
Matrix: Water
Analysis Batch: 319563

Client Sample ID: CH-CCR-W317-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	540	E2 M3	20.0	525	E2 M3	mg/L		-60	80 - 120		
Fluoride	ND		4.00	4.07		mg/L		94	80 - 120		
Sulfate	420	E2 M3	20.0	417	E2 M3	mg/L		-12	80 - 120		

Lab Sample ID: 550-217325-3 MSD
Matrix: Water
Analysis Batch: 319563

Client Sample ID: CH-CCR-W317-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	540	E2 M3	20.0	524	E2 M3	mg/L		-64	80 - 120	0	20
Fluoride	ND		4.00	4.16		mg/L		96	80 - 120	2	20
Sulfate	420	E2 M3	20.0	417	E2 M3	mg/L		-12	80 - 120	0	20

Lab Sample ID: MB 550-319630/2
Matrix: Water
Analysis Batch: 319630

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			04/23/24 12:49	1
Fluoride	ND		0.40		mg/L			04/23/24 12:49	1
Sulfate	ND		2.0		mg/L			04/23/24 12:49	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-319630/5
Matrix: Water
Analysis Batch: 319630

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.6		mg/L		98	90 - 110		
Fluoride			4.00	3.97		mg/L		99	90 - 110		
Sulfate			20.0	19.5		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-319630/6
Matrix: Water
Analysis Batch: 319630

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.6		mg/L		98	90 - 110	0	20
Fluoride			4.00	3.97		mg/L		99	90 - 110	0	20
Sulfate			20.0	19.5		mg/L		97	90 - 110	0	20

Lab Sample ID: MB 550-319716/2
Matrix: Water
Analysis Batch: 319716

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			04/24/24 12:42	1
Fluoride	ND		0.40		mg/L			04/24/24 12:42	1
Sulfate	ND		2.0		mg/L			04/24/24 12:42	1

Lab Sample ID: LCS 550-319716/5
Matrix: Water
Analysis Batch: 319716

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.3		mg/L		96	90 - 110		
Fluoride			4.00	3.91		mg/L		98	90 - 110		
Sulfate			20.0	19.2		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-319716/6
Matrix: Water
Analysis Batch: 319716

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.3		mg/L		96	90 - 110	0	20
Fluoride			4.00	3.91		mg/L		98	90 - 110	0	20
Sulfate			20.0	19.2		mg/L		96	90 - 110	0	20

Lab Sample ID: 550-217307-A-1 MS ^10
Matrix: Water
Analysis Batch: 319716

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	490	D2	200	699	D2	mg/L		102	80 - 120		
Fluoride	ND		40.0	39.1		mg/L		98	80 - 120		
Sulfate	42		200	233		mg/L		95	80 - 120		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-217307-A-1 MSD ^10
Matrix: Water
Analysis Batch: 319716

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	490	D2	200	697	D2	mg/L		101	80 - 120	0	20
Fluoride	ND		40.0	39.2		mg/L		98	80 - 120	0	20
Sulfate	42		200	233		mg/L		95	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-319662/1-A
Matrix: Water
Analysis Batch: 319899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319662

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		04/24/24 07:43	04/26/24 22:11	1
Boron	ND		0.050		mg/L		04/24/24 07:43	04/26/24 22:11	1
Calcium	ND		2.0		mg/L		04/24/24 07:43	04/26/24 22:11	1
Calcium	ND		2.0		mg/L		04/24/24 07:43	04/26/24 22:11	1
Iron	ND		0.10		mg/L		04/24/24 07:43	04/26/24 22:11	1
Iron	ND		0.10		mg/L		04/24/24 07:43	04/26/24 22:11	1
Magnesium	ND		2.0		mg/L		04/24/24 07:43	04/26/24 22:11	1
Magnesium	ND		2.0		mg/L		04/24/24 07:43	04/26/24 22:11	1
Manganese	ND		0.010		mg/L		04/24/24 07:43	04/26/24 22:11	1
Manganese	ND		0.010		mg/L		04/24/24 07:43	04/26/24 22:11	1
Potassium	ND		0.50		mg/L		04/24/24 07:43	04/26/24 22:11	1
Potassium	ND		0.50		mg/L		04/24/24 07:43	04/26/24 22:11	1
Sodium	ND		0.50		mg/L		04/24/24 07:43	04/26/24 22:11	1
Beryllium	ND		0.0010		mg/L		04/24/24 07:43	04/26/24 22:11	1
Beryllium	ND		0.0010		mg/L		04/24/24 07:43	04/26/24 22:11	1

Lab Sample ID: MB 550-319662/1-A
Matrix: Water
Analysis Batch: 320080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319662

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		0.50		mg/L		04/24/24 07:43	04/29/24 17:45	1

Lab Sample ID: LCS 550-319662/2-A
Matrix: Water
Analysis Batch: 319899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319662

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.03		mg/L		103	85 - 115		
Boron			1.00	1.03		mg/L		103	85 - 115		
Calcium			21.0	20.5		mg/L		98	85 - 115		
Calcium			21.0	20.5		mg/L		98	85 - 115		
Iron			1.00	0.970		mg/L		97	85 - 115		
Iron			1.00	0.970		mg/L		97	85 - 115		
Magnesium			21.0	21.4		mg/L		102	85 - 115		
Magnesium			21.0	21.4		mg/L		102	85 - 115		
Manganese			1.00	0.972		mg/L		97	85 - 115		
Manganese			1.00	0.972		mg/L		97	85 - 115		

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

Lab Sample ID: LCS 550-319662/2-A
Matrix: Water
Analysis Batch: 319899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319662

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	20.0	19.5		mg/L		98	85 - 115
Potassium	20.0	19.5		mg/L		98	85 - 115
Sodium	20.0	19.3		mg/L		96	85 - 115
Beryllium	1.00	0.991		mg/L		99	85 - 115
Beryllium	1.00	0.991		mg/L		99	85 - 115

Lab Sample ID: LCS 550-319662/2-A
Matrix: Water
Analysis Batch: 320080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319662

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	20.0	19.4		mg/L		97	85 - 115

Lab Sample ID: LCSD 550-319662/3-A
Matrix: Water
Analysis Batch: 319899

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319662

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.00	1.06		mg/L		106	85 - 115	2	20
Boron	1.00	1.06		mg/L		106	85 - 115	2	20
Calcium	21.0	21.2		mg/L		101	85 - 115	3	20
Calcium	21.0	21.2		mg/L		101	85 - 115	3	20
Iron	1.00	1.01		mg/L		101	85 - 115	4	20
Iron	1.00	1.01		mg/L		101	85 - 115	4	20
Magnesium	21.0	22.2		mg/L		106	85 - 115	4	20
Magnesium	21.0	22.2		mg/L		106	85 - 115	4	20
Manganese	1.00	1.00		mg/L		100	85 - 115	3	20
Manganese	1.00	1.00		mg/L		100	85 - 115	3	20
Potassium	20.0	20.2		mg/L		101	85 - 115	3	20
Potassium	20.0	20.2		mg/L		101	85 - 115	3	20
Sodium	20.0	19.9		mg/L		100	85 - 115	3	20
Beryllium	1.00	1.02		mg/L		102	85 - 115	3	20
Beryllium	1.00	1.02		mg/L		102	85 - 115	3	20

Lab Sample ID: LCSD 550-319662/3-A
Matrix: Water
Analysis Batch: 320080

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319662

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	20.0	20.4		mg/L		102	85 - 115	5	20

Lab Sample ID: 550-217325-3 MS
Matrix: Water
Analysis Batch: 319899

Client Sample ID: CH-CCR-W317-0424
Prep Type: Total/NA
Prep Batch: 319662

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.20		1.00	1.29		mg/L		110	70 - 130
Calcium	350	M3	21.0	374	M3	mg/L		99	70 - 130
Beryllium	ND		1.00	1.06		mg/L		106	70 - 130

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

Lab Sample ID: 550-217325-3 MSD — **Client Sample ID: CH-CCR-W317-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319899 — **Prep Batch: 319662**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.20		1.00	1.28		mg/L		109	70 - 130	1	20
Calcium	350	M3	21.0	368	M3	mg/L		69	70 - 130	2	20
Beryllium	ND		1.00	1.06		mg/L		106	70 - 130	0	20

Lab Sample ID: MB 280-650668/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 650950 — **Prep Batch: 650668**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20		ug/L		04/24/24 08:35	04/25/24 02:39	1

Lab Sample ID: LCS 280-650668/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 650950 — **Prep Batch: 650668**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			1000	994		ug/L		99	90 - 112		

Lab Sample ID: 550-217325-3 MS — **Client Sample ID: CH-CCR-W317-0424**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 650950 — **Prep Batch: 650668**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium	50	T5	1000	1110		ug/L		106	70 - 130		

Lab Sample ID: 550-217325-3 MSD — **Client Sample ID: CH-CCR-W317-0424**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 650950 — **Prep Batch: 650668**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	50	T5	1000	1090		ug/L		104	70 - 130	2	20

Lab Sample ID: MB 280-650755/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 651310 — **Prep Batch: 650755**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20		ug/L		04/25/24 09:21	04/26/24 18:03	1

Lab Sample ID: LCS 280-650755/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 651310 — **Prep Batch: 650755**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			1000	1020		ug/L		102	90 - 112		

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

Lab Sample ID: 550-217325-6 MS
Matrix: Water
Analysis Batch: 651835

Client Sample ID: CH-CCR-MW78A-0424
Prep Type: Total Recoverable
Prep Batch: 650755

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	180	T5	1000	1150		ug/L		97	70 - 130

Lab Sample ID: 550-217325-6 MSD
Matrix: Water
Analysis Batch: 651835

Client Sample ID: CH-CCR-MW78A-0424
Prep Type: Total Recoverable
Prep Batch: 650755

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	180	T5	1000	1190		ug/L		101	70 - 130	3	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-319548/1-A
Matrix: Water
Analysis Batch: 319843

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319548

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:34	04/25/24 17:29	1
Arsenic	ND		0.00050		mg/L		04/22/24 09:34	04/25/24 17:29	1
Barium	ND		0.00050		mg/L		04/22/24 09:34	04/25/24 17:29	1
Chromium	ND		0.0010		mg/L		04/22/24 09:34	04/25/24 17:29	1
Cobalt	ND		0.00050		mg/L		04/22/24 09:34	04/25/24 17:29	1
Lead	ND		0.00050		mg/L		04/22/24 09:34	04/25/24 17:29	1
Molybdenum	ND		0.00050		mg/L		04/22/24 09:34	04/25/24 17:29	1
Thallium	ND		0.00010		mg/L		04/22/24 09:34	04/25/24 17:29	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:34	04/25/24 17:29	1

Lab Sample ID: MB 550-319548/1-A
Matrix: Water
Analysis Batch: 319993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319548

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050		mg/L		04/22/24 09:34	04/29/24 17:40	1
Selenium	ND		0.00050		mg/L		04/22/24 09:34	04/29/24 17:40	1
Thallium	ND		0.00010		mg/L		04/22/24 09:34	04/29/24 17:40	1

Lab Sample ID: LCS 550-319548/2-A
Matrix: Water
Analysis Batch: 319843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.0985		mg/L		98	85 - 115
Arsenic	0.100	0.0971		mg/L		97	85 - 115
Barium	0.100	0.106		mg/L		106	85 - 115
Chromium	0.100	0.102		mg/L		102	85 - 115
Cobalt	0.100	0.103		mg/L		103	85 - 115
Lead	0.100	0.0962		mg/L		96	85 - 115
Molybdenum	0.100	0.102		mg/L		102	85 - 115
Thallium	0.100	0.0992		mg/L		99	85 - 115
Cadmium	0.100	0.0973		mg/L		97	85 - 115

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

Lab Sample ID: LCS 550-319548/2-A
Matrix: Water
Analysis Batch: 319993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319548

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead			0.100	0.108		mg/L		108	85 - 115		
Selenium			0.100	0.0968		mg/L		97	85 - 115		
Thallium			0.100	0.108		mg/L		108	85 - 115		

Lab Sample ID: LCSD 550-319548/3-A
Matrix: Water
Analysis Batch: 319843

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319548

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.0982		mg/L		98	85 - 115	0	20
Arsenic			0.100	0.0975		mg/L		98	85 - 115	0	20
Barium			0.100	0.107		mg/L		107	85 - 115	0	20
Chromium			0.100	0.103		mg/L		103	85 - 115	1	20
Cobalt			0.100	0.104		mg/L		104	85 - 115	1	20
Lead			0.100	0.0980		mg/L		98	85 - 115	2	20
Molybdenum			0.100	0.102		mg/L		102	85 - 115	0	20
Thallium			0.100	0.0998		mg/L		100	85 - 115	1	20
Cadmium			0.100	0.0962		mg/L		96	85 - 115	1	20

Lab Sample ID: LCSD 550-319548/3-A
Matrix: Water
Analysis Batch: 319993

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319548

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead			0.100	0.108		mg/L		108	85 - 115	0	20
Selenium			0.100	0.0956		mg/L		96	85 - 115	1	20
Thallium			0.100	0.109		mg/L		109	85 - 115	1	20

Lab Sample ID: 550-217325-3 MS
Matrix: Water
Analysis Batch: 319843

Client Sample ID: CH-CCR-W317-0424
Prep Type: Total/NA
Prep Batch: 319548

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND		0.100	0.101		mg/L		101	70 - 130		
Arsenic	0.0055		0.100	0.107		mg/L		101	70 - 130		
Barium	0.036	M1	0.100	0.149		mg/L		113	70 - 130		
Cadmium	ND		0.100	0.0908		mg/L		91	70 - 130		
Chromium	0.0033		0.100	0.104		mg/L		101	70 - 130		
Cobalt	ND		0.100	0.0987		mg/L		98	70 - 130		
Lead	ND		0.100	0.0891		mg/L		89	70 - 130		
Molybdenum	0.0019	T5	0.100	0.110		mg/L		108	70 - 130		
Thallium	ND		0.100	0.0918		mg/L		92	70 - 130		

Lab Sample ID: 550-217325-3 MS
Matrix: Water
Analysis Batch: 319993

Client Sample ID: CH-CCR-W317-0424
Prep Type: Total/NA
Prep Batch: 319548

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Selenium	0.00075		0.100	0.106		mg/L		105	70 - 130		

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

Lab Sample ID: 550-217325-3 MSD — **Client Sample ID: CH-CCR-W317-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319843 — **Prep Batch: 319548**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.102		mg/L		102	70 - 130	1	20
Arsenic	0.0055		0.100	0.107		mg/L		102	70 - 130	0	20
Barium	0.036	M1	0.100	0.173	M1	mg/L		138	70 - 130	15	20
Cadmium	ND		0.100	0.0926		mg/L		93	70 - 130	2	20
Chromium	0.0033		0.100	0.107		mg/L		103	70 - 130	3	20
Cobalt	ND		0.100	0.100		mg/L		100	70 - 130	1	20
Lead	ND		0.100	0.0934		mg/L		93	70 - 130	5	20
Molybdenum	0.0019	T5	0.100	0.112		mg/L		110	70 - 130	1	20
Thallium	ND		0.100	0.0928		mg/L		93	70 - 130	1	20

Lab Sample ID: 550-217325-3 MSD — **Client Sample ID: CH-CCR-W317-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319993 — **Prep Batch: 319548**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium	0.00075		0.100	0.106		mg/L		105	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-319692/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319722 — **Prep Batch: 319692**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 15:53	1

Lab Sample ID: LCS 550-319692/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319722 — **Prep Batch: 319692**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00455		mg/L		91	85 - 115		

Lab Sample ID: LCSD 550-319692/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319722 — **Prep Batch: 319692**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00458		mg/L		92	85 - 115	1	20

Lab Sample ID: 550-217325-3 MS — **Client Sample ID: CH-CCR-W317-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319722 — **Prep Batch: 319692**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00573		mg/L		115	70 - 130		

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 550-217325-3 MSD — **Client Sample ID: CH-CCR-W317-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319722 — **Prep Batch: 319692**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00527		mg/L		105	70 - 130	8	20

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-319889/153 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319889

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			04/25/24 15:39	1

Lab Sample ID: LCS 550-319889/154 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319889

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.994		mg/L		99	90 - 110		

Lab Sample ID: LCSD 550-319889/155 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319889

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.973		mg/L		97	90 - 110	2	20

Lab Sample ID: 550-217155-D-3 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.77	M1	1.00	1.88	M1	mg/L		111	90 - 110		

Lab Sample ID: 550-217155-D-3 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319889

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.77	M1	1.00	1.87		mg/L		110	90 - 110	1	20

Lab Sample ID: 550-217194-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 319889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	9.1	M1 D2	10.0	20.7	D2 M1	mg/L		116	90 - 110		

Method: 350.1 - Nitrogen, Ammonia (Low Level) (Continued)

Lab Sample ID: 550-217194-B-1 MSD
Matrix: Water
Analysis Batch: 319889

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	9.1	M1 D2	10.0	18.8	D2	mg/L		97	90 - 110	10	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-651585/57
Matrix: Water
Analysis Batch: 651585

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			04/30/24 14:58	1

Lab Sample ID: LCS 280-651585/55
Matrix: Water
Analysis Batch: 651585

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			1.00	0.964		mg/L		96	90 - 110		

Lab Sample ID: LCSD 280-651585/56
Matrix: Water
Analysis Batch: 651585

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			1.00	0.976		mg/L		98	90 - 110	1	10

Lab Sample ID: 550-217326-C-19 MS
Matrix: Water
Analysis Batch: 651585

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	0.10		2.00	2.12		mg/L		101	90 - 110		

Lab Sample ID: 550-217326-C-19 MSD
Matrix: Water
Analysis Batch: 651585

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10		2.00	2.11		mg/L		101	90 - 110	0	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-319790/4
Matrix: Water
Analysis Batch: 319790

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			04/25/24 09:16	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			04/25/24 09:16	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			04/25/24 09:16	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			04/25/24 09:16	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 550-319790/4
Matrix: Water
Analysis Batch: 319790

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			04/25/24 09:16	1

Lab Sample ID: LCS 550-319790/3
Matrix: Water
Analysis Batch: 319790

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	245		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-319790/16
Matrix: Water
Analysis Batch: 319790

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	244		mg/L		98	90 - 110	0	20

Lab Sample ID: 550-217325-1 DU
Matrix: Water
Analysis Batch: 319790

Client Sample ID: CH-CCR-W302-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	140			141		mg/L				0.8	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	140			141		mg/L				0.8	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Lab Sample ID: MB 550-320078/4
Matrix: Water
Analysis Batch: 320078

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			04/30/24 13:13	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1

Lab Sample ID: LCS 550-320078/3
Matrix: Water
Analysis Batch: 320078

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	242		mg/L		97	90 - 110		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-320078/17
Matrix: Water
Analysis Batch: 320078

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	238		mg/L		95	90 - 110	2	20

Lab Sample ID: 550-217060-I-1 DU
Matrix: Water
Analysis Batch: 320078

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	470			465		mg/L				0.1	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	470			465		mg/L				0.1	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

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

Lab Sample ID: MB 550-319720/1
Matrix: Water
Analysis Batch: 319720

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			04/24/24 16:37	1

Lab Sample ID: LCS 550-319720/2
Matrix: Water
Analysis Batch: 319720

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	974		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-319720/3
Matrix: Water
Analysis Batch: 319720

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1000		mg/L		100	90 - 110	NaN	10

Lab Sample ID: 550-217325-3 DU
Matrix: Water
Analysis Batch: 319720

Client Sample ID: CH-CCR-W317-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	3600			4000	R8	mg/L				12	10

Lab Sample ID: MB 550-319784/1
Matrix: Water
Analysis Batch: 319784

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			04/25/24 14:13	1

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

Lab Sample ID: LCS 550-319784/2
Matrix: Water
Analysis Batch: 319784

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	970		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-319784/3
Matrix: Water
Analysis Batch: 319784

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	988		mg/L		99	90 - 110	2	10

Lab Sample ID: 550-217212-K-2 DU
Matrix: Water
Analysis Batch: 319784

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	900			850		mg/L				6	10

Lab Sample ID: MB 550-319789/1
Matrix: Water
Analysis Batch: 319789

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			04/25/24 14:39	1

Lab Sample ID: LCS 550-319789/2
Matrix: Water
Analysis Batch: 319789

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	970		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-319789/3
Matrix: Water
Analysis Batch: 319789

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	986		mg/L		99	90 - 110	2	10

Lab Sample ID: 550-217328-D-3 DU
Matrix: Water
Analysis Batch: 319789

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2800			2880		mg/L				1	10

Lab Sample ID: MB 550-319877/1
Matrix: Water
Analysis Batch: 319877

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			04/26/24 15:30	1

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

Lab Sample ID: LCS 550-319877/2
Matrix: Water
Analysis Batch: 319877

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	982		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-319877/3
Matrix: Water
Analysis Batch: 319877

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	974		mg/L		97	90 - 110	1	10

Lab Sample ID: 550-217441-A-1 DU
Matrix: Water
Analysis Batch: 319877

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	12000			12600		mg/L				5	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-320047/1
Matrix: Water
Analysis Batch: 320047

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.6	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-320047/13
Matrix: Water
Analysis Batch: 320047

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.9	98.5 - 101.5		

Lab Sample ID: 550-217325-6 DU
Matrix: Water
Analysis Batch: 320047

Client Sample ID: CH-CCR-MW78A-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.3	H5		7.4		SU				0.3	5
Temperature	12.0	H5 T5		12.1		Degrees C				0.8	

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 550-319849/6
Matrix: Water
Analysis Batch: 319849

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			04/25/24 17:04	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			04/25/24 17:04	1

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: MB 550-319849/6
Matrix: Water
Analysis Batch: 319849

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			04/25/24 17:04	1

HPLC/IC

Analysis Batch: 319563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	300.0	
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	300.0	
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	300.0	
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	300.0	
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	300.0	
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	300.0	
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	300.0	
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	300.0	
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	300.0	
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	300.0	
MB 550-319563/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319563/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319563/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217325-3 MS	CH-CCR-W317-0424	Total/NA	Water	300.0	
550-217325-3 MSD	CH-CCR-W317-0424	Total/NA	Water	300.0	

Analysis Batch: 319630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	300.0	
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	300.0	
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	300.0	
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	300.0	
MB 550-319630/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319630/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319630/6	Lab Control Sample Dup	Total/NA	Water	300.0	

Analysis Batch: 319716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	300.0	
MB 550-319716/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319716/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319716/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217307-A-1 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-217307-A-1 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 319548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	200.8	
550-217325-2	CH-CCR-W302-0424	Dissolved	Water	200.8	
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	200.8	
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	200.8	
550-217325-5	CH-CCR-MW77A-0424	Dissolved	Water	200.8	
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	200.8	
550-217325-7	CH-CCR-MW78A-0424	Dissolved	Water	200.8	
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	200.8	
MB 550-319548/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-319548/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-319548/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-217325-3 MS	CH-CCR-W317-0424	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 319548 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-3 MSD	CH-CCR-W317-0424	Total/NA	Water	200.8	

Prep Batch: 319662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	200.7	
550-217325-2	CH-CCR-W302-0424	Dissolved	Water	200.7	
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	200.7	
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	200.7	
550-217325-5	CH-CCR-MW77A-0424	Dissolved	Water	200.7	
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	200.7	
550-217325-7	CH-CCR-MW78A-0424	Dissolved	Water	200.7	
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	200.7	
MB 550-319662/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-319662/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-319662/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217325-3 MS	CH-CCR-W317-0424	Total/NA	Water	200.7	
550-217325-3 MSD	CH-CCR-W317-0424	Total/NA	Water	200.7	

Prep Batch: 319692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	245.1	
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	245.1	
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	245.1	
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	245.1	
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	245.1	
MB 550-319692/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-319692/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-319692/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-217325-3 MS	CH-CCR-W317-0424	Total/NA	Water	245.1	
550-217325-3 MSD	CH-CCR-W317-0424	Total/NA	Water	245.1	

Analysis Batch: 319722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	245.1	319692
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	245.1	319692
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	245.1	319692
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	245.1	319692
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	245.1	319692
MB 550-319692/1-A	Method Blank	Total/NA	Water	245.1	319692
LCS 550-319692/2-A	Lab Control Sample	Total/NA	Water	245.1	319692
LCSD 550-319692/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	319692
550-217325-3 MS	CH-CCR-W317-0424	Total/NA	Water	245.1	319692
550-217325-3 MSD	CH-CCR-W317-0424	Total/NA	Water	245.1	319692

Analysis Batch: 319843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	200.8 LL	319548
550-217325-2	CH-CCR-W302-0424	Dissolved	Water	200.8 LL	319548
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	200.8 LL	319548
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	200.8 LL	319548
550-217325-5	CH-CCR-MW77A-0424	Dissolved	Water	200.8 LL	319548

Metals (Continued)

Analysis Batch: 319843 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	200.8 LL	319548
550-217325-7	CH-CCR-MW78A-0424	Dissolved	Water	200.8 LL	319548
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	200.8 LL	319548
MB 550-319548/1-A	Method Blank	Total/NA	Water	200.8 LL	319548
LCS 550-319548/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	319548
LCSD 550-319548/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	319548
550-217325-3 MS	CH-CCR-W317-0424	Total/NA	Water	200.8 LL	319548
550-217325-3 MSD	CH-CCR-W317-0424	Total/NA	Water	200.8 LL	319548

Analysis Batch: 319899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	200.7 Rev 4.4	319662
550-217325-2	CH-CCR-W302-0424	Dissolved	Water	200.7	319662
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	200.7 Rev 4.4	319662
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	200.7 Rev 4.4	319662
550-217325-5	CH-CCR-MW77A-0424	Dissolved	Water	200.7	319662
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	200.7 Rev 4.4	319662
550-217325-7	CH-CCR-MW78A-0424	Dissolved	Water	200.7	319662
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	200.7 Rev 4.4	319662
MB 550-319662/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319662
LCS 550-319662/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319662
LCSD 550-319662/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319662
550-217325-3 MS	CH-CCR-W317-0424	Total/NA	Water	200.7 Rev 4.4	319662
550-217325-3 MSD	CH-CCR-W317-0424	Total/NA	Water	200.7 Rev 4.4	319662

Analysis Batch: 319966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-319662/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319662
LCS 550-319662/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319662
LCSD 550-319662/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319662

Analysis Batch: 319993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	200.8 LL	319548
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	200.8 LL	319548
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	200.8 LL	319548
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	200.8 LL	319548
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	200.8 LL	319548
MB 550-319548/1-A	Method Blank	Total/NA	Water	200.8 LL	319548
LCS 550-319548/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	319548
LCSD 550-319548/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	319548
550-217325-3 MS	CH-CCR-W317-0424	Total/NA	Water	200.8 LL	319548
550-217325-3 MSD	CH-CCR-W317-0424	Total/NA	Water	200.8 LL	319548

Analysis Batch: 320080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	200.7 Rev 4.4	319662
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	200.7 Rev 4.4	319662
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	200.7 Rev 4.4	319662
MB 550-319662/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319662
LCS 550-319662/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319662

Metals (Continued)

Analysis Batch: 320080 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 550-319662/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319662

Prep Batch: 650668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total Recoverable	Water	200.7	
550-217325-3	CH-CCR-W317-0424	Total Recoverable	Water	200.7	
550-217325-4	CH-CCR-MW77A-0424	Total Recoverable	Water	200.7	
MB 280-650668/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-650668/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
550-217325-3 MS	CH-CCR-W317-0424	Total Recoverable	Water	200.7	
550-217325-3 MSD	CH-CCR-W317-0424	Total Recoverable	Water	200.7	

Prep Batch: 650755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-6	CH-CCR-MW78A-0424	Total Recoverable	Water	200.7	
550-217325-8	CH-CCR-FD04-0424	Total Recoverable	Water	200.7	
MB 280-650755/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-650755/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
550-217325-6 MS	CH-CCR-MW78A-0424	Total Recoverable	Water	200.7	
550-217325-6 MSD	CH-CCR-MW78A-0424	Total Recoverable	Water	200.7	

Analysis Batch: 650950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total Recoverable	Water	200.7 Rev 4.4	650668
550-217325-3	CH-CCR-W317-0424	Total Recoverable	Water	200.7 Rev 4.4	650668
550-217325-4	CH-CCR-MW77A-0424	Total Recoverable	Water	200.7 Rev 4.4	650668
MB 280-650668/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	650668
LCS 280-650668/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	650668
550-217325-3 MS	CH-CCR-W317-0424	Total Recoverable	Water	200.7 Rev 4.4	650668
550-217325-3 MSD	CH-CCR-W317-0424	Total Recoverable	Water	200.7 Rev 4.4	650668

Analysis Batch: 651310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-8	CH-CCR-FD04-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
MB 280-650755/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	650755
LCS 280-650755/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	650755

Analysis Batch: 651835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-6	CH-CCR-MW78A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217325-6 MS	CH-CCR-MW78A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217325-6 MSD	CH-CCR-MW78A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755

General Chemistry

Analysis Batch: 319720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	SM 2540C	
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	SM 2540C	
MB 550-319720/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-319720/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 319720 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 550-319720/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217325-3 DU	CH-CCR-W317-0424	Total/NA	Water	SM 2540C	

Analysis Batch: 319784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	SM 2540C	
MB 550-319784/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-319784/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-319784/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217212-K-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 319789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	SM 2540C	
MB 550-319789/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-319789/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-319789/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217328-D-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 319790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	SM 2320B	
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	SM 2320B	
MB 550-319790/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-319790/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-319790/16	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217325-1 DU	CH-CCR-W302-0424	Total/NA	Water	SM 2320B	

Analysis Batch: 319849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-2	CH-CCR-W302-0424	Dissolved	Water	SM 5310B	
550-217325-5	CH-CCR-MW77A-0424	Dissolved	Water	SM 5310B	
550-217325-7	CH-CCR-MW78A-0424	Dissolved	Water	SM 5310B	
MB 550-319849/6	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-319849/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-319849/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-217325-2 MS	CH-CCR-W302-0424	Dissolved	Water	SM 5310B	
550-217325-2 MSD	CH-CCR-W302-0424	Dissolved	Water	SM 5310B	

Analysis Batch: 319877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	SM 2540C	
MB 550-319877/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-319877/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-319877/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217441-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 319889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	350.1	
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 319889 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	350.1	
MB 550-319889/153	Method Blank	Total/NA	Water	350.1	
LCS 550-319889/154	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-319889/155	Lab Control Sample Dup	Total/NA	Water	350.1	
550-217155-D-3 MS	Matrix Spike	Total/NA	Water	350.1	
550-217155-D-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
550-217194-B-1 MS	Matrix Spike	Total/NA	Water	350.1	
550-217194-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 320047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	SM 4500 H+ B	
550-217325-3	CH-CCR-W317-0424	Total/NA	Water	SM 4500 H+ B	
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	SM 4500 H+ B	
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	SM 4500 H+ B	
550-217325-8	CH-CCR-FD04-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320047/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320047/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-217325-6 DU	CH-CCR-MW78A-0424	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 320078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	SM 2320B	
MB 550-320078/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320078/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320078/17	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217060-I-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 651585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217325-1	CH-CCR-W302-0424	Total/NA	Water	353.2	
550-217325-4	CH-CCR-MW77A-0424	Total/NA	Water	353.2	
550-217325-6	CH-CCR-MW78A-0424	Total/NA	Water	353.2	
MB 280-651585/57	Method Blank	Total/NA	Water	353.2	
LCS 280-651585/55	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-651585/56	Lab Control Sample Dup	Total/NA	Water	353.2	
550-217326-C-19 MS	Matrix Spike	Total/NA	Water	353.2	
550-217326-C-19 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Lab Chronicle

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

Job ID: 550-217325-1
SDG: APS Cholla Power Plank (BAP)

Client Sample ID: CH-CCR-W302-0424

Lab Sample ID: 550-217325-1

Date Collected: 04/19/24 09:05
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		100	319630	MMH	EET PHX	04/23/24 16:09
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 15:07
Total/NA	Analysis	300.0		20	319563	MMH	EET PHX	04/22/24 15:26
Total Recoverable	Prep	200.7			650668	JTC	EET DEN	04/24/24 08:35
Total Recoverable	Analysis	200.7 Rev 4.4		1	650950	NKC	EET DEN	04/25/24 05:16
Total/NA	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Total/NA	Analysis	200.7 Rev 4.4		1	319899	GLW	EET PHX	04/26/24 22:32
Total/NA	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:05
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Total/NA	Analysis	200.8 LL		1	319843	DSJ	EET PHX	04/25/24 17:45
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Total/NA	Analysis	200.8 LL		1	319993	DSJ	EET PHX	04/29/24 17:54
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:24
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 15:50
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:40
Total/NA	Analysis	SM 2320B		1	319790	ELN	EET PHX	04/25/24 12:35
Total/NA	Analysis	SM 2540C		1	319877	RGG	EET PHX	04/26/24 15:30 - 05/01/24 13:06 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:07

Client Sample ID: CH-CCR-W302-0424

Lab Sample ID: 550-217325-2

Date Collected: 04/19/24 09:05
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Dissolved	Analysis	200.7		1	319899	GLW	EET PHX	04/26/24 22:35
Dissolved	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Dissolved	Analysis	200.8 LL		1	319843	DSJ	EET PHX	04/25/24 17:47
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 17:48

Client Sample ID: CH-CCR-W317-0424

Lab Sample ID: 550-217325-3

Date Collected: 04/17/24 09:58
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		100	319630	MMH	EET PHX	04/23/24 14:54
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 13:54
Total/NA	Analysis	300.0		10	319563	MMH	EET PHX	04/22/24 14:49
Total Recoverable	Prep	200.7			650668	JTC	EET DEN	04/24/24 08:35
Total Recoverable	Analysis	200.7 Rev 4.4		1	650950	NKC	EET DEN	04/25/24 05:21
Total/NA	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Total/NA	Analysis	200.7 Rev 4.4		1	319899	GLW	EET PHX	04/26/24 22:28

Client Sample ID: CH-CCR-W317-0424

Lab Sample ID: 550-217325-3

Date Collected: 04/17/24 09:58
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Total/NA	Analysis	200.8 LL		1	319843	DSJ	EET PHX	04/25/24 17:43
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Total/NA	Analysis	200.8 LL		1	319993	DSJ	EET PHX	04/29/24 17:52
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:21
Total/NA	Analysis	SM 2540C		1	319720	GRW	EET PHX	04/24/24 16:37 - 04/29/24 03:30 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:08

Client Sample ID: CH-CCR-MW77A-0424

Lab Sample ID: 550-217325-4

Date Collected: 04/18/24 11:24
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 15:44
Total/NA	Analysis	300.0		50	319563	MMH	EET PHX	04/22/24 16:03
Total Recoverable	Prep	200.7			650668	JTC	EET DEN	04/24/24 08:35
Total Recoverable	Analysis	200.7 Rev 4.4		1	650950	NKC	EET DEN	04/25/24 05:34
Total/NA	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Total/NA	Analysis	200.7 Rev 4.4		1	319899	GLW	EET PHX	04/26/24 22:38
Total/NA	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:09
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Total/NA	Analysis	200.8 LL		1	319843	DSJ	EET PHX	04/25/24 17:49
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Total/NA	Analysis	200.8 LL		5	319993	DSJ	EET PHX	04/29/24 17:46
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:28
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 15:51
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:42
Total/NA	Analysis	SM 2320B		1	319790	ELN	EET PHX	04/25/24 12:48
Total/NA	Analysis	SM 2540C		1	319784	GRW	EET PHX	04/25/24 14:13 - 04/30/24 16:54 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:09

Client Sample ID: CH-CCR-MW77A-0424

Lab Sample ID: 550-217325-5

Date Collected: 04/18/24 11:24
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Dissolved	Analysis	200.7		1	319899	GLW	EET PHX	04/26/24 22:42
Dissolved	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Dissolved	Analysis	200.8 LL		1	319843	DSJ	EET PHX	04/25/24 17:51
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 18:27

Client Sample ID: CH-CCR-MW78A-0424

Lab Sample ID: 550-217325-6

Date Collected: 04/19/24 10:12
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 16:21
Total/NA	Analysis	300.0		50	319563	MMH	EET PHX	04/22/24 16:39
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		5	651835	ADL	EET DEN	05/01/24 16:26
Total/NA	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Total/NA	Analysis	200.7 Rev 4.4		1	319899	GLW	EET PHX	04/26/24 22:45
Total/NA	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:12
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Total/NA	Analysis	200.8 LL		1	319843	DSJ	EET PHX	04/25/24 17:53
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Total/NA	Analysis	200.8 LL		1	319993	DSJ	EET PHX	04/29/24 17:56
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:30
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 15:53
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:44
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 13:48
Total/NA	Analysis	SM 2540C		1	319789	GRW	EET PHX	04/25/24 14:39 - 04/30/24 10:24 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:12

Client Sample ID: CH-CCR-MW78A-0424

Lab Sample ID: 550-217325-7

Date Collected: 04/19/24 10:12
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Dissolved	Analysis	200.7		1	319899	GLW	EET PHX	04/26/24 22:49
Dissolved	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:34
Dissolved	Analysis	200.8 LL		1	319843	DSJ	EET PHX	04/25/24 17:55
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 18:42

Client Sample ID: CH-CCR-FD04-0424

Lab Sample ID: 550-217325-8

Date Collected: 04/17/24 16:20
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		100	319630	MMH	EET PHX	04/23/24 16:34
Total/NA	Analysis	300.0		100	319630	MMH	EET PHX	04/23/24 17:24
Total/NA	Analysis	300.0		100	319716	MMH	EET PHX	04/24/24 20:38
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 18:14
Total/NA	Analysis	300.0		10	319563	MMH	EET PHX	04/22/24 18:32
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		1	651310	ADL	EET DEN	04/26/24 18:11

Lab Chronicle

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

Job ID: 550-217325-1
SDG: APS Cholla Power Plank (BAP)

Client Sample ID: CH-CCR-FD04-0424

Date Collected: 04/17/24 16:20
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217325-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319662	SGO	EET PHX	04/24/24 07:43
Total/NA	Analysis	200.7 Rev 4.4		1	319899	GLW	EET PHX	04/26/24 22:52
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:42
Total/NA	Analysis	200.8 LL		1	319843	DSJ	EET PHX	04/25/24 17:57
Total/NA	Prep	200.8			319548	SGO	EET PHX	04/22/24 09:42
Total/NA	Analysis	200.8 LL		1	319993	DSJ	EET PHX	04/29/24 17:58
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:32
Total/NA	Analysis	SM 2540C		1	319720	GRW	EET PHX	04/24/24 16:37 - 04/29/24 03:30 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:14

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

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

Job ID: 550-217325-1
SDG: APS Cholla Power Plank (BAP)

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8 LL	200.8	Water	Molybdenum
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Lithium

Method Summary

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

Job ID: 550-217325-1
SDG: APS Cholla Power Plank (BAP)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7	Dissolved Metals by ICP	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

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

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

TestAmerica Laboratories, Inc.

5/2/2024

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Robert	Carrier:	___1___ of ___1___ COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-W302-0424 01 +02	04/19/24	905	G	W	10	Y		X	X			X	X	X	X	X	X	X	X	X	X	X	Low Flow
CH-CCR-W317-0424 - 03	04/17/24	958	G	W	3	N	Y	X			X	X		X		X	X	X					Low Flow, MS/MSD
CH-CCR-MW77A-0424 04 +05	04/18/24	1124	G	W	10	Y		X	X			X	X	X	X	X	X	X	X	X	X	X	Low Flow
CH-CCR-MW78A-0424 06 +07	04/19/24	1012	G	W	10	Y		X	X			X	X	X	X	X	X	X	X	X	X	X	"
CH-CCR-FD04-0424 08 ~~+09~~	04/17/24	1620	G	W	3	N		X			X	X		X		X	X	X					"
AG 4/19/24																							
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1	



Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: WSP	Date/Time: 4/19/24 1545	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 4/19/24 1545

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

4.4°C/2-0°C/2-8°C/ICE/CBO

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

TestAmerica Laboratories, Inc.

Client Contact	**Natalie Chrisman**	**Pam Norris (505) 598-8781**	**Date:**	COC No:
Arizona Public Service	**(602) 250-3608**	**Lab Contact: Danielle Roberts**	**Carrier:**	___1___ of ___1___ COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)		Sample Specific Notes:
CH-CCR-W302-0424	04/19/24	9:05	G	W	5	Y	N						X		X				X					
CH-CCR-W302-0424	04/19/24	9:05	G	W	5	N	N	X	X			X		X		X	X	X		X	X	X		Low Flow
CH-CCR-W317-0424	04/18/23	9:58	G	W	3	N	Y	X			X	X		X		X	X	X						Low Flow, MS/MSD
CH-CCR-MW77A-0424	04/18/24	11:24	G	W	5	Y	N						X		X				X					Low Flow
CH-CCR-MW77A-0424	04/18/24	11:24	G	W	5	N	N	X	X			X		X		X	X	X		X	X	X		"
CH-CCR-MW78A-0424	04/19/24	10:12	G	W	5	Y	N						X		X				X					"
CH-CCR-MW78A-0424	04/19/24	10:12	G	W	5	N	N	X	X			X		X		X	X	X		X	X	X		"
CH-CCR-FD04-0424	04/17/24	16:20	G	W	3	N	N	X			X	X		X		X	X	X						"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								**1**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**1**	**1**	**2**	**3**	**3**	**1**		

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; *As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:				
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM. Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39383.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 1
Company. TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217325-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 5/2/2024			Preservation Codes: -
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-CCR-W302-0424 (550-217325-1)	4/19/24	09:05 Arizona		Water			X	X	2	
CH-CCR-W317-0424 (550-217325-3)	4/17/24	09:58 Arizona		Water			X		2	
CH-CCR-W317-0424 (550-217325-3MS)	4/17/24	09:58 Arizona	MS	Water			X		2	
CH-CCR-W317-0424 (550-217325-3MSD)	4/17/24	09:58 Arizona	MSD	Water			X		2	
CH-CCR-MW77A-0424 (550-217325-4)	4/18/24	11:24 Arizona		Water			X	X	2	
CH-CCR-MW78A-0424 (550-217325-6)	4/19/24	10:12 Arizona		Water			X	X	2	
CH-CCR-FD04-0424 (550-217325-8)	4/17/24	16:20 Arizona		Water			X		1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Eve 04-22-24	Date/Time: 14:25	Company EETSW	Received by: Fedex	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by: [signature]	Date/Time: 4/23/24 0910	Company EETD
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.0 #14 (FO.)		

Ver: 06/08/2021

5/2/2024

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217325-1
SDG Number: APS Cholla Power Plank (BAP)

Login Number: 217325
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217325-1
SDG Number: APS Cholla Power Plank (BAP)

Login Number: 217325
List Number: 2
Creator: Naylis, Patrick J

List Source: Eurofins Denver
List Creation: 04/23/24 12:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 5/28/2024 12:39:45 PM

JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-217592-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

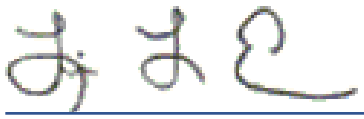
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Authorized for release by
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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Definitions/Glossary

Client: Arizona Public Service Company
Job ID: 550-217592-1
Project/Site: CCR Groundwater Monitoring

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Metals

Qualifier	Qualifier Description
L4	The associated blank spike recovery was below method acceptance limits.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
R4	MS/MSD RPD exceeded the method control limit. Recovery met acceptance criteria.
T5	Laboratory not licensed for this parameter

General Chemistry

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
H1	Sample analysis performed past holding time.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-217592-1 Eurofins Phoenix

Job Narrative
550-217592-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/26/2024 10:48 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6°C, 2.6°C and 3.2°C.

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

Metals
Method 200.7 - Total Recoverable: The following samples were diluted due to the nature of the sample matrix: (280-190528-A-15-D ^5), (280-190528-A-15-E MS ^5), (280-190528-A-15-F MSD ^5), (280-190528-A-15-D PDS ^5) and (280-190528-A-15-D SD ^25). Elevated reporting limits (RLs) are provided.

Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-319916 and analytical batch 550-320293 was outside acceptance criteria for the analytes Barium and Lead. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. CH-CCR-M52A-0424 (550-217592-2), CH-CCR-M53A-0424 (550-217592-4), CH-CCR-M55A-0424 (550-217592-6), CH-CCR-MW69A-0424 (550-217592-8), CH-CCR-MW70M-0424 (550-217592-10), CH-CCR-MW73A-0424 (550-217592-12) and CH-CCR-MW74M-0424 (550-217592-14)

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

General Chemistry
Method 2540C_Calcd: The sample duplicate (DUP) precision for analytical batch 550-320055 was outside control limits. Sample non-homogeneity is suspected.

Method 2540C_Calcd: The following sample(s) was analyzed outside of analytical holding time due sample being received out of hold time. CH-CCR-M55A-0424 (550-217592-6), CH-CCR-W304-0424 (550-217592-20), CH-CCR-W306-0424 (550-217592-22), CH-CCR-W307R-0424 (550-217592-24), CH-CCR-W308-0424 (550-217592-26), CH-CCR-W309-0424 (550-217592-28), CH-CCR-FD03-0424 (550-217592-30), (550-217577-A-26), (550-217577-A-26 DU) and (550-217592-A-20 DU).

Method SM5310_DOC_B - Dissolved: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(CCB 550-320204/21) and (MB 550-320204/6)

Method SM5310_DOC_B - Dissolved: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(CCB 550-320448/22), (CCB 550-320448/4) and (MB 550-320448/6)

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

Sample Summary

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

Job ID: 550-217592-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217592-1	CH-CCR-M52A-0424	Water	04/23/24 16:29	04/26/24 10:48
550-217592-2	CH-CCR-M52A-0424	Water	04/23/24 16:29	04/26/24 10:48
550-217592-3	CH-CCR-M53A-0424	Water	04/23/24 13:04	04/26/24 10:48
550-217592-4	CH-CCR-M53A-0424	Water	04/23/24 13:04	04/26/24 10:48
550-217592-5	CH-CCR-M55A-0424	Water	04/22/24 10:49	04/26/24 10:48
550-217592-6	CH-CCR-M55A-0424	Water	04/22/24 10:49	04/26/24 10:48
550-217592-7	CH-CCR-MW69A-0424	Water	04/25/24 09:58	04/26/24 10:48
550-217592-8	CH-CCR-MW69A-0424	Water	04/25/24 09:58	04/26/24 10:48
550-217592-9	CH-CCR-MW70M-0424	Water	04/25/24 11:27	04/26/24 10:48
550-217592-10	CH-CCR-MW70M-0424	Water	04/25/24 11:27	04/26/24 10:48
550-217592-11	CH-CCR-MW73A-0424	Water	04/24/24 15:27	04/26/24 10:48
550-217592-12	CH-CCR-MW73A-0424	Water	04/24/24 15:27	04/26/24 10:48
550-217592-13	CH-CCR-MW74M-0424	Water	04/24/24 12:04	04/26/24 10:48
550-217592-14	CH-CCR-MW74M-0424	Water	04/24/24 12:04	04/26/24 10:48
550-217592-15	CH-CCR-W301-0424	Water	04/23/24 09:52	04/26/24 10:48
550-217592-16	CH-CCR-W301-0424	Water	04/23/24 09:52	04/26/24 10:48
550-217592-17	CH-CCR-W303-0424	Water	04/23/24 11:16	04/26/24 10:48
550-217592-18	CH-CCR-W303-0424	Water	04/23/24 11:16	04/26/24 10:48
550-217592-19	CH-CCR-W304-0424	Water	04/22/24 16:34	04/26/24 10:48
550-217592-20	CH-CCR-W304-0424	Water	04/22/24 16:34	04/26/24 10:48
550-217592-21	CH-CCR-W306-0424	Water	04/23/24 14:02	04/26/24 10:48
550-217592-22	CH-CCR-W306-0424	Water	04/23/24 14:02	04/26/24 10:48
550-217592-23	CH-CCR-W307R-0424	Water	04/22/24 14:46	04/26/24 10:48
550-217592-24	CH-CCR-W307R-0424	Water	04/22/24 14:46	04/26/24 10:48
550-217592-25	CH-CCR-W308-0424	Water	04/22/24 13:35	04/26/24 10:48
550-217592-26	CH-CCR-W308-0424	Water	04/22/24 13:35	04/26/24 10:48
550-217592-27	CH-CCR-W309-0424	Water	04/22/24 09:49	04/26/24 10:48
550-217592-28	CH-CCR-W309-0424	Water	04/22/24 09:49	04/26/24 10:48
550-217592-29	CH-CCR-FD03-0424	Water	04/22/24 16:20	04/26/24 10:48
550-217592-30	CH-CCR-FD03-0424	Water	04/22/24 16:20	04/26/24 10:48

Detection Summary

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

Job ID: 550-217592-1

Client Sample ID: CH-CCR-M52A-0424 — Lab Sample ID: 550-217592-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	8.7		0.10		mg/L	1		200.7	Dissolved
Manganese	2.3		0.010		mg/L	1		200.7	Dissolved
Arsenic	1.9		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	39		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.8		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M52A-0424 — Lab Sample ID: 550-217592-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3900	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	2900	D2	200		mg/L	100		300.0	Total/NA
Boron	4.8		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	860		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	11		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	370		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.4		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	7.1		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2700		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	210	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0024		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.014	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00064		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.0026		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.039		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.037		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0016		0.00050		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	11000	B1	100		mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	15.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M53A-0424 — Lab Sample ID: 550-217592-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	5.5		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.2		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	7.8		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.3		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M53A-0424 — Lab Sample ID: 550-217592-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	200		mg/L	100		300.0	Total/NA
Boron	4.3		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	690		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	5.4		0.010		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: CH-CCR-M53A-0424 (Continued) — Lab Sample ID: 550-217592-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lithium	210	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0021		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0070	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00058		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.0010		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0076		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.033		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0014		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.24		0.050		mg/L	1		350.1	Total/NA
Total Dissolved Solids	8000	B1	100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	8.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M55A-0424 — Lab Sample ID: 550-217592-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.4		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	3.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	3.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	3.6		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M55A-0424 — Lab Sample ID: 550-217592-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	4500	D2	200		mg/L	100		300.0	Total/NA
Fluoride	0.65		0.40		mg/L	1		300.0	Total/NA
Sulfate	3100	D2	200		mg/L	100		300.0	Total/NA
Boron	0.47		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	800		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.17		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	200		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.8		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3700		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	460	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0026		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.014	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0069		0.0010		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0048		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.17		0.00050		mg/L	1		200.8 LL	Total/NA
Mercury	0.00022		0.00020		mg/L	1		245.1	Total/NA
Nitrate Nitrite as N	0.49		0.10		mg/L	1		353.2	Total/NA
Total Dissolved Solids	11000	B1 H1	100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	8.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW69A-0424 — Lab Sample ID: 550-217592-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.48		0.10		mg/L	1		200.7	Dissolved
Manganese	0.10		0.010		mg/L	1		200.7	Dissolved
Arsenic	1.9		0.50		ug/L	1		200.8 LL	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW69A-0424 (Continued) — Lab Sample ID: 550-217592-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Cobalt	16		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.4		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW69A-0424 — Lab Sample ID: 550-217592-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2400	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.3		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	200		mg/L	100		300.0	Total/NA
Boron	3.8		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	760		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.0		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	220		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.76		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	8.4		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	200	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0021		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.014	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.21		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.016		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.038		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0012		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8200		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.1	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW70M-0424 — Lab Sample ID: 550-217592-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	2.1		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.0		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	17		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.4		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW70M-0424 — Lab Sample ID: 550-217592-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.3		0.40		mg/L	1		300.0	Total/NA
Sulfate	2600	D2	200		mg/L	100		300.0	Total/NA
Boron	2.7		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	690		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	190		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	11		0.50		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW70M-0424 (Continued)

Lab Sample ID: 550-217592-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Sodium	1500		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	190	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0019		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.010	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00038		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.0012		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.016		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.0016	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.038		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0025		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	88		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	88		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7400		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW73A-0424

Lab Sample ID: 550-217592-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.17		0.10		mg/L	1		200.7	Dissolved
Manganese	0.73		0.010		mg/L	1		200.7	Dissolved
Arsenic	1.6		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	13		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.7		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW73A-0424

Lab Sample ID: 550-217592-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2400	D2	200		mg/L	100		300.0	Total/NA
Fluoride	3.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	3000	D2	200		mg/L	100		300.0	Total/NA
Boron	4.1		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	650		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	2.1		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	310		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	20		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2000		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	210	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0037		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.011	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.27		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.015		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.00087	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.092		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0012		0.00050		mg/L	1		200.8 LL	Total/NA
Nitrate Nitrite as N	0.21		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW73A-0424 (Continued)

Lab Sample ID: 550-217592-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8200	B1	100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	9.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW74M-0424

Lab Sample ID: 550-217592-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.19		0.010		mg/L	1		200.7	Dissolved
Arsenic	1.8		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	15		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW74M-0424

Lab Sample ID: 550-217592-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1800	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.2		0.40		mg/L	1		300.0	Total/NA
Sulfate	2200	D2	200		mg/L	100		300.0	Total/NA
Boron	2.5		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	780		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.1		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	170		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.24		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	19		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1600		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	220	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0023		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.014	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00022		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.0037		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.015		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.0010	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.045		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0015		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	82		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	82		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7100	B1	100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W301-0424

Lab Sample ID: 550-217592-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.10		0.10		mg/L	1		200.7	Dissolved
Manganese	1.4		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.1		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	22		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.5		0.50		mg/L	1		SM 5310B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-W301-0424 (Continued)

Lab Sample ID: 550-217592-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dissolved Organic Carbon - Quad	1.5		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W301-0424

Lab Sample ID: 550-217592-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	5700	D2	200		mg/L	100		300.0	Total/NA
Sulfate	3700	D2	200		mg/L	100		300.0	Total/NA
Boron	0.71		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	780		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.15		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	210		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.7		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	19		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	5100		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	570	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0052		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0072	M1	0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00017		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.021		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.024		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.0084		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0058		0.0025		mg/L	5		200.8 LL	Total/NA
Nitrate Nitrite as N	13		0.50		mg/L	5		353.2	Total/NA
Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	15000	B1	200		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W303-0424

Lab Sample ID: 550-217592-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.020		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.0		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	19		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	3.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	3.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	3.0		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W303-0424

Lab Sample ID: 550-217592-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2900	D2	200		mg/L	100		300.0	Total/NA
Fluoride	0.56		0.40		mg/L	1		300.0	Total/NA
Sulfate	3200	D2	200		mg/L	100		300.0	Total/NA
Boron	4.1		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	710	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.21		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	250	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.26		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	15	M1	0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2600	M3 R4	50		mg/L	100		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-W303-0424 (Continued)

Lab Sample ID: 550-217592-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lithium	320	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0022		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0040		0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.028		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.019		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.033		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0015		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	9200	B1	100		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W304-0424

Lab Sample ID: 550-217592-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.44		0.10		mg/L	1		200.7	Dissolved
Manganese	3.7		0.010		mg/L	1		200.7	Dissolved
Arsenic	1.7		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	11		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W304-0424

Lab Sample ID: 550-217592-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2400	D2	200		mg/L	100		300.0	Total/NA
Sulfate	2300	D2	200		mg/L	100		300.0	Total/NA
Boron	0.49		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	840		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.49		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	140		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	3.8		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	11		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2200		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	400	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0016		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0093		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00010		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.0061		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.011		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0067		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0012		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8100	B1 H1	100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 550-217592-1

Client Sample ID: CH-CCR-W306-0424 — Lab Sample ID: 550-217592-21

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.17		0.10		mg/L	1		200.7	Dissolved
Manganese	0.033		0.010		mg/L	1		200.7	Dissolved
Arsenic	7.9		2.5		ug/L	5		200.8 LL	Dissolved
Dissolved Organic Carbon	2.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.4		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W306-0424 — Lab Sample ID: 550-217592-22

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1900	D2	200		mg/L	100		300.0	Total/NA
Fluoride	0.79		0.40		mg/L	1		300.0	Total/NA
Sulfate	11000	D2	400		mg/L	200		300.0	Total/NA
Boron	1.1		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	460		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.18		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	270		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.036		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	22		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	6600		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	820	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0080		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.012		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.056		0.0025		mg/L	5		200.8 LL	Total/NA
Selenium	0.0043		0.0025		mg/L	5		200.8 LL	Total/NA
Alkalinity as CaCO3	120		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	120		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	18000	B1	200		mg/L	1		SM 2540C	Total/NA
pH	7.9	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W307R-0424 — Lab Sample ID: 550-217592-23

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.17		0.10		mg/L	1		200.7	Dissolved
Manganese	0.94		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.7		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	52		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.3		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W307R-0424 — Lab Sample ID: 550-217592-24

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2200	D2	200		mg/L	100		300.0	Total/NA
Sulfate	2600	D2	200		mg/L	100		300.0	Total/NA
Boron	2.7		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	810		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.23		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	160		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.97		0.010		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: CH-CCR-W307R-0424 (Continued)

Lab Sample ID: 550-217592-24

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Potassium	8.2		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2000		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	270	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0027		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0098		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00017		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.0037		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.052		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.013		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0011		0.00050		mg/L	1		200.8 LL	Total/NA
Nitrate Nitrite as N	0.16		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	99		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	99		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7300	B1 H1	100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-25

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.055		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.3		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	0.53		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.3		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-26

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3100	D2	200		mg/L	100		300.0	Total/NA
Sulfate	2400	D2	200		mg/L	100		300.0	Total/NA
Boron	0.45		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	820		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.18		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	150		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.079		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	10		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2700		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	480	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0023		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0076		0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0071		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.00062		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0030		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0056		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	180		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	180		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	9000	B1 H1	100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-W308-0424 (Continued)

Lab Sample ID: 550-217592-26

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Temperature	11.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W309-0424

Lab Sample ID: 550-217592-27

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.10		0.10		mg/L	1		200.7	Dissolved
Manganese	0.48		0.010		mg/L	1		200.7	Dissolved
Arsenic	1.8		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	0.94		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.96		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.94		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W309-0424

Lab Sample ID: 550-217592-28

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1500	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.0		0.40		mg/L	1		300.0	Total/NA
Sulfate	3000	D2	200		mg/L	100		300.0	Total/NA
Boron	0.53		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.15		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	110		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.55		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.2		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2200		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	390	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0018		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0070		0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0066		0.0010		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0081		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.23		0.00050		mg/L	1		200.8 LL	Total/NA
Nitrate Nitrite as N	2.9		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	170		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	170		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6800	B1 H1	100		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-FD03-0424

Lab Sample ID: 550-217592-29

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.18		0.10		mg/L	1		200.7	Dissolved
Manganese	0.93		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.6		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	51		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.3		0.50		mg/L	1		SM 5310B	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 550-217592-1

Client Sample ID: CH-CCR-FD03-0424

Lab Sample ID: 550-217592-30

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2200	D2	200		mg/L	100		300.0	Total/NA
Sulfate	2600	D2	200		mg/L	100		300.0	Total/NA
Boron	2.8		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	820		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.21		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	160		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	7.6		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	280	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0028		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.010		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00016		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.0030		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.053		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.00050		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.013		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0014		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	99		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	99		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7700	B1 H1	100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	13.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M52A-0424

Lab Sample ID: 550-217592-1

Date Collected: 04/23/24 16:29

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	8.7		0.10		mg/L		04/29/24 08:59	05/07/24 05:25	1
Manganese	2.3		0.010		mg/L		04/29/24 08:59	05/07/24 05:25	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.9		0.50		ug/L		04/29/24 08:10	05/02/24 14:11	1
Cobalt	39		0.50		ug/L		04/29/24 08:10	05/02/24 14:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.8		0.50		mg/L			05/01/24 20:31	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.8		0.50		mg/L			05/01/24 20:31	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.8		0.50		mg/L			05/01/24 20:31	1

Client Sample ID: CH-CCR-M52A-0424

Lab Sample ID: 550-217592-2

Date Collected: 04/23/24 16:29

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3900	D2	200		mg/L			04/29/24 20:20	100
Fluoride	1.4		0.40		mg/L			04/29/24 19:55	1
Sulfate	2900	D2	200		mg/L			04/29/24 20:20	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.8		0.050		mg/L		04/29/24 08:59	05/07/24 05:32	1
Calcium	860		2.0		mg/L		04/29/24 08:59	05/07/24 05:32	1
Iron	11		0.10		mg/L		04/29/24 08:59	05/07/24 05:32	1
Magnesium	370		2.0		mg/L		04/29/24 08:59	05/07/24 05:32	1
Manganese	2.4		0.010		mg/L		04/29/24 08:59	05/07/24 05:32	1
Potassium	7.1		0.50		mg/L		04/29/24 08:59	05/07/24 05:32	1
Sodium	2700		50		mg/L		04/29/24 08:59	05/08/24 15:13	100
Beryllium	ND		0.10		mg/L		04/29/24 08:59	05/08/24 15:13	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	210	T5	20		ug/L		05/01/24 08:30	05/06/24 14:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:13	1
Arsenic	0.0024		0.00050		mg/L		04/29/24 08:10	05/02/24 14:13	1
Barium	0.014	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:13	1
Cadmium	0.00064		0.00010		mg/L		04/29/24 08:10	05/02/24 14:13	1
Chromium	0.0026		0.0010		mg/L		04/29/24 08:10	05/02/24 14:13	1
Cobalt	0.039		0.00050		mg/L		04/29/24 08:10	05/02/24 14:13	1
Lead	ND	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:13	1
Molybdenum	0.037		0.00050		mg/L		04/29/24 08:10	05/02/24 14:13	1

Client Sample ID: CH-CCR-M52A-0424

Lab Sample ID: 550-217592-2

Date Collected: 04/23/24 16:29

Matrix: Water

Date Received: 04/26/24 10:48

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**0.0016**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:13	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:13	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/01/24 15:10	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 17:58	1
Total Dissolved Solids (SM 2540C)	**11000**	**B1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.0**	**H5**	1.7		SU			05/01/24 17:51	1
Temperature (SM 4500 H+ B)	**15.2**	**H5 T5**	0.1		Degrees C			05/01/24 17:51	1

Client Sample ID: CH-CCR-M53A-0424

Lab Sample ID: 550-217592-3

Date Collected: 04/23/24 13:04

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 05:39	1
Manganese	**5.5**		0.010		mg/L		04/29/24 08:59	05/07/24 05:39	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.2**		0.50		ug/L		04/29/24 08:10	05/02/24 14:15	1
Cobalt	**7.8**		0.50		ug/L		04/29/24 08:10	05/02/24 14:15	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.3**		0.50		mg/L			05/01/24 20:48	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.3**		0.50		mg/L			05/01/24 20:48	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.3**		0.50		mg/L			05/01/24 20:48	1

Client Sample ID: CH-CCR-M53A-0424

Lab Sample ID: 550-217592-4

Date Collected: 04/23/24 13:04

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**	**D2**	200		mg/L			04/29/24 21:10	100
Fluoride	**2.4**		0.40		mg/L			04/29/24 20:45	1
Sulfate	**2800**	**D2**	200		mg/L			04/29/24 21:10	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.3**		0.050		mg/L		04/29/24 08:59	05/07/24 05:46	1
Calcium	**690**		2.0		mg/L		04/29/24 08:59	05/07/24 05:46	1

Client Sample ID: CH-CCR-M53A-0424

Lab Sample ID: 550-217592-4

Date Collected: 04/23/24 13:04

Matrix: Water

Date Received: 04/26/24 10:48

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 05:46	1
Manganese	**5.4**		0.010		mg/L		04/29/24 08:59	05/07/24 05:46	1
Beryllium	ND		0.10		mg/L		04/29/24 08:59	05/08/24 15:16	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**210**	**T5**	20		ug/L		05/01/24 08:30	05/06/24 14:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:17	1
Arsenic	**0.0021**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:17	1
Barium	**0.0070**	**L4**	0.00050		mg/L		04/29/24 08:10	05/02/24 14:17	1
Cadmium	**0.00058**		0.00010		mg/L		04/29/24 08:10	05/02/24 14:17	1
Chromium	**0.0010**		0.0010		mg/L		04/29/24 08:10	05/02/24 14:17	1
Cobalt	**0.0076**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:17	1
Lead	ND	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:17	1
Molybdenum	**0.033**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:17	1
Selenium	**0.0014**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:17	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:17	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.24**		0.050		mg/L			05/01/24 15:11	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 18:04	1
Total Dissolved Solids (SM 2540C)	**8000**	**B1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/03/24 15:21	1
Temperature (SM 4500 H+ B)	**8.6**	**H5 T5**	0.1		Degrees C			05/03/24 15:21	1

Client Sample ID: CH-CCR-M55A-0424

Lab Sample ID: 550-217592-5

Date Collected: 04/22/24 10:49

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 05:53	1
Manganese	ND		0.010		mg/L		04/29/24 08:59	05/07/24 05:53	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.4**		0.50		ug/L		04/29/24 08:10	05/02/24 14:19	1
Cobalt	ND		0.50		ug/L		04/29/24 08:10	05/02/24 14:19	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**3.6**		0.50		mg/L			05/01/24 21:05	1

Client Sample ID: CH-CCR-M55A-0424

Lab Sample ID: 550-217592-5

Date Collected: 04/22/24 10:49

Matrix: Water

Date Received: 04/26/24 10:48

General Chemistry - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Duplicate (SM 5310B)	3.6		0.50		mg/L			05/01/24 21:05	1
Dissolved Organic Carbon - Quad (SM 5310B)	3.6		0.50		mg/L			05/01/24 21:05	1

Client Sample ID: CH-CCR-M55A-0424

Lab Sample ID: 550-217592-6

Date Collected: 04/22/24 10:49

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4500	D2	200		mg/L			04/29/24 22:00	100
Fluoride	0.65		0.40		mg/L			04/29/24 21:35	1
Sulfate	3100	D2	200		mg/L			04/29/24 22:00	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.47		0.050		mg/L		04/29/24 08:59	05/07/24 06:00	1
Calcium	800		2.0		mg/L		04/29/24 08:59	05/07/24 06:00	1
Iron	0.17		0.10		mg/L		04/29/24 08:59	05/07/24 06:00	1
Magnesium	200		2.0		mg/L		04/29/24 08:59	05/07/24 06:00	1
Manganese	ND		0.010		mg/L		04/29/24 08:59	05/07/24 06:00	1
Potassium	2.8		0.50		mg/L		04/29/24 08:59	05/07/24 06:00	1
Sodium	3700		50		mg/L		04/29/24 08:59	05/08/24 15:20	100
Beryllium	ND		0.10		mg/L		04/29/24 08:59	05/08/24 15:20	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	460	T5	20		ug/L		05/01/24 08:30	05/06/24 14:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:21	1
Arsenic	0.0026		0.00050		mg/L		04/29/24 08:10	05/02/24 14:21	1
Barium	0.014	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:21	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:21	1
Chromium	0.0069		0.0010		mg/L		04/29/24 08:10	05/02/24 14:21	1
Cobalt	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 14:21	1
Lead	ND	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:21	1
Molybdenum	0.0048		0.00050		mg/L		04/29/24 08:10	05/02/24 14:21	1
Selenium	0.17		0.00050		mg/L		04/29/24 08:10	05/02/24 14:21	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:21	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00022		0.00020		mg/L		04/29/24 11:03	04/29/24 14:25	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/08/24 11:42	1
Nitrate Nitrite as N (EPA 353.2)	0.49		0.10		mg/L			05/08/24 18:06	1
Total Dissolved Solids (SM 2540C)	11000	B1 H1	100		mg/L			04/30/24 14:05	1

Client Sample ID: CH-CCR-M55A-0424

Lab Sample ID: 550-217592-6

Date Collected: 04/22/24 10:49

Matrix: Water

Date Received: 04/26/24 10:48

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	H5	1.7		SU			05/03/24 15:22	1
Temperature (SM 4500 H+ B)	8.4	H5 T5	0.1		Degrees C			05/03/24 15:22	1

Client Sample ID: CH-CCR-MW69A-0424

Lab Sample ID: 550-217592-7

Date Collected: 04/25/24 09:58

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.48		0.10		mg/L		04/29/24 08:59	05/07/24 06:13	1
Manganese	0.10		0.010		mg/L		04/29/24 08:59	05/07/24 06:13	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.9		0.50		ug/L		04/29/24 08:10	05/02/24 14:31	1
Cobalt	16		0.50		ug/L		04/29/24 08:10	05/02/24 14:31	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.4		0.50		mg/L			05/01/24 21:18	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.4		0.50		mg/L			05/01/24 21:18	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.4		0.50		mg/L			05/01/24 21:18	1

Client Sample ID: CH-CCR-MW69A-0424

Lab Sample ID: 550-217592-8

Date Collected: 04/25/24 09:58

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2400	D2	200		mg/L			04/29/24 22:50	100
Fluoride	1.3		0.40		mg/L			04/29/24 22:25	1
Sulfate	2800	D2	200		mg/L			04/29/24 22:50	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	3.8		0.050		mg/L		04/29/24 08:59	05/07/24 06:20	1
Calcium	760		2.0		mg/L		04/29/24 08:59	05/07/24 06:20	1
Iron	1.0		0.10		mg/L		04/29/24 08:59	05/07/24 06:20	1
Magnesium	220		2.0		mg/L		04/29/24 08:59	05/07/24 06:20	1
Manganese	0.76		0.010		mg/L		04/29/24 08:59	05/07/24 06:20	1
Potassium	8.4		0.50		mg/L		04/29/24 08:59	05/07/24 06:20	1
Sodium	2100		50		mg/L		04/29/24 08:59	05/08/24 15:23	100
Beryllium	ND		0.10		mg/L		04/29/24 08:59	05/08/24 15:23	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	200	T5	20		ug/L		05/01/24 08:30	05/06/24 15:01	1

Client Sample ID: CH-CCR-MW69A-0424

Lab Sample ID: 550-217592-8

Date Collected: 04/25/24 09:58

Matrix: Water

Date Received: 04/26/24 10:48

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:33	1
Arsenic	**0.0021**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:33	1
Barium	**0.014**	**L4**	0.00050		mg/L		04/29/24 08:10	05/02/24 14:33	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:33	1
Chromium	**0.21**		0.0010		mg/L		04/29/24 08:10	05/02/24 14:33	1
Cobalt	**0.016**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:33	1
Lead	ND	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:33	1
Molybdenum	**0.038**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:33	1
Selenium	**0.0012**		0.00050		mg/L		04/29/24 08:10	05/07/24 12:53	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:33	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/08/24 11:47	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 18:08	1
Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			05/02/24 12:32	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/02/24 12:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			05/02/24 12:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/02/24 12:32	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/02/24 12:32	1
Total Dissolved Solids (SM 2540C)	**8200**		100		mg/L			05/01/24 15:31	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/03/24 15:23	1
Temperature (SM 4500 H+ B)	**10.1**	**H5 T5**	0.1		Degrees C			05/03/24 15:23	1

Client Sample ID: CH-CCR-MW70M-0424

Lab Sample ID: 550-217592-9

Date Collected: 04/25/24 11:27

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 06:27	1
Manganese	**2.1**		0.010		mg/L		04/29/24 08:59	05/07/24 06:27	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.0**		0.50		ug/L		04/29/24 08:10	05/02/24 14:35	1
Cobalt	**17**		0.50		ug/L		04/29/24 08:10	05/02/24 14:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.4**		0.50		mg/L			05/01/24 21:35	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.4**		0.50		mg/L			05/01/24 21:35	1

Client Sample ID: CH-CCR-MW70M-0424

Lab Sample ID: 550-217592-9

Date Collected: 04/25/24 11:27

Matrix: Water

Date Received: 04/26/24 10:48

General Chemistry - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad (SM 5310B)	1.4		0.50		mg/L			05/01/24 21:35	1

Client Sample ID: CH-CCR-MW70M-0424

Lab Sample ID: 550-217592-10

Date Collected: 04/25/24 11:27

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2000	D2	200		mg/L			04/30/24 00:55	100
Fluoride	1.3		0.40		mg/L			04/29/24 23:15	1
Sulfate	2600	D2	200		mg/L			04/30/24 00:55	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.7		0.050		mg/L		04/29/24 08:59	05/07/24 06:34	1
Calcium	690		2.0		mg/L		04/29/24 08:59	05/07/24 06:34	1
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 06:34	1
Magnesium	190		2.0		mg/L		04/29/24 08:59	05/07/24 06:34	1
Manganese	2.1		0.010		mg/L		04/29/24 08:59	05/07/24 06:34	1
Potassium	11		0.50		mg/L		04/29/24 08:59	05/07/24 06:34	1
Sodium	1500		50		mg/L		04/29/24 08:59	05/08/24 15:26	100
Beryllium	ND		0.10		mg/L		04/29/24 08:59	05/08/24 15:26	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	190	T5	20		ug/L		05/01/24 08:30	05/06/24 15:05	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:37	1
Arsenic	0.0019		0.00050		mg/L		04/29/24 08:10	05/02/24 14:37	1
Barium	0.010	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:37	1
Cadmium	0.00038		0.00010		mg/L		04/29/24 08:10	05/02/24 14:37	1
Chromium	0.0012		0.0010		mg/L		04/29/24 08:10	05/02/24 14:37	1
Cobalt	0.016		0.00050		mg/L		04/29/24 08:10	05/02/24 14:37	1
Lead	0.0016	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:37	1
Molybdenum	0.038		0.00050		mg/L		04/29/24 08:10	05/02/24 14:37	1
Selenium	0.0025		0.00050		mg/L		04/29/24 08:10	05/07/24 12:55	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:37	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/08/24 11:48	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 18:10	1
Alkalinity as CaCO3 (SM 2320B)	88		6.0		mg/L			05/02/24 12:39	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/02/24 12:39	1

Client Sample ID: CH-CCR-MW70M-0424

Lab Sample ID: 550-217592-10

Date Collected: 04/25/24 11:27

Matrix: Water

Date Received: 04/26/24 10:48

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**88**		6.0		mg/L			05/02/24 12:39	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/02/24 12:39	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/02/24 12:39	1
Total Dissolved Solids (SM 2540C)	**7400**		100		mg/L			05/01/24 15:31	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/03/24 15:25	1
Temperature (SM 4500 H+ B)	**9.4**	**H5 T5**	0.1		Degrees C			05/03/24 15:25	1

Client Sample ID: CH-CCR-MW73A-0424

Lab Sample ID: 550-217592-11

Date Collected: 04/24/24 15:27

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.17**		0.10		mg/L		04/29/24 08:59	05/07/24 06:41	1
Manganese	**0.73**		0.010		mg/L		04/29/24 08:59	05/07/24 06:41	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.6**		0.50		ug/L		04/29/24 08:10	05/02/24 14:39	1
Cobalt	**13**		0.50		ug/L		04/29/24 08:10	05/02/24 14:39	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.7**		0.50		mg/L			05/01/24 21:50	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.7**		0.50		mg/L			05/01/24 21:50	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.7**		0.50		mg/L			05/01/24 21:50	1

Client Sample ID: CH-CCR-MW73A-0424

Lab Sample ID: 550-217592-12

Date Collected: 04/24/24 15:27

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2400**	**D2**	200		mg/L			04/30/24 01:46	100
Fluoride	**3.4**		0.40		mg/L			04/30/24 01:20	1
Sulfate	**3000**	**D2**	200		mg/L			04/30/24 01:46	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.1**		0.050		mg/L		04/29/24 08:59	05/07/24 06:47	1
Calcium	**650**		2.0		mg/L		04/29/24 08:59	05/07/24 06:47	1
Iron	**2.1**		0.10		mg/L		04/29/24 08:59	05/07/24 06:47	1
Magnesium	**310**		2.0		mg/L		04/29/24 08:59	05/07/24 06:47	1
Manganese	**2.0**		0.010		mg/L		04/29/24 08:59	05/07/24 06:47	1
Potassium	**20**		0.50		mg/L		04/29/24 08:59	05/07/24 06:47	1
Sodium	**2000**		50		mg/L		04/29/24 08:59	05/08/24 15:30	100
Beryllium	ND		0.10		mg/L		04/29/24 08:59	05/08/24 15:30	100

Client Sample ID: CH-CCR-MW73A-0424

Lab Sample ID: 550-217592-12

Date Collected: 04/24/24 15:27

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**210**	**T5**	20		ug/L		05/01/24 08:30	05/06/24 15:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:41	1
Arsenic	**0.0037**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:41	1
Barium	**0.011**	**L4**	0.00050		mg/L		04/29/24 08:10	05/02/24 14:41	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:41	1
Chromium	**0.27**		0.0010		mg/L		04/29/24 08:10	05/02/24 14:41	1
Cobalt	**0.015**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:41	1
Lead	**0.00087**	**L4**	0.00050		mg/L		04/29/24 08:10	05/02/24 14:41	1
Molybdenum	**0.092**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:41	1
Selenium	**0.0012**		0.00050		mg/L		04/29/24 08:10	05/07/24 12:57	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:41	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/08/24 11:50	1
Nitrate Nitrite as N (EPA 353.2)	**0.21**		0.10		mg/L			05/08/24 18:12	1
Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			05/03/24 11:23	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 11:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			05/03/24 11:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:23	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:23	1
Total Dissolved Solids (SM 2540C)	**8200**	**B1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			05/03/24 15:26	1
Temperature (SM 4500 H+ B)	**9.4**	**H5 T5**	0.1		Degrees C			05/03/24 15:26	1

Client Sample ID: CH-CCR-MW74M-0424

Lab Sample ID: 550-217592-13

Date Collected: 04/24/24 12:04

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 06:54	1
Manganese	**0.19**		0.010		mg/L		04/29/24 08:59	05/07/24 06:54	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.8**		0.50		ug/L		04/29/24 08:10	05/02/24 14:43	1
Cobalt	**15**		0.50		ug/L		04/29/24 08:10	05/02/24 14:43	1

Client Sample ID: CH-CCR-MW74M-0424

Lab Sample ID: 550-217592-13

Date Collected: 04/24/24 12:04

Matrix: Water

Date Received: 04/26/24 10:48

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.1		0.50		mg/L			05/01/24 22:02	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.1		0.50		mg/L			05/01/24 22:02	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.1		0.50		mg/L			05/01/24 22:02	1

Client Sample ID: CH-CCR-MW74M-0424

Lab Sample ID: 550-217592-14

Date Collected: 04/24/24 12:04

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1800	D2	200		mg/L			04/30/24 02:36	100
Fluoride	1.2		0.40		mg/L			04/30/24 02:11	1
Sulfate	2200	D2	200		mg/L			04/30/24 02:36	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.5		0.050		mg/L		04/29/24 08:59	05/07/24 07:01	1
Calcium	780		2.0		mg/L		04/29/24 08:59	05/07/24 07:01	1
Iron	1.1		0.10		mg/L		04/29/24 08:59	05/07/24 07:01	1
Magnesium	170		2.0		mg/L		04/29/24 08:59	05/07/24 07:01	1
Manganese	0.24		0.010		mg/L		04/29/24 08:59	05/07/24 07:01	1
Potassium	19		0.50		mg/L		04/29/24 08:59	05/07/24 07:01	1
Sodium	1600		50		mg/L		04/29/24 08:59	05/08/24 15:33	100
Beryllium	ND		0.10		mg/L		04/29/24 08:59	05/08/24 15:33	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	220	T5	20		ug/L		05/01/24 08:30	05/06/24 15:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:45	1
Arsenic	0.0023		0.00050		mg/L		04/29/24 08:10	05/02/24 14:45	1
Barium	0.014	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:45	1
Cadmium	0.00022		0.00010		mg/L		04/29/24 08:10	05/02/24 14:45	1
Chromium	0.0037		0.0010		mg/L		04/29/24 08:10	05/02/24 14:45	1
Cobalt	0.015		0.00050		mg/L		04/29/24 08:10	05/02/24 14:45	1
Lead	0.0010	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:45	1
Molybdenum	0.045		0.00050		mg/L		04/29/24 08:10	05/02/24 14:45	1
Selenium	0.0015		0.00050		mg/L		04/29/24 08:10	05/07/24 12:59	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:45	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:34	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/08/24 11:51	1

Client Sample ID: CH-CCR-MW74M-0424

Lab Sample ID: 550-217592-14

Date Collected: 04/24/24 12:04

Matrix: Water

Date Received: 04/26/24 10:48

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 18:14	1
Alkalinity as CaCO3 (SM 2320B)	**82**		6.0		mg/L			05/03/24 11:30	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 11:30	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**82**		6.0		mg/L			05/03/24 11:30	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:30	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:30	1
Total Dissolved Solids (SM 2540C)	**7100**	**B1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/03/24 15:31	1
Temperature (SM 4500 H+ B)	**11.2**	**H5 T5**	0.1		Degrees C			05/03/24 15:31	1

Client Sample ID: CH-CCR-W301-0424

Lab Sample ID: 550-217592-15

Date Collected: 04/23/24 09:52

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.10**		0.10		mg/L		04/29/24 08:59	05/07/24 07:08	1
Manganese	**1.4**		0.010		mg/L		04/29/24 08:59	05/07/24 07:08	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.1**		0.50		ug/L		04/29/24 08:10	05/02/24 14:47	1
Cobalt	**22**		0.50		ug/L		04/29/24 08:10	05/02/24 14:47	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.5**		0.50		mg/L			05/01/24 22:17	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.5**		0.50		mg/L			05/01/24 22:17	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.5**		0.50		mg/L			05/01/24 22:17	1

Client Sample ID: CH-CCR-W301-0424

Lab Sample ID: 550-217592-16

Date Collected: 04/23/24 09:52

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5700**	**D2**	200		mg/L			04/30/24 03:26	100
Fluoride	ND		0.40		mg/L			04/30/24 03:01	1
Sulfate	**3700**	**D2**	200		mg/L			04/30/24 03:26	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.71**		0.050		mg/L		04/29/24 09:05	05/07/24 02:59	1
Calcium	**780**		2.0		mg/L		04/29/24 09:05	05/07/24 02:59	1
Iron	**0.15**		0.10		mg/L		04/29/24 09:05	05/07/24 02:59	1
Magnesium	**210**		2.0		mg/L		04/29/24 09:05	05/07/24 02:59	1
Manganese	**1.7**		0.010		mg/L		04/29/24 09:05	05/07/24 02:59	1

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

Job ID: 550-217592-1

Client Sample ID: CH-CCR-W301-0424

Lab Sample ID: 550-217592-16

Date Collected: 04/23/24 09:52

Matrix: Water

Date Received: 04/26/24 10:48

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**19**		0.50		mg/L		04/29/24 09:05	05/07/24 02:59	1
Sodium	**5100**		50		mg/L		04/29/24 09:05	05/08/24 14:16	100
Beryllium	ND		0.10		mg/L		04/29/24 09:05	05/08/24 14:16	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**570**	**T5**	20		ug/L		05/01/24 08:30	05/06/24 15:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:16	05/02/24 16:16	1
Arsenic	**0.0052**		0.0025		mg/L		04/29/24 08:16	05/07/24 13:21	5
Barium	**0.0072**	**M1**	0.00050		mg/L		04/29/24 08:16	05/02/24 16:16	1
Cadmium	**0.00017**		0.00010		mg/L		04/29/24 08:16	05/02/24 16:16	1
Chromium	**0.021**		0.0050		mg/L		04/29/24 08:16	05/07/24 13:21	5
Cobalt	**0.024**		0.0025		mg/L		04/29/24 08:16	05/07/24 13:21	5
Lead	ND		0.0025		mg/L		04/29/24 08:16	05/07/24 13:21	5
Molybdenum	**0.0084**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:16	1
Selenium	**0.0058**		0.0025		mg/L		04/29/24 08:16	05/07/24 13:21	5
Thallium	ND		0.00050		mg/L		04/29/24 08:16	05/07/24 13:21	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:42	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/08/24 11:53	1
Nitrate Nitrite as N (EPA 353.2)	**13**		0.50		mg/L			05/09/24 15:27	5
Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			05/03/24 11:36	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 11:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			05/03/24 11:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:36	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:36	1
Total Dissolved Solids (SM 2540C)	**15000**	**B1**	200		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/03/24 15:32	1
Temperature (SM 4500 H+ B)	**11.7**	**H5 T5**	0.1		Degrees C			05/03/24 15:32	1

Client Sample ID: CH-CCR-W303-0424

Lab Sample ID: 550-217592-17

Date Collected: 04/23/24 11:16

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/29/24 09:05	05/07/24 02:52	1
Manganese	**0.020**		0.010		mg/L		04/29/24 09:05	05/07/24 02:52	1

Client Sample ID: CH-CCR-W303-0424

Lab Sample ID: 550-217592-17

Date Collected: 04/23/24 11:16

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0		0.50		ug/L		04/29/24 08:16	05/02/24 16:18	1
Cobalt	19		0.50		ug/L		04/29/24 08:16	05/02/24 16:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	3.0		0.50		mg/L			05/06/24 14:24	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	3.0		0.50		mg/L			05/06/24 14:24	1
Dissolved Organic Carbon - Quad (SM 5310B)	3.0		0.50		mg/L			05/06/24 14:24	1

Client Sample ID: CH-CCR-W303-0424

Lab Sample ID: 550-217592-18

Date Collected: 04/23/24 11:16

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2900	D2	200		mg/L			04/30/24 04:16	100
Fluoride	0.56		0.40		mg/L			04/30/24 03:51	1
Sulfate	3200	D2	200		mg/L			04/30/24 04:16	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.1		0.050		mg/L		04/29/24 09:05	05/07/24 02:46	1
Calcium	710	M3	2.0		mg/L		04/29/24 09:05	05/07/24 02:46	1
Iron	0.21		0.10		mg/L		04/29/24 09:05	05/07/24 02:46	1
Magnesium	250	M3	2.0		mg/L		04/29/24 09:05	05/07/24 02:46	1
Manganese	0.26		0.010		mg/L		04/29/24 09:05	05/07/24 02:46	1
Potassium	15	M1	0.50		mg/L		04/29/24 09:05	05/07/24 02:46	1
Sodium	2600	M3 R4	50		mg/L		04/29/24 09:05	05/08/24 14:12	100
Beryllium	ND	M1 R4	0.10		mg/L		04/29/24 09:05	05/08/24 14:12	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	320	T5	20		ug/L		05/01/24 08:30	05/09/24 16:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:16	05/02/24 16:21	1
Arsenic	0.0022		0.00050		mg/L		04/29/24 08:16	05/02/24 16:21	1
Barium	0.0040		0.00050		mg/L		04/29/24 08:16	05/02/24 16:21	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:21	1
Chromium	0.028		0.0010		mg/L		04/29/24 08:16	05/02/24 16:21	1
Cobalt	0.019		0.00050		mg/L		04/29/24 08:16	05/02/24 16:21	1
Lead	ND		0.00050		mg/L		04/29/24 08:16	05/02/24 16:21	1
Molybdenum	0.033		0.00050		mg/L		04/29/24 08:16	05/02/24 16:21	1
Selenium	0.0015		0.00050		mg/L		04/29/24 08:16	05/07/24 13:27	1
Thallium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:21	1

Client Sample ID: CH-CCR-W303-0424

Lab Sample ID: 550-217592-18

Date Collected: 04/23/24 11:16

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:45	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/08/24 11:54	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 18:18	1
Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			05/03/24 11:42	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 11:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			05/03/24 11:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:42	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:42	1
Total Dissolved Solids (SM 2540C)	**9200**	**B1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			05/03/24 15:33	1
Temperature (SM 4500 H+ B)	**11.6**	**H5 T5**	0.1		Degrees C			05/03/24 15:33	1

Client Sample ID: CH-CCR-W304-0424

Lab Sample ID: 550-217592-19

Date Collected: 04/22/24 16:34

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.44**		0.10		mg/L		04/29/24 09:05	05/07/24 03:06	1
Manganese	**3.7**		0.010		mg/L		04/29/24 09:05	05/07/24 03:06	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.7**		0.50		ug/L		04/29/24 08:16	05/02/24 16:23	1
Cobalt	**11**		0.50		ug/L		04/29/24 08:16	05/02/24 16:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.1**		0.50		mg/L			05/06/24 15:22	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.1**		0.50		mg/L			05/06/24 15:22	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.1**		0.50		mg/L			05/06/24 15:22	1

Client Sample ID: CH-CCR-W304-0424

Lab Sample ID: 550-217592-20

Date Collected: 04/22/24 16:34

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2400**	**D2**	200		mg/L			04/29/24 14:35	100
Fluoride	ND		0.40		mg/L			04/29/24 14:16	1
Sulfate	**2300**	**D2**	200		mg/L			04/29/24 14:35	100

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

Job ID: 550-217592-1

Client Sample ID: CH-CCR-W304-0424

Date Collected: 04/22/24 16:34
Date Received: 04/26/24 10:48

Lab Sample ID: 550-217592-20

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.49**		0.050		mg/L		04/29/24 09:05	05/07/24 03:13	1
Calcium	**840**		2.0		mg/L		04/29/24 09:05	05/07/24 03:13	1
Iron	**0.49**		0.10		mg/L		04/29/24 09:05	05/07/24 03:13	1
Magnesium	**140**		2.0		mg/L		04/29/24 09:05	05/07/24 03:13	1
Manganese	**3.8**		0.010		mg/L		04/29/24 09:05	05/07/24 03:13	1
Potassium	**11**		0.50		mg/L		04/29/24 09:05	05/07/24 03:13	1
Sodium	**2200**		50		mg/L		04/29/24 09:05	05/08/24 14:19	100
Beryllium	ND		0.10		mg/L		04/29/24 09:05	05/08/24 14:19	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**400**	**T5**	20		ug/L		05/01/24 08:30	05/09/24 17:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:16	05/02/24 16:25	1
Arsenic	**0.0016**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:25	1
Barium	**0.0093**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:25	1
Cadmium	**0.00010**		0.00010		mg/L		04/29/24 08:16	05/02/24 16:25	1
Chromium	**0.0061**		0.0010		mg/L		04/29/24 08:16	05/02/24 16:25	1
Cobalt	**0.011**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:25	1
Lead	ND		0.00050		mg/L		04/29/24 08:16	05/02/24 16:25	1
Molybdenum	**0.0067**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:25	1
Selenium	**0.0012**		0.00050		mg/L		04/29/24 08:16	05/07/24 13:29	1
Thallium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:25	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:47	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/02/24 12:20	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 18:20	1
Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			04/30/24 16:43	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 16:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			04/30/24 16:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 16:43	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 16:43	1
Total Dissolved Solids (SM 2540C)	**8100**	**B1 H1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/03/24 15:35	1
Temperature (SM 4500 H+ B)	**11.4**	**H5 T5**	0.1		Degrees C			05/03/24 15:35	1

Client Sample ID: CH-CCR-W306-0424

Lab Sample ID: 550-217592-21

Date Collected: 04/23/24 14:02

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.17**		0.10		mg/L		04/29/24 09:05	05/07/24 03:20	1
Manganese	**0.033**		0.010		mg/L		04/29/24 09:05	05/07/24 03:20	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**7.9**		2.5		ug/L		04/29/24 08:16	05/07/24 13:23	5
Cobalt	ND		2.5		ug/L		04/29/24 08:16	05/07/24 13:23	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.4**		0.50		mg/L			05/06/24 15:35	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.4**		0.50		mg/L			05/06/24 15:35	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.4**		0.50		mg/L			05/06/24 15:35	1

Client Sample ID: CH-CCR-W306-0424

Lab Sample ID: 550-217592-22

Date Collected: 04/23/24 14:02

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1900**	**D2**	200		mg/L			04/29/24 15:48	100
Fluoride	**0.79**		0.40		mg/L			04/29/24 15:30	1
Sulfate	**11000**	**D2**	400		mg/L			05/02/24 09:45	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.1**		0.050		mg/L		04/29/24 09:05	05/07/24 03:26	1
Calcium	**460**		2.0		mg/L		04/29/24 09:05	05/07/24 03:26	1
Iron	**0.18**		0.10		mg/L		04/29/24 09:05	05/07/24 03:26	1
Magnesium	**270**		2.0		mg/L		04/29/24 09:05	05/07/24 03:26	1
Manganese	**0.036**		0.010		mg/L		04/29/24 09:05	05/07/24 03:26	1
Potassium	**22**		0.50		mg/L		04/29/24 09:05	05/07/24 03:26	1
Sodium	**6600**		50		mg/L		04/29/24 09:05	05/08/24 14:23	100
Beryllium	ND		0.10		mg/L		04/29/24 09:05	05/08/24 14:23	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**820**	**T5**	20		ug/L		05/01/24 08:30	05/09/24 17:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		04/29/24 08:16	05/07/24 13:25	5
Arsenic	**0.0080**		0.0025		mg/L		04/29/24 08:16	05/07/24 13:25	5
Barium	**0.012**		0.0025		mg/L		04/29/24 08:16	05/07/24 13:25	5
Cadmium	ND		0.00050		mg/L		04/29/24 08:16	05/07/24 13:25	5
Chromium	ND		0.0050		mg/L		04/29/24 08:16	05/07/24 13:25	5
Cobalt	ND		0.0025		mg/L		04/29/24 08:16	05/07/24 13:25	5
Lead	ND		0.0025		mg/L		04/29/24 08:16	05/07/24 13:25	5
Molybdenum	**0.056**		0.0025		mg/L		04/29/24 08:16	05/07/24 13:25	5

Client Sample ID: CH-CCR-W306-0424

Lab Sample ID: 550-217592-22

Date Collected: 04/23/24 14:02

Matrix: Water

Date Received: 04/26/24 10:48

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**0.0043**		0.0025		mg/L		04/29/24 08:16	05/07/24 13:25	5
Thallium	ND		0.00050		mg/L		04/29/24 08:16	05/07/24 13:25	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:49	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/02/24 12:24	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 18:38	1
Alkalinity as CaCO3 (SM 2320B)	**120**		6.0		mg/L			05/03/24 11:49	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 11:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**120**		6.0		mg/L			05/03/24 11:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:49	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:49	1
Total Dissolved Solids (SM 2540C)	**18000**	**B1**	200		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.9**	**H5**	1.7		SU			05/03/24 15:36	1
Temperature (SM 4500 H+ B)	**11.7**	**H5 T5**	0.1		Degrees C			05/03/24 15:36	1

Client Sample ID: CH-CCR-W307R-0424

Lab Sample ID: 550-217592-23

Date Collected: 04/22/24 14:46

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.17**		0.10		mg/L		04/29/24 09:05	05/07/24 03:33	1
Manganese	**0.94**		0.010		mg/L		04/29/24 09:05	05/07/24 03:33	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.7**		0.50		ug/L		04/29/24 08:16	05/02/24 16:31	1
Cobalt	**52**		0.50		ug/L		04/29/24 08:16	05/02/24 16:31	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.3**		0.50		mg/L			05/06/24 15:47	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.3**		0.50		mg/L			05/06/24 15:47	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.3**		0.50		mg/L			05/06/24 15:47	1

Client Sample ID: CH-CCR-W307R-0424

Lab Sample ID: 550-217592-24

Date Collected: 04/22/24 14:46

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2200**	**D2**	200		mg/L			04/29/24 16:25	100

Client Sample ID: CH-CCR-W307R-0424
Date Collected: 04/22/24 14:46
Date Received: 04/26/24 10:48

Lab Sample ID: 550-217592-24
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			04/29/24 16:07	1
Sulfate	**2600**	**D2**	200		mg/L			04/29/24 16:25	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.7**		0.050		mg/L		04/29/24 09:05	05/07/24 03:47	1
Calcium	**810**		2.0		mg/L		04/29/24 09:05	05/07/24 03:47	1
Iron	**0.23**		0.10		mg/L		04/29/24 09:05	05/07/24 03:47	1
Magnesium	**160**		2.0		mg/L		04/29/24 09:05	05/07/24 03:47	1
Manganese	**0.97**		0.010		mg/L		04/29/24 09:05	05/07/24 03:47	1
Potassium	**8.2**		0.50		mg/L		04/29/24 09:05	05/07/24 03:47	1
Sodium	**2000**		50		mg/L		04/29/24 09:05	05/08/24 14:26	100
Beryllium	ND		0.10		mg/L		04/29/24 09:05	05/08/24 14:26	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**270**	**T5**	20		ug/L		05/01/24 08:30	05/09/24 17:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:16	05/02/24 16:33	1
Arsenic	**0.0027**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:33	1
Barium	**0.0098**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:33	1
Cadmium	**0.00017**		0.00010		mg/L		04/29/24 08:16	05/02/24 16:33	1
Chromium	**0.0037**		0.0010		mg/L		04/29/24 08:16	05/02/24 16:33	1
Cobalt	**0.052**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:33	1
Lead	ND		0.00050		mg/L		04/29/24 08:16	05/02/24 16:33	1
Molybdenum	**0.013**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:33	1
Selenium	**0.0011**		0.00050		mg/L		04/29/24 08:16	05/07/24 13:31	1
Thallium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:33	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:51	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/02/24 12:26	1
Nitrate Nitrite as N (EPA 353.2)	**0.16**		0.10		mg/L			05/09/24 15:15	1
Alkalinity as CaCO3 (SM 2320B)	**99**		6.0		mg/L			04/30/24 16:49	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 16:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**99**		6.0		mg/L			04/30/24 16:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 16:49	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 16:49	1
Total Dissolved Solids (SM 2540C)	**7300**	**B1 H1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/03/24 15:37	1
Temperature (SM 4500 H+ B)	**11.6**	**H5 T5**	0.1		Degrees C			05/03/24 15:37	1

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-25

Date Collected: 04/22/24 13:35

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/29/24 09:05	05/07/24 03:54	1
Manganese	**0.055**		0.010		mg/L		04/29/24 09:05	05/07/24 03:54	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.3**		0.50		ug/L		04/29/24 08:16	05/02/24 16:35	1
Cobalt	**0.53**		0.50		ug/L		04/29/24 08:16	05/02/24 16:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.3**		0.50		mg/L			05/06/24 16:02	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.3**		0.50		mg/L			05/06/24 16:02	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.3**		0.50		mg/L			05/06/24 16:02	1

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-26

Date Collected: 04/22/24 13:35

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3100**	**D2**	200		mg/L			04/29/24 17:02	100
Fluoride	ND		0.40		mg/L			04/29/24 16:44	1
Sulfate	**2400**	**D2**	200		mg/L			04/29/24 17:02	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.45**		0.050		mg/L		04/29/24 09:05	05/07/24 04:00	1
Calcium	**820**		2.0		mg/L		04/29/24 09:05	05/07/24 04:00	1
Iron	**0.18**		0.10		mg/L		04/29/24 09:05	05/07/24 04:00	1
Magnesium	**150**		2.0		mg/L		04/29/24 09:05	05/07/24 04:00	1
Manganese	**0.079**		0.010		mg/L		04/29/24 09:05	05/07/24 04:00	1
Potassium	**10**		0.50		mg/L		04/29/24 09:05	05/07/24 04:00	1
Sodium	**2700**		50		mg/L		04/29/24 09:05	05/08/24 14:29	100
Beryllium	ND		0.10		mg/L		04/29/24 09:05	05/08/24 14:29	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**480**	**T5**	20		ug/L		05/01/24 08:30	05/09/24 17:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:16	05/02/24 16:43	1
Arsenic	**0.0023**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:43	1
Barium	**0.0076**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:43	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:43	1
Chromium	**0.0071**		0.0010		mg/L		04/29/24 08:16	05/02/24 16:43	1
Cobalt	**0.00062**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:43	1
Lead	ND		0.00050		mg/L		04/29/24 08:16	05/02/24 16:43	1
Molybdenum	**0.0030**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:43	1

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-26

Date Collected: 04/22/24 13:35

Matrix: Water

Date Received: 04/26/24 10:48

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**0.0056**		0.00050		mg/L		04/29/24 08:16	05/07/24 13:34	1
Thallium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:43	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:53	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/02/24 12:27	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/09/24 15:21	1
Alkalinity as CaCO3 (SM 2320B)	**180**		6.0		mg/L			04/30/24 16:55	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 16:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**180**		6.0		mg/L			04/30/24 16:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 16:55	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 16:55	1
Total Dissolved Solids (SM 2540C)	**9000**	**B1 H1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			05/03/24 15:38	1
Temperature (SM 4500 H+ B)	**11.6**	**H5 T5**	0.1		Degrees C			05/03/24 15:38	1

Client Sample ID: CH-CCR-W309-0424

Lab Sample ID: 550-217592-27

Date Collected: 04/22/24 09:49

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.10**		0.10		mg/L		04/29/24 09:05	05/07/24 04:07	1
Manganese	**0.48**		0.010		mg/L		04/29/24 09:05	05/07/24 04:07	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.8**		0.50		ug/L		04/29/24 08:16	05/02/24 16:45	1
Cobalt	ND		0.50		ug/L		04/29/24 08:16	05/02/24 16:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.94**		0.50		mg/L			05/06/24 16:17	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.96**		0.50		mg/L			05/06/24 16:17	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.94**		0.50		mg/L			05/06/24 16:17	1

Client Sample ID: CH-CCR-W309-0424

Lab Sample ID: 550-217592-28

Date Collected: 04/22/24 09:49

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1500**	**D2**	200		mg/L			04/29/24 18:16	100

Client Sample ID: CH-CCR-W309-0424

Date Collected: 04/22/24 09:49
Date Received: 04/26/24 10:48

Lab Sample ID: 550-217592-28

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.0**		0.40		mg/L			04/29/24 17:57	1
Sulfate	**3000**	**D2**	200		mg/L			04/29/24 18:16	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.53**		0.050		mg/L		04/29/24 09:05	05/07/24 04:14	1
Calcium	**530**		2.0		mg/L		04/29/24 09:05	05/07/24 04:14	1
Iron	**0.15**		0.10		mg/L		04/29/24 09:05	05/07/24 04:14	1
Magnesium	**110**		2.0		mg/L		04/29/24 09:05	05/07/24 04:14	1
Manganese	**0.55**		0.010		mg/L		04/29/24 09:05	05/07/24 04:14	1
Potassium	**9.2**		0.50		mg/L		04/29/24 09:05	05/07/24 04:14	1
Sodium	**2200**		50		mg/L		04/29/24 09:05	05/08/24 14:33	100
Beryllium	ND		0.10		mg/L		04/29/24 09:05	05/08/24 14:33	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**390**	**T5**	20		ug/L		05/01/24 08:30	05/09/24 17:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:16	05/02/24 16:47	1
Arsenic	**0.0018**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:47	1
Barium	**0.0070**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:47	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:47	1
Chromium	**0.0066**		0.0010		mg/L		04/29/24 08:16	05/02/24 16:47	1
Cobalt	ND		0.00050		mg/L		04/29/24 08:16	05/02/24 16:47	1
Lead	ND		0.00050		mg/L		04/29/24 08:16	05/02/24 16:47	1
Molybdenum	**0.0081**		0.00050		mg/L		04/29/24 08:16	05/02/24 16:47	1
Selenium	**0.23**		0.00050		mg/L		04/29/24 08:16	05/07/24 13:35	1
Thallium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:47	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	M1	0.00020		mg/L		05/08/24 11:42	05/08/24 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/02/24 12:29	1
Nitrate Nitrite as N (EPA 353.2)	**2.9**		0.10		mg/L			05/09/24 15:23	1
Alkalinity as CaCO3 (SM 2320B)	**170**		6.0		mg/L			04/30/24 17:02	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 17:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**170**		6.0		mg/L			04/30/24 17:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 17:02	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 17:02	1
Total Dissolved Solids (SM 2540C)	**6800**	**B1 H1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			05/03/24 15:39	1
Temperature (SM 4500 H+ B)	**12.2**	**H5 T5**	0.1		Degrees C			05/03/24 15:39	1

Client Sample ID: CH-CCR-FD03-0424

Lab Sample ID: 550-217592-29

Date Collected: 04/22/24 16:20

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.18		0.10		mg/L		04/29/24 09:05	05/07/24 04:21	1
Manganese	0.93		0.010		mg/L		04/29/24 09:05	05/07/24 04:21	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.6		0.50		ug/L		04/29/24 08:16	05/02/24 16:49	1
Cobalt	51		0.50		ug/L		04/29/24 08:16	05/02/24 16:49	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.3		0.50		mg/L			05/06/24 16:31	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.3		0.50		mg/L			05/06/24 16:31	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.3		0.50		mg/L			05/06/24 16:31	1

Client Sample ID: CH-CCR-FD03-0424

Lab Sample ID: 550-217592-30

Date Collected: 04/22/24 16:20

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2200	D2	200		mg/L			04/29/24 18:52	100
Fluoride	ND		0.40		mg/L			04/29/24 18:34	1
Sulfate	2600	D2	200		mg/L			04/29/24 18:52	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.8		0.050		mg/L		04/29/24 09:05	05/07/24 04:28	1
Calcium	820		2.0		mg/L		04/29/24 09:05	05/07/24 04:28	1
Iron	0.21		0.10		mg/L		04/29/24 09:05	05/07/24 04:28	1
Magnesium	160		2.0		mg/L		04/29/24 09:05	05/07/24 04:28	1
Manganese	1.0		0.010		mg/L		04/29/24 09:05	05/07/24 04:28	1
Potassium	7.6		0.50		mg/L		04/29/24 09:05	05/07/24 04:28	1
Sodium	2100		50		mg/L		04/29/24 09:05	05/08/24 14:36	100
Beryllium	ND		0.10		mg/L		04/29/24 09:05	05/08/24 14:36	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	280	T5	20		ug/L		05/01/24 08:30	05/09/24 17:51	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:16	05/02/24 16:51	1
Arsenic	0.0028		0.00050		mg/L		04/29/24 08:16	05/02/24 16:51	1
Barium	0.010		0.00050		mg/L		04/29/24 08:16	05/02/24 16:51	1
Cadmium	0.00016		0.00010		mg/L		04/29/24 08:16	05/02/24 16:51	1
Chromium	0.0030		0.0010		mg/L		04/29/24 08:16	05/02/24 16:51	1
Cobalt	0.053		0.00050		mg/L		04/29/24 08:16	05/02/24 16:51	1
Lead	0.00050		0.00050		mg/L		04/29/24 08:16	05/02/24 16:51	1
Molybdenum	0.013		0.00050		mg/L		04/29/24 08:16	05/02/24 16:51	1

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

Job ID: 550-217592-1

Client Sample ID: CH-CCR-FD03-0424
Date Collected: 04/22/24 16:20
Date Received: 04/26/24 10:48

Lab Sample ID: 550-217592-30
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**0.0014**		0.00050		mg/L		04/29/24 08:16	05/07/24 13:38	1
Thallium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:51	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:42	05/08/24 16:27	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/02/24 12:30	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/09/24 15:25	1
Alkalinity as CaCO3 (SM 2320B)	**99**		6.0		mg/L			04/30/24 17:09	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 17:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**99**		6.0		mg/L			04/30/24 17:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 17:09	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 17:09	1
Total Dissolved Solids (SM 2540C)	**7700**	**B1 H1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/03/24 15:40	1
Temperature (SM 4500 H+ B)	**13.9**	**H5 T5**	0.1		Degrees C			05/03/24 15:40	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-319964/2
Matrix: Water
Analysis Batch: 319964

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			04/29/24 12:49	1
Fluoride	ND		0.40		mg/L			04/29/24 12:49	1
Sulfate	ND		2.0		mg/L			04/29/24 12:49	1

Lab Sample ID: LCS 550-319964/5
Matrix: Water
Analysis Batch: 319964

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.6		mg/L		98	90 - 110		
Fluoride			4.00	3.98		mg/L		100	90 - 110		
Sulfate			20.0	19.5		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-319964/6
Matrix: Water
Analysis Batch: 319964

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.6		mg/L		98	90 - 110	0	20
Fluoride			4.00	3.98		mg/L		100	90 - 110	0	20
Sulfate			20.0	19.5		mg/L		98	90 - 110	0	20

Lab Sample ID: 550-217493-J-1 MS ^5
Matrix: Water
Analysis Batch: 319964

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	200	D1	100	304	D2	mg/L		104	80 - 120		
Fluoride	ND	D1 D5	20.0	19.6	D2	mg/L		98	80 - 120		
Sulfate	4100	E2 M3 D1	100	4090	D2 E2 M3	mg/L		-30	80 - 120		

Lab Sample ID: 550-217493-J-1 MSD ^5
Matrix: Water
Analysis Batch: 319964

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	200	D1	100	304	D2	mg/L		104	80 - 120	0	20
Fluoride	ND	D1 D5	20.0	19.9	D2	mg/L		99	80 - 120	2	20
Sulfate	4100	E2 M3 D1	100	4090	D2 E2 M3	mg/L		-37	80 - 120	0	20

Lab Sample ID: MB 550-319974/2
Matrix: Water
Analysis Batch: 319974

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			04/29/24 12:39	1
Fluoride	ND		0.40		mg/L			04/29/24 12:39	1
Sulfate	ND		2.0		mg/L			04/29/24 12:39	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-319974/5
Matrix: Water
Analysis Batch: 319974

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.2		mg/L		96	90 - 110		
Fluoride			4.00	3.98		mg/L		100	90 - 110		
Sulfate			20.0	19.3		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-319974/6
Matrix: Water
Analysis Batch: 319974

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.3		mg/L		97	90 - 110	1	20
Fluoride			4.00	4.03		mg/L		101	90 - 110	1	20
Sulfate			20.0	19.3		mg/L		96	90 - 110	0	20

Lab Sample ID: 550-217592-20 MS
Matrix: Water
Analysis Batch: 319974

Client Sample ID: CH-CCR-W304-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2400	D2	2000	4490	D2	mg/L		103	80 - 120		
Fluoride	ND	D1 D5	400	397	D2	mg/L		99	80 - 120		
Sulfate	2300	D2	2000	4330	D2	mg/L		101	80 - 120		

Lab Sample ID: 550-217592-20 MSD
Matrix: Water
Analysis Batch: 319974

Client Sample ID: CH-CCR-W304-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2400	D2	2000	4460	D2	mg/L		101	80 - 120	1	20
Fluoride	ND	D1 D5	400	397	D2	mg/L		99	80 - 120	0	20
Sulfate	2300	D2	2000	4250	D2	mg/L		97	80 - 120	2	20

Lab Sample ID: MB 550-320156/35
Matrix: Water
Analysis Batch: 320156

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/02/24 04:37	1
Fluoride	ND		0.40		mg/L			05/02/24 04:37	1
Sulfate	ND		2.0		mg/L			05/02/24 04:37	1

Lab Sample ID: LCS 550-320156/36
Matrix: Water
Analysis Batch: 320156

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	20.5		mg/L		103	90 - 110		
Fluoride			4.00	4.27		mg/L		107	90 - 110		
Sulfate			20.0	19.4		mg/L		97	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-320156/37
Matrix: Water
Analysis Batch: 320156

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	20.5		mg/L		102	90 - 110	0	20
Fluoride			4.00	4.28		mg/L		107	90 - 110	0	20
Sulfate			20.0	19.4		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-217719-A-2 MS
Matrix: Water
Analysis Batch: 320156

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	230	E2 M3	20.0	236	E2 M3	mg/L		35	80 - 120		
Fluoride	ND		4.00	3.90		mg/L		88	80 - 120		
Sulfate	280	E2 M3	20.0	288	E2 M3	mg/L		48	80 - 120		

Lab Sample ID: 550-217719-A-2 MSD
Matrix: Water
Analysis Batch: 320156

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	230	E2 M3	20.0	236	E2 M3	mg/L		35	80 - 120	0	20
Fluoride	ND		4.00	3.86		mg/L		87	80 - 120	1	20
Sulfate	280	E2 M3	20.0	287	E2 M3	mg/L		41	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-319930/1-A
Matrix: Water
Analysis Batch: 320440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319930

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		04/29/24 08:59	05/07/24 04:41	1
Calcium	ND		2.0		mg/L		04/29/24 08:59	05/07/24 04:41	1
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 04:41	1
Magnesium	ND		2.0		mg/L		04/29/24 08:59	05/07/24 04:41	1
Manganese	ND		0.010		mg/L		04/29/24 08:59	05/07/24 04:41	1
Potassium	ND		0.50		mg/L		04/29/24 08:59	05/07/24 04:41	1

Lab Sample ID: MB 550-319930/1-A
Matrix: Water
Analysis Batch: 320547

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319930

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		0.50		mg/L		04/29/24 08:59	05/08/24 14:49	1
Beryllium	ND		0.0010		mg/L		04/29/24 08:59	05/08/24 14:49	1

Lab Sample ID: LCS 550-319930/2-A
Matrix: Water
Analysis Batch: 320440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319930

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.16		mg/L		116	85 - 115		

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

Lab Sample ID: LCS 550-319930/2-A
Matrix: Water
Analysis Batch: 320440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	21.0	24.7		mg/L		117	85 - 115
Iron	1.00	1.17		mg/L		117	85 - 115
Magnesium	21.0	24.6		mg/L		117	85 - 115
Manganese	1.00	1.15		mg/L		115	85 - 115
Potassium	20.0	23.2		mg/L		116	85 - 115

Lab Sample ID: LCS 550-319930/2-A
Matrix: Water
Analysis Batch: 320547

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	20.0	20.2		mg/L		101	85 - 115
Beryllium	1.00	1.08		mg/L		108	85 - 115

Lab Sample ID: LCSD 550-319930/3-A
Matrix: Water
Analysis Batch: 320440

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319930

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.00	1.16		mg/L		116	85 - 115	0	20
Calcium	21.0	24.5		mg/L		117	85 - 115	0	20
Iron	1.00	1.15		mg/L		115	85 - 115	1	20
Magnesium	21.0	24.4		mg/L		116	85 - 115	1	20
Manganese	1.00	1.15		mg/L		115	85 - 115	0	20
Potassium	20.0	23.0		mg/L		115	85 - 115	1	20

Lab Sample ID: LCSD 550-319930/3-A
Matrix: Water
Analysis Batch: 320547

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319930

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	20.0	19.8		mg/L		99	85 - 115	2	20
Beryllium	1.00	1.06		mg/L		106	85 - 115	2	20

Lab Sample ID: 550-217589-E-2-B MS
Matrix: Water
Analysis Batch: 320440

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 319930

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	10		1.00	11.2	M3	mg/L		108	70 - 130
Calcium	760		21.0	775	M3	mg/L		79	70 - 130
Iron	1.1		1.00	2.29		mg/L		116	70 - 130
Magnesium	300		21.0	317	M3	mg/L		91	70 - 130
Manganese	0.32		1.00	1.41		mg/L		109	70 - 130
Potassium	35	M1	20.0	63.5	M1	mg/L		144	70 - 130

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

Lab Sample ID: 550-217589-E-2-B MS ^100 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320547 — **Prep Batch: 319930**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	1800	M3	20.0	2140	M3	mg/L		1612	70 - 130
Beryllium	ND		1.00	1.26		mg/L		126	70 - 130

Lab Sample ID: 550-217589-E-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320440 — **Prep Batch: 319930**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	10		1.00	11.1	M3	mg/L		98	70 - 130	1	20
Calcium	760		21.0	774	M3	mg/L		74	70 - 130	0	20
Iron	1.1		1.00	2.39		mg/L		126	70 - 130	4	20
Magnesium	300		21.0	320	M3	mg/L		107	70 - 130	1	20
Manganese	0.32		1.00	1.39		mg/L		107	70 - 130	1	20
Potassium	35	M1	20.0	65.7	M1	mg/L		155	70 - 130	3	20

Lab Sample ID: 550-217589-E-2-C MSD ^100 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320547 — **Prep Batch: 319930**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	1800	M3	20.0	1800	M3	mg/L		-68	70 - 130	17	20
Beryllium	ND		1.00	1.07		mg/L		107	70 - 130	17	20

Lab Sample ID: MB 550-319932/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320439 — **Prep Batch: 319932**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		04/29/24 09:05	05/07/24 02:29	1
Calcium	ND		2.0		mg/L		04/29/24 09:05	05/07/24 02:29	1
Iron	ND		0.10		mg/L		04/29/24 09:05	05/07/24 02:29	1
Magnesium	ND		2.0		mg/L		04/29/24 09:05	05/07/24 02:29	1
Manganese	ND		0.010		mg/L		04/29/24 09:05	05/07/24 02:29	1
Potassium	ND		0.50		mg/L		04/29/24 09:05	05/07/24 02:29	1

Lab Sample ID: MB 550-319932/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320539 — **Prep Batch: 319932**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		0.50		mg/L		04/29/24 09:05	05/08/24 13:55	1
Beryllium	ND		0.0010		mg/L		04/29/24 09:05	05/08/24 13:55	1

Lab Sample ID: LCS 550-319932/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320439 — **Prep Batch: 319932**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	1.10		mg/L		110	85 - 115
Calcium	21.0	23.0		mg/L		110	85 - 115

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

Lab Sample ID: LCS 550-319932/2-A
Matrix: Water
Analysis Batch: 320439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	1.00	1.08		mg/L		108	85 - 115
Magnesium	21.0	23.1		mg/L		110	85 - 115
Manganese	1.00	1.10		mg/L		110	85 - 115
Potassium	20.0	21.6		mg/L		108	85 - 115

Lab Sample ID: LCS 550-319932/2-A
Matrix: Water
Analysis Batch: 320539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	20.0	20.4		mg/L		102	85 - 115
Beryllium	1.00	1.09		mg/L		109	85 - 115

Lab Sample ID: LCSD 550-319932/3-A
Matrix: Water
Analysis Batch: 320439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.00	1.12		mg/L		112	85 - 115	2	20
Calcium	21.0	23.0		mg/L		110	85 - 115	0	20
Iron	1.00	1.09		mg/L		109	85 - 115	1	20
Magnesium	21.0	23.4		mg/L		111	85 - 115	1	20
Manganese	1.00	1.12		mg/L		112	85 - 115	2	20
Potassium	20.0	21.9		mg/L		110	85 - 115	2	20

Lab Sample ID: LCSD 550-319932/3-A
Matrix: Water
Analysis Batch: 320539

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	20.0	20.3		mg/L		101	85 - 115	1	20
Beryllium	1.00	1.08		mg/L		108	85 - 115	1	20

Lab Sample ID: 550-217592-18 MS
Matrix: Water
Analysis Batch: 320439

Client Sample ID: CH-CCR-W303-0424
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	4.1		1.00	5.17	M3	mg/L		102	70 - 130
Calcium	710	M3	21.0	691	M3	mg/L		-68	70 - 130
Iron	0.21		1.00	1.39		mg/L		118	70 - 130
Magnesium	250	M3	21.0	265	M3	mg/L		56	70 - 130
Manganese	0.26		1.00	1.35		mg/L		109	70 - 130
Potassium	15	M1	20.0	46.6	M1	mg/L		160	70 - 130

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

Lab Sample ID: 550-217592-18 MS
Matrix: Water
Analysis Batch: 320539

Client Sample ID: CH-CCR-W303-0424
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	2600	M3 R4	20.0	3260	M3	mg/L		3248	70 - 130
Beryllium	ND	M1 R4	1.00	1.56	M1	mg/L		156	70 - 130

Lab Sample ID: 550-217592-18 MSD
Matrix: Water
Analysis Batch: 320439

Client Sample ID: CH-CCR-W303-0424
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	4.1		1.00	5.18	M3	mg/L		103	70 - 130	0	20
Calcium	710	M3	21.0	709	M3	mg/L		14	70 - 130	2	20
Iron	0.21		1.00	1.43		mg/L		123	70 - 130	3	20
Magnesium	250	M3	21.0	272	M3	mg/L		90	70 - 130	3	20
Manganese	0.26		1.00	1.39		mg/L		113	70 - 130	3	20
Potassium	15	M1	20.0	45.7	M1	mg/L		156	70 - 130	2	20

Lab Sample ID: 550-217592-18 MSD
Matrix: Water
Analysis Batch: 320539

Client Sample ID: CH-CCR-W303-0424
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	2600	M3 R4	20.0	2600	M3 R4	mg/L		-41	70 - 130	22	20
Beryllium	ND	M1 R4	1.00	1.24	R4	mg/L		124	70 - 130	23	20

Lab Sample ID: MB 280-651479/1-A
Matrix: Water
Analysis Batch: 652329

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 651479

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20		ug/L		05/01/24 08:30	05/06/24 13:49	1

Lab Sample ID: LCS 280-651479/2-A
Matrix: Water
Analysis Batch: 652329

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 651479

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium			1000	991		ug/L		99	90 - 112

Lab Sample ID: LCSD 280-651479/16-A
Matrix: Water
Analysis Batch: 652329

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 651479

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium			1000	968		ug/L		97	90 - 112	2	20

Lab Sample ID: MB 280-651506/1-A
Matrix: Water
Analysis Batch: 652948

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 651506

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20		ug/L		05/01/24 08:30	05/09/24 16:48	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: LCS 280-651506/2-A
Matrix: Water
Analysis Batch: 652948

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 651506

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			1000	1030		ug/L		103	90 - 112		

Lab Sample ID: 550-217592-18 MS
Matrix: Water
Analysis Batch: 652948

Client Sample ID: CH-CCR-W303-0424
Prep Type: Total Recoverable
Prep Batch: 651506

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium	320	T5	1000	1430		ug/L		111	70 - 130		

Lab Sample ID: 550-217592-18 MSD
Matrix: Water
Analysis Batch: 652948

Client Sample ID: CH-CCR-W303-0424
Prep Type: Total Recoverable
Prep Batch: 651506

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	320	T5	1000	1410		ug/L		109	70 - 130	1	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-319916/1-A
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319916

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 13:49	1
Arsenic	ND		0.50		ug/L		04/29/24 08:10	05/02/24 13:49	1
Barium	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 13:49	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 13:49	1
Chromium	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 13:49	1
Cobalt	ND		0.50		ug/L		04/29/24 08:10	05/02/24 13:49	1
Lead	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 13:49	1
Molybdenum	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 13:49	1
Selenium	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 13:49	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 13:49	1

Lab Sample ID: MB 550-319916/1-A
Matrix: Water
Analysis Batch: 320507

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319916

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.00050		mg/L		04/29/24 08:10	05/07/24 12:46	1

Lab Sample ID: LCS 550-319916/2-A
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319916

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.106		mg/L		106	85 - 115		
Arsenic			100	102		ug/L		102	85 - 115		
Barium			0.100	0.0595	L4	mg/L		60	85 - 115		
Cadmium			0.100	0.104		mg/L		104	85 - 115		

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

Lab Sample ID: LCS 550-319916/2-A
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.100	0.105		mg/L		105	85 - 115
Cobalt	100	106		ug/L		106	85 - 115
Lead	0.100	0.0837	L4	mg/L		84	85 - 115
Molybdenum	0.100	0.111		mg/L		111	85 - 115
Selenium	0.100	0.0998		mg/L		100	85 - 115
Thallium	0.100	0.0965		mg/L		97	85 - 115

Lab Sample ID: LCS 550-319916/2-A
Matrix: Water
Analysis Batch: 320507

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	0.100	0.108		mg/L		108	85 - 115

Lab Sample ID: LCSD 550-319916/3-A
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319916

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.105		mg/L		105	85 - 115	1	20
Arsenic	100	102		ug/L		102	85 - 115	0	20
Barium	0.100	0.0589	L4	mg/L		59	85 - 115	1	20
Cadmium	0.100	0.103		mg/L		103	85 - 115	1	20
Chromium	0.100	0.106		mg/L		106	85 - 115	1	20
Cobalt	100	107		ug/L		107	85 - 115	0	20
Lead	0.100	0.0836	L4	mg/L		84	85 - 115	0	20
Molybdenum	0.100	0.107		mg/L		107	85 - 115	4	20
Selenium	0.100	0.0991		mg/L		99	85 - 115	1	20
Thallium	0.100	0.0964		mg/L		96	85 - 115	0	20

Lab Sample ID: LCSD 550-319916/3-A
Matrix: Water
Analysis Batch: 320507

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319916

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium	0.100	0.108		mg/L		108	85 - 115	0	20

Lab Sample ID: MB 550-319917/1-A
Matrix: Water
Analysis Batch: 320295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319917

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		04/29/24 08:16	05/02/24 16:03	1
Arsenic	ND		0.00050	mg/L		04/29/24 08:16	05/02/24 16:03	1
Barium	ND		0.00050	mg/L		04/29/24 08:16	05/02/24 16:03	1
Cadmium	ND		0.00010	mg/L		04/29/24 08:16	05/02/24 16:03	1
Chromium	ND		0.0010	mg/L		04/29/24 08:16	05/02/24 16:03	1
Cobalt	ND		0.00050	mg/L		04/29/24 08:16	05/02/24 16:03	1
Lead	ND		0.00050	mg/L		04/29/24 08:16	05/02/24 16:03	1
Molybdenum	ND		0.00050	mg/L		04/29/24 08:16	05/02/24 16:03	1

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

Lab Sample ID: MB 550-319917/1-A
Matrix: Water
Analysis Batch: 320295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319917

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.00010		mg/L		04/29/24 08:16	05/02/24 16:03	1

Lab Sample ID: MB 550-319917/1-A
Matrix: Water
Analysis Batch: 320508

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319917

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:16	05/07/24 13:10	1
Arsenic	ND		0.00050		mg/L		04/29/24 08:16	05/07/24 13:10	1
Barium	ND		0.00050		mg/L		04/29/24 08:16	05/07/24 13:10	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:16	05/07/24 13:10	1
Chromium	ND		0.0010		mg/L		04/29/24 08:16	05/07/24 13:10	1
Cobalt	ND		0.00050		mg/L		04/29/24 08:16	05/07/24 13:10	1
Lead	ND		0.00050		mg/L		04/29/24 08:16	05/07/24 13:10	1
Molybdenum	ND		0.00050		mg/L		04/29/24 08:16	05/07/24 13:10	1
Selenium	ND		0.00050		mg/L		04/29/24 08:16	05/07/24 13:10	1
Thallium	ND		0.00010		mg/L		04/29/24 08:16	05/07/24 13:10	1

Lab Sample ID: LCS 550-319917/2-A
Matrix: Water
Analysis Batch: 320295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319917

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.105		mg/L		105	85 - 115		
Arsenic			0.100	0.103		mg/L		103	85 - 115		
Barium			0.100	0.102		mg/L		102	85 - 115		
Cadmium			0.100	0.102		mg/L		102	85 - 115		
Chromium			0.100	0.103		mg/L		103	85 - 115		
Cobalt			0.100	0.105		mg/L		105	85 - 115		
Lead			0.100	0.0930		mg/L		93	85 - 115		
Molybdenum			0.100	0.105		mg/L		105	85 - 115		
Thallium			0.100	0.0979		mg/L		98	85 - 115		

Lab Sample ID: LCS 550-319917/2-A
Matrix: Water
Analysis Batch: 320508

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319917

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.109		mg/L		109	85 - 115		
Arsenic			0.100	0.110		mg/L		110	85 - 115		
Barium			0.100	0.106		mg/L		106	85 - 115		
Cadmium			0.100	0.108		mg/L		108	85 - 115		
Chromium			0.100	0.109		mg/L		109	85 - 115		
Cobalt			0.100	0.110		mg/L		110	85 - 115		
Lead			0.100	0.106		mg/L		106	85 - 115		
Molybdenum			0.100	0.109		mg/L		109	85 - 115		
Selenium			0.100	0.108		mg/L		108	85 - 115		
Thallium			0.100	0.111		mg/L		111	85 - 115		

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

Lab Sample ID: LCSD 550-319917/3-A
Matrix: Water
Analysis Batch: 320295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319917

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.106		mg/L		106	85 - 115	1	20
Arsenic			0.100	0.103		mg/L		103	85 - 115	1	20
Barium			0.100	0.0930		mg/L		93	85 - 115	9	20
Cadmium			0.100	0.105		mg/L		105	85 - 115	2	20
Chromium			0.100	0.104		mg/L		104	85 - 115	1	20
Cobalt			0.100	0.106		mg/L		106	85 - 115	1	20
Lead			0.100	0.0920		mg/L		92	85 - 115	1	20
Molybdenum			0.100	0.108		mg/L		108	85 - 115	3	20
Thallium			0.100	0.0989		mg/L		99	85 - 115	1	20

Lab Sample ID: LCSD 550-319917/3-A
Matrix: Water
Analysis Batch: 320508

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319917

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.112		mg/L		112	85 - 115	2	20
Arsenic			0.100	0.112		mg/L		112	85 - 115	2	20
Barium			0.100	0.0977		mg/L		98	85 - 115	8	20
Cadmium			0.100	0.113		mg/L		113	85 - 115	4	20
Chromium			0.100	0.110		mg/L		110	85 - 115	1	20
Cobalt			0.100	0.112		mg/L		112	85 - 115	2	20
Lead			0.100	0.107		mg/L		107	85 - 115	1	20
Molybdenum			0.100	0.112		mg/L		112	85 - 115	2	20
Selenium			0.100	0.110		mg/L		110	85 - 115	1	20
Thallium			0.100	0.115		mg/L		115	85 - 115	4	20

Lab Sample ID: 550-217592-16 MS
Matrix: Water
Analysis Batch: 320508

Client Sample ID: CH-CCR-W301-0424
Prep Type: Total/NA
Prep Batch: 319917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0052		0.100	0.121		mg/L		116	70 - 130
Chromium	0.021		0.100	0.129		mg/L		109	70 - 130
Cobalt	0.024		0.100	0.130		mg/L		107	70 - 130
Lead	ND		0.100	0.102		mg/L		102	70 - 130
Selenium	0.0058		0.100	0.120		mg/L		114	70 - 130
Thallium	ND		0.100	0.104		mg/L		104	70 - 130

Lab Sample ID: 550-217592-16 MSD
Matrix: Water
Analysis Batch: 320508

Client Sample ID: CH-CCR-W301-0424
Prep Type: Total/NA
Prep Batch: 319917

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.0052		0.100	0.120		mg/L		115	70 - 130	1	20
Chromium	0.021		0.100	0.131		mg/L		110	70 - 130	1	20
Cobalt	0.024		0.100	0.131		mg/L		107	70 - 130	0	20
Lead	ND		0.100	0.102		mg/L		102	70 - 130	0	20
Selenium	0.0058		0.100	0.120		mg/L		114	70 - 130	0	20
Thallium	ND		0.100	0.101		mg/L		101	70 - 130	3	20

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

Lab Sample ID: 550-217589-E-1-A MS
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 319916

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND	M2	0.100	0.104	M2	mg/L		32	70 - 130
Arsenic	3.5		100	114		ug/L		110	70 - 130
Barium	14	L4 M3	0.100	0.0795	M3	mg/L		-1343	70 - 130
Cadmium	ND	M2	0.100	0.0906	M2	mg/L		41	70 - 130
Chromium	ND		0.100	0.106		mg/L		106	70 - 130
Cobalt	2.3		100	102		ug/L		100	70 - 130
Lead	ND	L4	0.100	0.0748		mg/L		75	70 - 130
Molybdenum	100	M3	0.100	0.208	M3	mg/L		-1011	70 - 130
Selenium	1.2	M3	0.100	0.0881	M3	mg/L		-1155	70 - 130
Thallium	ND	M2	0.100	0.0860	M2	mg/L		39	70 - 130

Lab Sample ID: 550-217589-E-1-B MSD
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 319916

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	M2	0.100	0.105	M2	mg/L		33	70 - 130	1	20
Arsenic	3.5		100	114		ug/L		110	70 - 130	0	20
Barium	14	L4 M3	0.100	0.0937	M3	mg/L		-1342	70 - 130	16	20
Cadmium	ND	M2	0.100	0.0909	M2	mg/L		41	70 - 130	0	20
Chromium	ND		0.100	0.108		mg/L		108	70 - 130	2	20
Cobalt	2.3		100	102		ug/L		100	70 - 130	0	20
Lead	ND	L4	0.100	0.0753		mg/L		75	70 - 130	1	20
Molybdenum	100	M3	0.100	0.207	M3	mg/L		-1011	70 - 130	0	20
Selenium	1.2	M3	0.100	0.0880	M3	mg/L		-1155	70 - 130	0	20
Thallium	ND	M2	0.100	0.0836	M2	mg/L		37	70 - 130	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-319946/1-A
Matrix: Water
Analysis Batch: 319976

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319946

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:01	1

Lab Sample ID: LCS 550-319946/2-A
Matrix: Water
Analysis Batch: 319976

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319946

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury			0.00500	0.00462		mg/L		92	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 550-319946/3-A
Matrix: Water
Analysis Batch: 319976

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319946

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00473		mg/L		95	85 - 115	2	20

Lab Sample ID: 550-217554-A-1-C MSD
Matrix: Water
Analysis Batch: 319976

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 319946

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00555		mg/L		111	70 - 130	1	20

Lab Sample ID: 550-217592-14 MS
Matrix: Water
Analysis Batch: 319976

Client Sample ID: CH-CCR-MW74M-0424
Prep Type: Total/NA
Prep Batch: 319946

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00500	0.00585		mg/L		117	70 - 130

Lab Sample ID: MB 550-320383/1-A
Matrix: Water
Analysis Batch: 320556

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320383

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:42	05/08/24 16:08	1

Lab Sample ID: LCS 550-320383/2-A
Matrix: Water
Analysis Batch: 320556

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320383

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury			0.00500	0.00456		mg/L		91	85 - 115

Lab Sample ID: LCSD 550-320383/3-A
Matrix: Water
Analysis Batch: 320556

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320383

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00483		mg/L		97	85 - 115	6	20

Lab Sample ID: 550-217592-28 MS
Matrix: Water
Analysis Batch: 320556

Client Sample ID: CH-CCR-W309-0424
Prep Type: Total/NA
Prep Batch: 320383

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND	M1	0.00500	0.00659	M1	mg/L		132	70 - 130

Lab Sample ID: 550-217592-28 MSD
Matrix: Water
Analysis Batch: 320556

Client Sample ID: CH-CCR-W309-0424
Prep Type: Total/NA
Prep Batch: 320383

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND	M1	0.00500	0.00640		mg/L		128	70 - 130	3	20

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-320157/60
Matrix: Water
Analysis Batch: 320157

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			05/01/24 14:28	1

Lab Sample ID: LCS 550-320157/61
Matrix: Water
Analysis Batch: 320157

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	1.02		mg/L		102	90 - 110		

Lab Sample ID: LCSD 550-320157/62
Matrix: Water
Analysis Batch: 320157

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	1.01		mg/L		101	90 - 110	1	20

Lab Sample ID: MB 550-320229/21
Matrix: Water
Analysis Batch: 320229

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			05/02/24 12:15	1

Lab Sample ID: LCS 550-320229/22
Matrix: Water
Analysis Batch: 320229

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	1.06		mg/L		106	90 - 110		

Lab Sample ID: LCSD 550-320229/23
Matrix: Water
Analysis Batch: 320229

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	1.05		mg/L		105	90 - 110	1	20

Lab Sample ID: 550-217592-20 MS
Matrix: Water
Analysis Batch: 320229

Client Sample ID: CH-CCR-W304-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	ND		1.00	1.09		mg/L		109	90 - 110		

Lab Sample ID: 550-217592-20 MSD
Matrix: Water
Analysis Batch: 320229

Client Sample ID: CH-CCR-W304-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	ND		1.00	1.09		mg/L		109	90 - 110	0	20

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-320560/21
Matrix: Water
Analysis Batch: 320560

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			05/08/24 11:38	1

Lab Sample ID: LCS 550-320560/22
Matrix: Water
Analysis Batch: 320560

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.988		mg/L		99	90 - 110		

Lab Sample ID: LCSD 550-320560/23
Matrix: Water
Analysis Batch: 320560

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	1.02		mg/L		102	90 - 110	3	20

Lab Sample ID: 550-217592-6 MS
Matrix: Water
Analysis Batch: 320560

Client Sample ID: CH-CCR-M55A-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	ND		1.00	1.08		mg/L		108	90 - 110		

Lab Sample ID: 550-217592-6 MSD
Matrix: Water
Analysis Batch: 320560

Client Sample ID: CH-CCR-M55A-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	ND		1.00	1.07		mg/L		107	90 - 110	1	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-652685/57
Matrix: Water
Analysis Batch: 652685

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			05/08/24 17:22	1

Lab Sample ID: MB 280-652685/94
Matrix: Water
Analysis Batch: 652685

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			05/08/24 18:36	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 280-652685/55
Matrix: Water
Analysis Batch: 652685

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	1.00	0.969		mg/L		97	90 - 110

Lab Sample ID: LCS 280-652685/92
Matrix: Water
Analysis Batch: 652685

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	1.00	0.953		mg/L		95	90 - 110

Lab Sample ID: LCSD 280-652685/56
Matrix: Water
Analysis Batch: 652685

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	1.00	0.969		mg/L		97	90 - 110	0	10

Lab Sample ID: LCSD 280-652685/93
Matrix: Water
Analysis Batch: 652685

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	1.00	0.974		mg/L		97	90 - 110	2	10

Lab Sample ID: 550-217592-2 MS
Matrix: Water
Analysis Batch: 652685

Client Sample ID: CH-CCR-M52A-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	ND		2.00	1.85		mg/L		92	90 - 110

Lab Sample ID: 550-217592-2 MSD
Matrix: Water
Analysis Batch: 652685

Client Sample ID: CH-CCR-M52A-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		2.00	1.90		mg/L		95	90 - 110	3	10

Lab Sample ID: 550-217592-22 MS
Matrix: Water
Analysis Batch: 652685

Client Sample ID: CH-CCR-W306-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	ND		2.00	2.03		mg/L		102	90 - 110

Lab Sample ID: 550-217592-22 MSD
Matrix: Water
Analysis Batch: 652685

Client Sample ID: CH-CCR-W306-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		2.00	2.03		mg/L		102	90 - 110	0	10

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-652869/20
Matrix: Water
Analysis Batch: 652869

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			05/09/24 15:13	1

Lab Sample ID: LCS 280-652869/18
Matrix: Water
Analysis Batch: 652869

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			1.00	1.03		mg/L		103	90 - 110		

Lab Sample ID: LCSD 280-652869/19
Matrix: Water
Analysis Batch: 652869

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			1.00	1.02		mg/L		102	90 - 110	1	10

Lab Sample ID: 550-217592-24 MS
Matrix: Water
Analysis Batch: 652869

Client Sample ID: CH-CCR-W307R-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	0.16		2.00	2.01		mg/L		93	90 - 110		

Lab Sample ID: 550-217592-24 MSD
Matrix: Water
Analysis Batch: 652869

Client Sample ID: CH-CCR-W307R-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.16		2.00	2.07		mg/L		95	90 - 110	3	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-320078/4
Matrix: Water
Analysis Batch: 320078

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			04/30/24 13:13	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1

Lab Sample ID: LCS 550-320078/3
Matrix: Water
Analysis Batch: 320078

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	242		mg/L		97	90 - 110		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-320078/17
Matrix: Water
Analysis Batch: 320078

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	238		mg/L		95	90 - 110	2	20

Lab Sample ID: 550-217445-H-2 DU
Matrix: Water
Analysis Batch: 320078

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	64			64.4		mg/L				0.4	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	64			64.4		mg/L				0.4	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Lab Sample ID: MB 550-320223/4
Matrix: Water
Analysis Batch: 320223

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			05/02/24 09:07	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			05/02/24 09:07	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/02/24 09:07	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/02/24 09:07	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			05/02/24 09:07	1

Lab Sample ID: LCS 550-320223/3
Matrix: Water
Analysis Batch: 320223

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	240		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-320223/14
Matrix: Water
Analysis Batch: 320223

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	239		mg/L		96	90 - 110	0	20

Lab Sample ID: 550-217578-B-4 DU
Matrix: Water
Analysis Batch: 320223

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 550-320334/4
Matrix: Water
Analysis Batch: 320334

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			05/03/24 09:24	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			05/03/24 09:24	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/03/24 09:24	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/03/24 09:24	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			05/03/24 09:24	1

Lab Sample ID: LCS 550-320334/3
Matrix: Water
Analysis Batch: 320334

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	243		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320334/13
Matrix: Water
Analysis Batch: 320334

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	243		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-217471-H-18 DU
Matrix: Water
Analysis Batch: 320334

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	370			368		mg/L				0.2	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	370			368		mg/L				0.2	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

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

Lab Sample ID: MB 550-320055/1
Matrix: Water
Analysis Batch: 320055

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			04/30/24 14:05	1

Lab Sample ID: LCS 550-320055/2
Matrix: Water
Analysis Batch: 320055

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	972		mg/L		97	90 - 110		

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

Lab Sample ID: LCSD 550-320055/3
Matrix: Water
Analysis Batch: 320055

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	970		mg/L		97	90 - 110	0	10

Lab Sample ID: 550-217577-A-26 DU
Matrix: Water
Analysis Batch: 320055

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	5800	B1		5340		mg/L				9	10

Lab Sample ID: 550-217592-20 DU
Matrix: Water
Analysis Batch: 320055

Client Sample ID: CH-CCR-W304-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	8100	H1 B1		8340		mg/L				3	10

Lab Sample ID: MB 550-320144/1
Matrix: Water
Analysis Batch: 320144

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			05/01/24 15:31	1

Lab Sample ID: LCS 550-320144/2
Matrix: Water
Analysis Batch: 320144

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	972		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320144/3
Matrix: Water
Analysis Batch: 320144

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	964		mg/L		96	90 - 110	1	10

Lab Sample ID: 550-217578-A-1 DU
Matrix: Water
Analysis Batch: 320144

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	6000			6260		mg/L				4	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-320161/1
Matrix: Water
Analysis Batch: 320161

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.6	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-320161/13
Matrix: Water
Analysis Batch: 320161

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.7	98.5 - 101.5		

Lab Sample ID: 550-217481-A-1 DU
Matrix: Water
Analysis Batch: 320161

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.6			7.6		SU				0.3	5
Temperature	13.1			14.1		Degrees C				7	

Lab Sample ID: LCSSRM 550-320321/1
Matrix: Water
Analysis Batch: 320321

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.4	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-320321/13
Matrix: Water
Analysis Batch: 320321

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.9	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-320321/25
Matrix: Water
Analysis Batch: 320321

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.0	98.5 - 101.5		

Lab Sample ID: 550-217592-12 DU
Matrix: Water
Analysis Batch: 320321

Client Sample ID: CH-CCR-MW73A-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.3	H5		7.3		SU				0	5
Temperature	9.4	H5 T5		9.4		Degrees C				0	

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 550-320204/6
Matrix: Water
Analysis Batch: 320204

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			05/01/24 18:59	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			05/01/24 18:59	1
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			05/01/24 18:59	1

Lab Sample ID: 550-217589-B-1 MS
Matrix: Water
Analysis Batch: 320204

Client Sample ID: Matrix Spike
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	3.5		20.0	23.5		mg/L		100	90 - 110		
Dissolved Organic Carbon - Duplicate	3.5		20.0	23.5		mg/L		100	90 - 110		
Dissolved Organic Carbon - Quad	3.5		20.0	23.5		mg/L		100	90 - 110		

Lab Sample ID: 550-217589-B-1 MSD
Matrix: Water
Analysis Batch: 320204

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	3.5		20.0	23.8		mg/L		102	90 - 110	1	20
Dissolved Organic Carbon - Duplicate	3.5		20.0	23.8		mg/L		102	90 - 110	1	20
Dissolved Organic Carbon - Quad	3.5		20.0	23.8		mg/L		102	90 - 110	1	20

Lab Sample ID: MB 550-320448/6
Matrix: Water
Analysis Batch: 320448

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			05/06/24 13:44	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			05/06/24 13:44	1
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			05/06/24 13:44	1

Lab Sample ID: LCS 550-320448/7
Matrix: Water
Analysis Batch: 320448

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	19.1		mg/L		96	90 - 110		
Dissolved Organic Carbon - Duplicate			20.0	19.1		mg/L		96	90 - 110		
Dissolved Organic Carbon - Quad			20.0	19.1		mg/L		96	90 - 110		

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCSD 550-320448/8
Matrix: Water
Analysis Batch: 320448

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.1		mg/L		95	90 - 110	0	20
Dissolved Organic Carbon - Duplicate			20.0	19.1		mg/L		95	90 - 110	0	20
Dissolved Organic Carbon - Quad			20.0	19.1		mg/L		95	90 - 110	0	20

Lab Sample ID: 550-217592-17 MS
Matrix: Water
Analysis Batch: 320448

Client Sample ID: CH-CCR-W303-0424
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	3.0		20.0	23.6		mg/L		103	90 - 110
Dissolved Organic Carbon - Duplicate	3.0		20.0	23.6		mg/L		103	90 - 110
Dissolved Organic Carbon - Quad	3.0		20.0	23.6		mg/L		103	90 - 110

Lab Sample ID: 550-217592-17 MSD
Matrix: Water
Analysis Batch: 320448

Client Sample ID: CH-CCR-W303-0424
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	3.0		20.0	23.7		mg/L		104	90 - 110	1	20
Dissolved Organic Carbon - Duplicate	3.0		20.0	23.7		mg/L		104	90 - 110	1	20
Dissolved Organic Carbon - Quad	3.0		20.0	23.7		mg/L		104	90 - 110	1	20

HPLC/IC

Analysis Batch: 319964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	300.0	
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	300.0	
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	300.0	
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	300.0	
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	300.0	
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	300.0	
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	300.0	
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	300.0	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	300.0	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	300.0	
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	300.0	
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	300.0	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	300.0	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	300.0	
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	300.0	
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	300.0	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	300.0	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	300.0	
MB 550-319964/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319964/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319964/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217493-J-1 MS ^5	Matrix Spike	Total/NA	Water	300.0	
550-217493-J-1 MSD ^5	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 319974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	300.0	
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	300.0	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	300.0	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	300.0	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	300.0	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	300.0	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	300.0	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	300.0	
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	300.0	
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	300.0	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	300.0	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	300.0	
MB 550-319974/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319974/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319974/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217592-20 MS	CH-CCR-W304-0424	Total/NA	Water	300.0	
550-217592-20 MSD	CH-CCR-W304-0424	Total/NA	Water	300.0	

Analysis Batch: 320156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	300.0	
MB 550-320156/35	Method Blank	Total/NA	Water	300.0	
LCS 550-320156/36	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-320156/37	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217719-A-2 MS	Matrix Spike	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 320156 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217719-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 319916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-1	CH-CCR-M52A-0424	Dissolved	Water	200.8	
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	200.8	
550-217592-3	CH-CCR-M53A-0424	Dissolved	Water	200.8	
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	200.8	
550-217592-5	CH-CCR-M55A-0424	Dissolved	Water	200.8	
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	200.8	
550-217592-7	CH-CCR-MW69A-0424	Dissolved	Water	200.8	
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	200.8	
550-217592-9	CH-CCR-MW70M-0424	Dissolved	Water	200.8	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	200.8	
550-217592-11	CH-CCR-MW73A-0424	Dissolved	Water	200.8	
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	200.8	
550-217592-13	CH-CCR-MW74M-0424	Dissolved	Water	200.8	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	200.8	
550-217592-15	CH-CCR-W301-0424	Dissolved	Water	200.8	
MB 550-319916/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-319916/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-319916/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-217589-E-1-A MS	Matrix Spike	Dissolved	Water	200.8	
550-217589-E-1-B MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	

Prep Batch: 319917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	200.8	
550-217592-17	CH-CCR-W303-0424	Dissolved	Water	200.8	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	200.8	
550-217592-19	CH-CCR-W304-0424	Dissolved	Water	200.8	
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	200.8	
550-217592-21	CH-CCR-W306-0424	Dissolved	Water	200.8	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	200.8	
550-217592-23	CH-CCR-W307R-0424	Dissolved	Water	200.8	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	200.8	
550-217592-25	CH-CCR-W308-0424	Dissolved	Water	200.8	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	200.8	
550-217592-27	CH-CCR-W309-0424	Dissolved	Water	200.8	
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	200.8	
550-217592-29	CH-CCR-FD03-0424	Dissolved	Water	200.8	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	200.8	
MB 550-319917/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-319917/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-319917/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-217592-16 MS	CH-CCR-W301-0424	Total/NA	Water	200.8	
550-217592-16 MSD	CH-CCR-W301-0424	Total/NA	Water	200.8	

Metals

Prep Batch: 319930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-1	CH-CCR-M52A-0424	Dissolved	Water	200.7	
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	200.7	
550-217592-3	CH-CCR-M53A-0424	Dissolved	Water	200.7	
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	200.7	
550-217592-5	CH-CCR-M55A-0424	Dissolved	Water	200.7	
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	200.7	
550-217592-7	CH-CCR-MW69A-0424	Dissolved	Water	200.7	
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	200.7	
550-217592-9	CH-CCR-MW70M-0424	Dissolved	Water	200.7	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	200.7	
550-217592-11	CH-CCR-MW73A-0424	Dissolved	Water	200.7	
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	200.7	
550-217592-13	CH-CCR-MW74M-0424	Dissolved	Water	200.7	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	200.7	
550-217592-15	CH-CCR-W301-0424	Dissolved	Water	200.7	
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217589-E-2-B MS	Matrix Spike	Total/NA	Water	200.7	
550-217589-E-2-B MS ^100	Matrix Spike	Total/NA	Water	200.7	
550-217589-E-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-217589-E-2-C MSD ^100	Matrix Spike Duplicate	Total/NA	Water	200.7	

Prep Batch: 319932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	200.7	
550-217592-17	CH-CCR-W303-0424	Dissolved	Water	200.7	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	200.7	
550-217592-19	CH-CCR-W304-0424	Dissolved	Water	200.7	
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	200.7	
550-217592-21	CH-CCR-W306-0424	Dissolved	Water	200.7	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	200.7	
550-217592-23	CH-CCR-W307R-0424	Dissolved	Water	200.7	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	200.7	
550-217592-25	CH-CCR-W308-0424	Dissolved	Water	200.7	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	200.7	
550-217592-27	CH-CCR-W309-0424	Dissolved	Water	200.7	
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	200.7	
550-217592-29	CH-CCR-FD03-0424	Dissolved	Water	200.7	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	200.7	
MB 550-319932/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-319932/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-319932/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217592-18 MS	CH-CCR-W303-0424	Total/NA	Water	200.7	
550-217592-18 MSD	CH-CCR-W303-0424	Total/NA	Water	200.7	

Prep Batch: 319946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	245.1	
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	245.1	
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	245.1	

Metals (Continued)

Prep Batch: 319946 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	245.1	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	245.1	
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	245.1	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	245.1	
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	245.1	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	245.1	
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	245.1	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	245.1	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	245.1	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	245.1	
MB 550-319946/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-319946/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-319946/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-217554-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
550-217592-14 MS	CH-CCR-MW74M-0424	Total/NA	Water	245.1	

Analysis Batch: 319976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	245.1	319946
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	245.1	319946
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	245.1	319946
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	245.1	319946
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	245.1	319946
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	245.1	319946
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	245.1	319946
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	245.1	319946
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	245.1	319946
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	245.1	319946
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	245.1	319946
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	245.1	319946
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	245.1	319946
MB 550-319946/1-A	Method Blank	Total/NA	Water	245.1	319946
LCS 550-319946/2-A	Lab Control Sample	Total/NA	Water	245.1	319946
LCSD 550-319946/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	319946
550-217554-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	319946
550-217592-14 MS	CH-CCR-MW74M-0424	Total/NA	Water	245.1	319946

Analysis Batch: 320293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-1	CH-CCR-M52A-0424	Dissolved	Water	200.8 LL	319916
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	200.8 LL	319916
550-217592-3	CH-CCR-M53A-0424	Dissolved	Water	200.8 LL	319916
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	200.8 LL	319916
550-217592-5	CH-CCR-M55A-0424	Dissolved	Water	200.8 LL	319916
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	200.8 LL	319916
550-217592-7	CH-CCR-MW69A-0424	Dissolved	Water	200.8 LL	319916
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	200.8 LL	319916
550-217592-9	CH-CCR-MW70M-0424	Dissolved	Water	200.8 LL	319916
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	200.8 LL	319916
550-217592-11	CH-CCR-MW73A-0424	Dissolved	Water	200.8 LL	319916
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	200.8 LL	319916

Metals (Continued)

Analysis Batch: 320293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-13	CH-CCR-MW74M-0424	Dissolved	Water	200.8 LL	319916
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	200.8 LL	319916
550-217592-15	CH-CCR-W301-0424	Dissolved	Water	200.8 LL	319916
MB 550-319916/1-A	Method Blank	Total/NA	Water	200.8 LL	319916
LCS 550-319916/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	319916
LCSD 550-319916/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	319916
550-217589-E-1-A MS	Matrix Spike	Dissolved	Water	200.8 LL	319916
550-217589-E-1-B MSD	Matrix Spike Duplicate	Dissolved	Water	200.8 LL	319916

Analysis Batch: 320295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	200.8 LL	319917
550-217592-17	CH-CCR-W303-0424	Dissolved	Water	200.8 LL	319917
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	200.8 LL	319917
550-217592-19	CH-CCR-W304-0424	Dissolved	Water	200.8 LL	319917
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	200.8 LL	319917
550-217592-23	CH-CCR-W307R-0424	Dissolved	Water	200.8 LL	319917
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	200.8 LL	319917
550-217592-25	CH-CCR-W308-0424	Dissolved	Water	200.8 LL	319917
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	200.8 LL	319917
550-217592-27	CH-CCR-W309-0424	Dissolved	Water	200.8 LL	319917
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	200.8 LL	319917
550-217592-29	CH-CCR-FD03-0424	Dissolved	Water	200.8 LL	319917
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	200.8 LL	319917
MB 550-319917/1-A	Method Blank	Total/NA	Water	200.8 LL	319917
LCS 550-319917/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	319917
LCSD 550-319917/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	319917

Prep Batch: 320383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	245.1	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	245.1	
MB 550-320383/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-320383/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-320383/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-217592-28 MS	CH-CCR-W309-0424	Total/NA	Water	245.1	
550-217592-28 MSD	CH-CCR-W309-0424	Total/NA	Water	245.1	

Analysis Batch: 320439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-17	CH-CCR-W303-0424	Dissolved	Water	200.7	319932
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-19	CH-CCR-W304-0424	Dissolved	Water	200.7	319932
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-21	CH-CCR-W306-0424	Dissolved	Water	200.7	319932
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-23	CH-CCR-W307R-0424	Dissolved	Water	200.7	319932
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-25	CH-CCR-W308-0424	Dissolved	Water	200.7	319932
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	200.7 Rev 4.4	319932

Metals (Continued)

Analysis Batch: 320439 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-27	CH-CCR-W309-0424	Dissolved	Water	200.7	319932
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-29	CH-CCR-FD03-0424	Dissolved	Water	200.7	319932
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	200.7 Rev 4.4	319932
MB 550-319932/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319932
LCS 550-319932/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319932
LCSD 550-319932/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-18 MS	CH-CCR-W303-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-18 MSD	CH-CCR-W303-0424	Total/NA	Water	200.7 Rev 4.4	319932

Analysis Batch: 320440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-1	CH-CCR-M52A-0424	Dissolved	Water	200.7	319930
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-3	CH-CCR-M53A-0424	Dissolved	Water	200.7	319930
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-5	CH-CCR-M55A-0424	Dissolved	Water	200.7	319930
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-7	CH-CCR-MW69A-0424	Dissolved	Water	200.7	319930
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-9	CH-CCR-MW70M-0424	Dissolved	Water	200.7	319930
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-11	CH-CCR-MW73A-0424	Dissolved	Water	200.7	319930
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-13	CH-CCR-MW74M-0424	Dissolved	Water	200.7	319930
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-15	CH-CCR-W301-0424	Dissolved	Water	200.7	319930
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319930
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319930
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-E-2-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-E-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	319930

Analysis Batch: 320507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	200.8 LL	319916
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	200.8 LL	319916
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	200.8 LL	319916
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	200.8 LL	319916
MB 550-319916/1-A	Method Blank	Total/NA	Water	200.8 LL	319916
LCS 550-319916/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	319916
LCSD 550-319916/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	319916

Analysis Batch: 320508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	200.8 LL	319917
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	200.8 LL	319917
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	200.8 LL	319917
550-217592-21	CH-CCR-W306-0424	Dissolved	Water	200.8 LL	319917
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	200.8 LL	319917
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	200.8 LL	319917

Metals (Continued)

Analysis Batch: 320508 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	200.8 LL	319917
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	200.8 LL	319917
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	200.8 LL	319917
MB 550-319917/1-A	Method Blank	Total/NA	Water	200.8 LL	319917
LCS 550-319917/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	319917
LCSD 550-319917/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	319917
550-217592-16 MS	CH-CCR-W301-0424	Total/NA	Water	200.8 LL	319917
550-217592-16 MSD	CH-CCR-W301-0424	Total/NA	Water	200.8 LL	319917

Analysis Batch: 320539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	200.7 Rev 4.4	319932
MB 550-319932/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319932
LCS 550-319932/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319932
LCSD 550-319932/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-18 MS	CH-CCR-W303-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-18 MSD	CH-CCR-W303-0424	Total/NA	Water	200.7 Rev 4.4	319932

Analysis Batch: 320547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	200.7 Rev 4.4	319930
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319930
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319930
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-E-2-B MS ^100	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-E-2-C MSD ^100	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	319930

Analysis Batch: 320556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	245.1	320383
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	245.1	320383
MB 550-320383/1-A	Method Blank	Total/NA	Water	245.1	320383
LCS 550-320383/2-A	Lab Control Sample	Total/NA	Water	245.1	320383
LCSD 550-320383/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	320383
550-217592-28 MS	CH-CCR-W309-0424	Total/NA	Water	245.1	320383
550-217592-28 MSD	CH-CCR-W309-0424	Total/NA	Water	245.1	320383

Metals

Prep Batch: 651479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total Recoverable	Water	200.7	
550-217592-4	CH-CCR-M53A-0424	Total Recoverable	Water	200.7	
550-217592-6	CH-CCR-M55A-0424	Total Recoverable	Water	200.7	
550-217592-8	CH-CCR-MW69A-0424	Total Recoverable	Water	200.7	
550-217592-10	CH-CCR-MW70M-0424	Total Recoverable	Water	200.7	
550-217592-12	CH-CCR-MW73A-0424	Total Recoverable	Water	200.7	
550-217592-14	CH-CCR-MW74M-0424	Total Recoverable	Water	200.7	
550-217592-16	CH-CCR-W301-0424	Total Recoverable	Water	200.7	
MB 280-651479/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-651479/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-651479/16-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

Prep Batch: 651506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-18	CH-CCR-W303-0424	Total Recoverable	Water	200.7	
550-217592-20	CH-CCR-W304-0424	Total Recoverable	Water	200.7	
550-217592-22	CH-CCR-W306-0424	Total Recoverable	Water	200.7	
550-217592-24	CH-CCR-W307R-0424	Total Recoverable	Water	200.7	
550-217592-26	CH-CCR-W308-0424	Total Recoverable	Water	200.7	
550-217592-28	CH-CCR-W309-0424	Total Recoverable	Water	200.7	
550-217592-30	CH-CCR-FD03-0424	Total Recoverable	Water	200.7	
MB 280-651506/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-651506/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
550-217592-18 MS	CH-CCR-W303-0424	Total Recoverable	Water	200.7	
550-217592-18 MSD	CH-CCR-W303-0424	Total Recoverable	Water	200.7	

Analysis Batch: 652329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
550-217592-4	CH-CCR-M53A-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
550-217592-6	CH-CCR-M55A-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
550-217592-8	CH-CCR-MW69A-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
550-217592-10	CH-CCR-MW70M-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
550-217592-12	CH-CCR-MW73A-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
550-217592-14	CH-CCR-MW74M-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
550-217592-16	CH-CCR-W301-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
MB 280-651479/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	651479
LCS 280-651479/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	651479
LCSD 280-651479/16-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	651479

Analysis Batch: 652948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-18	CH-CCR-W303-0424	Total Recoverable	Water	200.7 Rev 4.4	651506
550-217592-20	CH-CCR-W304-0424	Total Recoverable	Water	200.7 Rev 4.4	651506
550-217592-22	CH-CCR-W306-0424	Total Recoverable	Water	200.7 Rev 4.4	651506
550-217592-24	CH-CCR-W307R-0424	Total Recoverable	Water	200.7 Rev 4.4	651506
550-217592-26	CH-CCR-W308-0424	Total Recoverable	Water	200.7 Rev 4.4	651506
550-217592-28	CH-CCR-W309-0424	Total Recoverable	Water	200.7 Rev 4.4	651506
550-217592-30	CH-CCR-FD03-0424	Total Recoverable	Water	200.7 Rev 4.4	651506
MB 280-651506/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	651506
LCS 280-651506/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	651506

Metals (Continued)

Analysis Batch: 652948 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-18 MS	CH-CCR-W303-0424	Total Recoverable	Water	200.7 Rev 4.4	651506
550-217592-18 MSD	CH-CCR-W303-0424	Total Recoverable	Water	200.7 Rev 4.4	651506

General Chemistry

Analysis Batch: 320055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	SM 2540C	
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	SM 2540C	
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	SM 2540C	
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	SM 2540C	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	SM 2540C	
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	SM 2540C	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	SM 2540C	
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	SM 2540C	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	SM 2540C	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	SM 2540C	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	SM 2540C	
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	SM 2540C	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	SM 2540C	
MB 550-320055/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320055/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320055/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217577-A-26 DU	Duplicate	Total/NA	Water	SM 2540C	
550-217592-20 DU	CH-CCR-W304-0424	Total/NA	Water	SM 2540C	

Analysis Batch: 320078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	SM 2320B	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	SM 2320B	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	SM 2320B	
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	SM 2320B	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	SM 2320B	
MB 550-320078/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320078/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320078/17	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217445-H-2 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 320144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	SM 2540C	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	SM 2540C	
MB 550-320144/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320144/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320144/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217578-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 320157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	350.1	
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 320157 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-320157/60	Method Blank	Total/NA	Water	350.1	
LCS 550-320157/61	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-320157/62	Lab Control Sample Dup	Total/NA	Water	350.1	

Analysis Batch: 320161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320161/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320161/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-217481-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 320204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-1	CH-CCR-M52A-0424	Dissolved	Water	SM 5310B	
550-217592-3	CH-CCR-M53A-0424	Dissolved	Water	SM 5310B	
550-217592-5	CH-CCR-M55A-0424	Dissolved	Water	SM 5310B	
550-217592-7	CH-CCR-MW69A-0424	Dissolved	Water	SM 5310B	
550-217592-9	CH-CCR-MW70M-0424	Dissolved	Water	SM 5310B	
550-217592-11	CH-CCR-MW73A-0424	Dissolved	Water	SM 5310B	
550-217592-13	CH-CCR-MW74M-0424	Dissolved	Water	SM 5310B	
550-217592-15	CH-CCR-W301-0424	Dissolved	Water	SM 5310B	
MB 550-320204/6	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-320204/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-320204/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-217589-B-1 MS	Matrix Spike	Dissolved	Water	SM 5310B	
550-217589-B-1 MSD	Matrix Spike Duplicate	Dissolved	Water	SM 5310B	

Analysis Batch: 320223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	SM 2320B	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	SM 2320B	
MB 550-320223/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320223/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320223/14	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217578-B-4 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 320229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	350.1	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	350.1	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	350.1	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	350.1	
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	350.1	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	350.1	
MB 550-320229/21	Method Blank	Total/NA	Water	350.1	
LCS 550-320229/22	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-320229/23	Lab Control Sample Dup	Total/NA	Water	350.1	
550-217592-20 MS	CH-CCR-W304-0424	Total/NA	Water	350.1	
550-217592-20 MSD	CH-CCR-W304-0424	Total/NA	Water	350.1	

General Chemistry

Analysis Batch: 320321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	SM 4500 H+ B	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320321/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320321/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320321/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-217592-12 DU	CH-CCR-MW73A-0424	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 320334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	SM 2320B	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	SM 2320B	
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	SM 2320B	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	SM 2320B	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	SM 2320B	
MB 550-320334/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320334/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320334/13	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217471-H-18 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 320448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-17	CH-CCR-W303-0424	Dissolved	Water	SM 5310B	
550-217592-19	CH-CCR-W304-0424	Dissolved	Water	SM 5310B	
550-217592-21	CH-CCR-W306-0424	Dissolved	Water	SM 5310B	
550-217592-23	CH-CCR-W307R-0424	Dissolved	Water	SM 5310B	
550-217592-25	CH-CCR-W308-0424	Dissolved	Water	SM 5310B	
550-217592-27	CH-CCR-W309-0424	Dissolved	Water	SM 5310B	
550-217592-29	CH-CCR-FD03-0424	Dissolved	Water	SM 5310B	
MB 550-320448/6	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-320448/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-320448/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-217592-17 MS	CH-CCR-W303-0424	Dissolved	Water	SM 5310B	
550-217592-17 MSD	CH-CCR-W303-0424	Dissolved	Water	SM 5310B	

Analysis Batch: 320560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	350.1	
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	350.1	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 320560 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	350.1	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	350.1	
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	350.1	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	350.1	
MB 550-320560/21	Method Blank	Total/NA	Water	350.1	
LCS 550-320560/22	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-320560/23	Lab Control Sample Dup	Total/NA	Water	350.1	
550-217592-6 MS	CH-CCR-M55A-0424	Total/NA	Water	350.1	
550-217592-6 MSD	CH-CCR-M55A-0424	Total/NA	Water	350.1	

Analysis Batch: 652685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	353.2	
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	353.2	
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	353.2	
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	353.2	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	353.2	
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	353.2	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	353.2	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	353.2	
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	353.2	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	353.2	
MB 280-652685/57	Method Blank	Total/NA	Water	353.2	
MB 280-652685/94	Method Blank	Total/NA	Water	353.2	
LCS 280-652685/55	Lab Control Sample	Total/NA	Water	353.2	
LCS 280-652685/92	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-652685/56	Lab Control Sample Dup	Total/NA	Water	353.2	
LCSD 280-652685/93	Lab Control Sample Dup	Total/NA	Water	353.2	
550-217592-2 MS	CH-CCR-M52A-0424	Total/NA	Water	353.2	
550-217592-2 MSD	CH-CCR-M52A-0424	Total/NA	Water	353.2	
550-217592-22 MS	CH-CCR-W306-0424	Total/NA	Water	353.2	
550-217592-22 MSD	CH-CCR-W306-0424	Total/NA	Water	353.2	

Analysis Batch: 652869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	353.2	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	353.2	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	353.2	
550-217592-28	CH-CCR-W309-0424	Total/NA	Water	353.2	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	353.2	
MB 280-652869/20	Method Blank	Total/NA	Water	353.2	
LCS 280-652869/18	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-652869/19	Lab Control Sample Dup	Total/NA	Water	353.2	
550-217592-24 MS	CH-CCR-W307R-0424	Total/NA	Water	353.2	
550-217592-24 MSD	CH-CCR-W307R-0424	Total/NA	Water	353.2	

Lab Chronicle

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

Job ID: 550-217592-1

Client Sample ID: CH-CCR-M52A-0424

Lab Sample ID: 550-217592-1

Date Collected: 04/23/24 16:29
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 05:25
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:11
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 20:31

Client Sample ID: CH-CCR-M52A-0424

Lab Sample ID: 550-217592-2

Date Collected: 04/23/24 16:29
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/29/24 19:55
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/29/24 20:20
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652329	ADL	EET DEN	05/06/24 14:48
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	320440	GLW	EET PHX	05/07/24 05:32
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		100	320547	GLW	EET PHX	05/08/24 15:13
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:13
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:21
Total/NA	Analysis	350.1		1	320157	KMS	EET PHX	05/01/24 15:10
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 17:58
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320161	ELN	EET PHX	05/01/24 17:51

Client Sample ID: CH-CCR-M53A-0424

Lab Sample ID: 550-217592-3

Date Collected: 04/23/24 13:04
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 05:39
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:15
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 20:48

Client Sample ID: CH-CCR-M53A-0424

Lab Sample ID: 550-217592-4

Date Collected: 04/23/24 13:04

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/29/24 20:45
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/29/24 21:10
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652329	ADL	EET DEN	05/06/24 14:52
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	320440	GLW	EET PHX	05/07/24 05:46
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		100	320547	GLW	EET PHX	05/08/24 15:16
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:17
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:23
Total/NA	Analysis	350.1		1	320157	KMS	EET PHX	05/01/24 15:11
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 18:04
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:21

Client Sample ID: CH-CCR-M55A-0424

Lab Sample ID: 550-217592-5

Date Collected: 04/22/24 10:49

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 05:53
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:19
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 21:05

Client Sample ID: CH-CCR-M55A-0424

Lab Sample ID: 550-217592-6

Date Collected: 04/22/24 10:49

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/29/24 21:35
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/29/24 22:00
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652329	ADL	EET DEN	05/06/24 14:57
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	320440	GLW	EET PHX	05/07/24 06:00
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		100	320547	GLW	EET PHX	05/08/24 15:20
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:21

Lab Chronicle

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

Job ID: 550-217592-1

Client Sample ID: CH-CCR-M55A-0424

Lab Sample ID: 550-217592-6

Date Collected: 04/22/24 10:49
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:25
Total/NA	Analysis	350.1		1	320560	CXK	EET PHX	05/08/24 11:42
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 18:06
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:22

Client Sample ID: CH-CCR-MW69A-0424

Lab Sample ID: 550-217592-7

Date Collected: 04/25/24 09:58
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 06:13
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:31
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 21:18

Client Sample ID: CH-CCR-MW69A-0424

Lab Sample ID: 550-217592-8

Date Collected: 04/25/24 09:58
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/29/24 22:25
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/29/24 22:50
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652329	ADL	EET DEN	05/06/24 15:01
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	320440	GLW	EET PHX	05/07/24 06:20
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		100	320547	GLW	EET PHX	05/08/24 15:23
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:33
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320507	DSJ	EET PHX	05/07/24 12:53
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:27
Total/NA	Analysis	350.1		1	320560	CXK	EET PHX	05/08/24 11:47
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 18:08
Total/NA	Analysis	SM 2320B		1	320223	ELN	EET PHX	05/02/24 12:32
Total/NA	Analysis	SM 2540C		1	320144	RGR	EET PHX	05/01/24 15:31 - 05/03/24 06:32 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:23

Client Sample ID: CH-CCR-MW70M-0424

Lab Sample ID: 550-217592-9

Date Collected: 04/25/24 11:27

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 06:27
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:35
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 21:35

Client Sample ID: CH-CCR-MW70M-0424

Lab Sample ID: 550-217592-10

Date Collected: 04/25/24 11:27

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/29/24 23:15
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/30/24 00:55
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652329	ADL	EET DEN	05/06/24 15:05
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	320440	GLW	EET PHX	05/07/24 06:34
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		100	320547	GLW	EET PHX	05/08/24 15:26
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:37
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320507	DSJ	EET PHX	05/07/24 12:55
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:29
Total/NA	Analysis	350.1		1	320560	CXK	EET PHX	05/08/24 11:48
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 18:10
Total/NA	Analysis	SM 2320B		1	320223	ELN	EET PHX	05/02/24 12:39
Total/NA	Analysis	SM 2540C		1	320144	RGR	EET PHX	05/01/24 15:31 - 05/03/24 06:32 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:25

Client Sample ID: CH-CCR-MW73A-0424

Lab Sample ID: 550-217592-11

Date Collected: 04/24/24 15:27

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 06:41
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:39
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 21:50

Client Sample ID: CH-CCR-MW73A-0424

Lab Sample ID: 550-217592-12

Date Collected: 04/24/24 15:27

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/30/24 01:20
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/30/24 01:46
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652329	ADL	EET DEN	05/06/24 15:09
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	320440	GLW	EET PHX	05/07/24 06:47
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		100	320547	GLW	EET PHX	05/08/24 15:30
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:41
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320507	DSJ	EET PHX	05/07/24 12:57
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:32
Total/NA	Analysis	350.1		1	320560	CXK	EET PHX	05/08/24 11:50
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 18:12
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 11:23
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:26

Client Sample ID: CH-CCR-MW74M-0424

Lab Sample ID: 550-217592-13

Date Collected: 04/24/24 12:04

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 06:54
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:43
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 22:02

Client Sample ID: CH-CCR-MW74M-0424

Lab Sample ID: 550-217592-14

Date Collected: 04/24/24 12:04

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/30/24 02:11
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/30/24 02:36
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652329	ADL	EET DEN	05/06/24 15:13
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	320440	GLW	EET PHX	05/07/24 07:01
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		100	320547	GLW	EET PHX	05/08/24 15:33

Client Sample ID: CH-CCR-MW74M-0424

Lab Sample ID: 550-217592-14

Date Collected: 04/24/24 12:04

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:45
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320507	DSJ	EET PHX	05/07/24 12:59
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:34
Total/NA	Analysis	350.1		1	320560	CXK	EET PHX	05/08/24 11:51
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 18:14
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 11:30
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:31

Client Sample ID: CH-CCR-W301-0424

Lab Sample ID: 550-217592-15

Date Collected: 04/23/24 09:52

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 07:08
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:47
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 22:17

Client Sample ID: CH-CCR-W301-0424

Lab Sample ID: 550-217592-16

Date Collected: 04/23/24 09:52

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/30/24 03:01
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/30/24 03:26
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652329	ADL	EET DEN	05/06/24 15:17
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	320439	GLW	EET PHX	05/07/24 02:59
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		100	320539	GLW	EET PHX	05/08/24 14:16
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:16
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		5	320508	DSJ	EET PHX	05/07/24 13:21
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:42
Total/NA	Analysis	350.1		1	320560	CXK	EET PHX	05/08/24 11:53
Total/NA	Analysis	353.2		5	652869	BCR	EET DEN	05/09/24 15:27

Client Sample ID: CH-CCR-W301-0424

Lab Sample ID: 550-217592-16

Date Collected: 04/23/24 09:52

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 11:36
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:32

Client Sample ID: CH-CCR-W303-0424

Lab Sample ID: 550-217592-17

Date Collected: 04/23/24 11:16

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Dissolved	Analysis	200.7		1	320439	GLW	EET PHX	05/07/24 02:52
Dissolved	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Dissolved	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:18
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 14:24

Client Sample ID: CH-CCR-W303-0424

Lab Sample ID: 550-217592-18

Date Collected: 04/23/24 11:16

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/30/24 03:51
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/30/24 04:16
Total Recoverable	Prep	200.7			651506	JTC	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652948	ADL	EET DEN	05/09/24 16:57
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	320439	GLW	EET PHX	05/07/24 02:46
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		100	320539	GLW	EET PHX	05/08/24 14:12
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:21
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320508	DSJ	EET PHX	05/07/24 13:27
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:45
Total/NA	Analysis	350.1		1	320560	CXK	EET PHX	05/08/24 11:54
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 18:18
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 11:42
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:33

Client Sample ID: CH-CCR-W304-0424

Lab Sample ID: 550-217592-19

Date Collected: 04/22/24 16:34

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Dissolved	Analysis	200.7		1	320439	GLW	EET PHX	05/07/24 03:06
Dissolved	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Dissolved	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:23
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 15:22

Client Sample ID: CH-CCR-W304-0424

Lab Sample ID: 550-217592-20

Date Collected: 04/22/24 16:34

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319974	RDC	EET PHX	04/29/24 14:16
Total/NA	Analysis	300.0		100	319974	RDC	EET PHX	04/29/24 14:35
Total Recoverable	Prep	200.7			651506	JTC	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652948	ADL	EET DEN	05/09/24 17:30
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	320439	GLW	EET PHX	05/07/24 03:13
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		100	320539	GLW	EET PHX	05/08/24 14:19
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:25
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320508	DSJ	EET PHX	05/07/24 13:29
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:47
Total/NA	Analysis	350.1		1	320229	KMS	EET PHX	05/02/24 12:20
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 18:20
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 16:43
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:35

Client Sample ID: CH-CCR-W306-0424

Lab Sample ID: 550-217592-21

Date Collected: 04/23/24 14:02

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Dissolved	Analysis	200.7		1	320439	GLW	EET PHX	05/07/24 03:20
Dissolved	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Dissolved	Analysis	200.8 LL		5	320508	DSJ	EET PHX	05/07/24 13:23
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 15:35

Client Sample ID: CH-CCR-W306-0424

Lab Sample ID: 550-217592-22

Date Collected: 04/23/24 14:02

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319974	RDC	EET PHX	04/29/24 15:30
Total/NA	Analysis	300.0		100	319974	RDC	EET PHX	04/29/24 15:48
Total/NA	Analysis	300.0		200	320156	RDC	EET PHX	05/02/24 09:45
Total Recoverable	Prep	200.7			651506	JTC	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652948	ADL	EET DEN	05/09/24 17:34
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	320439	GLW	EET PHX	05/07/24 03:26
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		100	320539	GLW	EET PHX	05/08/24 14:23
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		5	320508	DSJ	EET PHX	05/07/24 13:25
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:49
Total/NA	Analysis	350.1		1	320229	KMS	EET PHX	05/02/24 12:24
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 18:38
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 11:49
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:36

Client Sample ID: CH-CCR-W307R-0424

Lab Sample ID: 550-217592-23

Date Collected: 04/22/24 14:46

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Dissolved	Analysis	200.7		1	320439	GLW	EET PHX	05/07/24 03:33
Dissolved	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Dissolved	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:31
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 15:47

Client Sample ID: CH-CCR-W307R-0424

Lab Sample ID: 550-217592-24

Date Collected: 04/22/24 14:46

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319974	RDC	EET PHX	04/29/24 16:07
Total/NA	Analysis	300.0		100	319974	RDC	EET PHX	04/29/24 16:25
Total Recoverable	Prep	200.7			651506	JTC	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652948	ADL	EET DEN	05/09/24 17:39
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	320439	GLW	EET PHX	05/07/24 03:47
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		100	320539	GLW	EET PHX	05/08/24 14:26

Client Sample ID: CH-CCR-W307R-0424

Lab Sample ID: 550-217592-24

Date Collected: 04/22/24 14:46

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:33
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320508	DSJ	EET PHX	05/07/24 13:31
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:51
Total/NA	Analysis	350.1		1	320229	KMS	EET PHX	05/02/24 12:26
Total/NA	Analysis	353.2		1	652869	BCR	EET DEN	05/09/24 15:15
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 16:49
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:37

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-25

Date Collected: 04/22/24 13:35

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Dissolved	Analysis	200.7		1	320439	GLW	EET PHX	05/07/24 03:54
Dissolved	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Dissolved	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:35
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 16:02

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-26

Date Collected: 04/22/24 13:35

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319974	RDC	EET PHX	04/29/24 16:44
Total/NA	Analysis	300.0		100	319974	RDC	EET PHX	04/29/24 17:02
Total Recoverable	Prep	200.7			651506	JTC	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652948	ADL	EET DEN	05/09/24 17:43
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	320439	GLW	EET PHX	05/07/24 04:00
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		100	320539	GLW	EET PHX	05/08/24 14:29
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:43
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320508	DSJ	EET PHX	05/07/24 13:34
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:53
Total/NA	Analysis	350.1		1	320229	KMS	EET PHX	05/02/24 12:27
Total/NA	Analysis	353.2		1	652869	BCR	EET DEN	05/09/24 15:21

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-26

Date Collected: 04/22/24 13:35

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 16:55
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:38

Client Sample ID: CH-CCR-W309-0424

Lab Sample ID: 550-217592-27

Date Collected: 04/22/24 09:49

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Dissolved	Analysis	200.7		1	320439	GLW	EET PHX	05/07/24 04:07
Dissolved	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Dissolved	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:45
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 16:17

Client Sample ID: CH-CCR-W309-0424

Lab Sample ID: 550-217592-28

Date Collected: 04/22/24 09:49

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319974	RDC	EET PHX	04/29/24 17:57
Total/NA	Analysis	300.0		100	319974	RDC	EET PHX	04/29/24 18:16
Total Recoverable	Prep	200.7			651506	JTC	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652948	ADL	EET DEN	05/09/24 17:47
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	320439	GLW	EET PHX	05/07/24 04:14
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		100	320539	GLW	EET PHX	05/08/24 14:33
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:47
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320508	DSJ	EET PHX	05/07/24 13:35
Total/NA	Prep	245.1			320383	GLW	EET PHX	05/08/24 11:42
Total/NA	Analysis	245.1		1	320556	HHL	EET PHX	05/08/24 16:25
Total/NA	Analysis	350.1		1	320229	KMS	EET PHX	05/02/24 12:29
Total/NA	Analysis	353.2		1	652869	BCR	EET DEN	05/09/24 15:23
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 17:02
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:39

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

Job ID: 550-217592-1

Client Sample ID: CH-CCR-FD03-0424

Lab Sample ID: 550-217592-29

Date Collected: 04/22/24 16:20

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Dissolved	Analysis	200.7		1	320439	GLW	EET PHX	05/07/24 04:21
Dissolved	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Dissolved	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:49
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 16:31

Client Sample ID: CH-CCR-FD03-0424

Lab Sample ID: 550-217592-30

Date Collected: 04/22/24 16:20

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319974	RDC	EET PHX	04/29/24 18:34
Total/NA	Analysis	300.0		100	319974	RDC	EET PHX	04/29/24 18:52
Total Recoverable	Prep	200.7			651506	JTC	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652948	ADL	EET DEN	05/09/24 17:51
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	320439	GLW	EET PHX	05/07/24 04:28
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		100	320539	GLW	EET PHX	05/08/24 14:36
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320295	DSJ	EET PHX	05/02/24 16:51
Total/NA	Prep	200.8			319917	SGO	EET PHX	04/29/24 08:16
Total/NA	Analysis	200.8 LL		1	320508	DSJ	EET PHX	05/07/24 13:38
Total/NA	Prep	245.1			320383	GLW	EET PHX	05/08/24 11:42
Total/NA	Analysis	245.1		1	320556	HHL	EET PHX	05/08/24 16:27
Total/NA	Analysis	350.1		1	320229	KMS	EET PHX	05/02/24 12:30
Total/NA	Analysis	353.2		1	652869	BCR	EET DEN	05/09/24 15:25
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 17:09
Total/NA	Analysis	SM 2540C		1	320055	RGR	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320321	AKS	EET PHX	05/03/24 15:40

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

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

Job ID: 550-217592-1

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	Temperature
SM 5310B		Water	Dissolved Organic Carbon
SM 5310B		Water	Dissolved Organic Carbon - Duplicate
SM 5310B		Water	Dissolved Organic Carbon - Quad

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-24

Method Summary

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

Job ID: 550-217592-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7	Dissolved Metals by ICP	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

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

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217592

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

TestAmerica Laboratories, Inc.

5/28/2024

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	1 of 5 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			Job / SDG No.:
Site: APS Cholla Power Plant (BAP)	☐ 2 days			
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-M52A-0424 -01	04/23/24	1629	G	W	5	Y							X		X				X				Low Flow
CH-CCR-M52A-0424 -02	04/23/24	1629	G	W	5	N		X			X	X		X		X	X	X		X	X		Low Flow
CH-CCR-M53A-0424 -03	04/23/24	1304	G	W	5	Y							X		X				X				"
CH-CCR-M53A-0424 -04	04/23/24	1304	G	W	5	N		X		X		X		X		X	X	X		X	X		"
CH-CCR-M55A-0424 -05	04/22/24	1049	G	W	5	Y							X		X				X				"
CH-CCR-M55A-0424 -06	04/22/24	1049	G	W	5	N		X			X	X		X		X	X	X		X	X		"
CH-CCR-MW69A-0424 -07	04/25/24	958	G	W	5	Y							X		X				X				"
CH-CCR-MW69A-0424 -08	04/25/24	958	G	W	5	N		X			X	X		X		X	X	X		X	X	X	
CH-CCR-MW70M-0424 -09	04/25/24	1127	G	W	5	Y							X		X				X				
CH-CCR-MW70M-0424 -10	04/25/24	1127	G	W	5	N		X			X	X		X		X	X	X		X	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1	

550-217592 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; *As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.6°C/2.6°C/3.8°C/ICE/CBC

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	4-26-24			
Relinquished by:	Company:	Date/Time: 1048	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: EETA-PHX	Date/Time: 4/26/24 1048

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

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217592

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	2 of 5 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)		Sample Specific Notes:
CH-CCR-MW73A-0424 -11	04/24/24	1527	G	W	5	Y							X		X				X					Low Flow
CH-CCR-MW73A-0424 -12	04/24/24	1527	G	W	5	N		X			X	X		X		X	X	X		X	X	X		"
CH-CCR-MW74M-0424 -13	04/24/24	1204	G	W	5	Y							X		X				X					"
CH-CCR-MW74M-0424 -14	04/24/24	1204	G	W	5	N		X			X	X	X	X	X	X	X	X	X	X	X	X		"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1		

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; *As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.6°C/2.6°C/3.8°C/ICE/CPC

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: 4-26-24	Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____			
Relinquished by: BEL	Company: WSP	Date/Time: ~~4-24-24~~	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time: 1049	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 4/26/24 1049

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217592

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

TestAmerica Laboratories, Inc.

5/28/2024

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Robert	Carrier:	3 of 5 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below ____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-W301-0424 -15	04/23/24	952	G	W	5	Y							X		X				X				Low Flow
CH-CCR-W301-0424 -16	04/23/24	952	G	W	5	N		X	X			X		X		X	X	X		X	X	X	"
CH-CCR-W303-0424 -17	04/23/24	1116	G	W	5	Y							X		X				X				"
CH-CCR-W303-0424 -18	04/23/24	1116	G	W	5	N		X	X			X		X		X	X	X		X	X	X	"
CH-CCR-W304-0424 -19	04/22/24	1634	G	W	5	Y							X		X				X				"
CH-CCR-W304-0424 -20	04/22/24	1634	G	W	5	N		X	X			X		X		X	X	X		X	X	X	"
								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1	

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

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1-6°C / 2-6°C / 3-8°C / ICE / CNC

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____			
Relinquished by:	Company: WSP	Date/Time: 4-26-21	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time: 1048	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 4/26/24 1048

TestAmerica Phoenix
4625 E Cotton Center Blvd
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Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217592

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

TestAmerica Laboratories, Inc.

5/28/2024

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Robert	Carrier:	4 of 5 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-W306-0424 -21	04/23/24	1402	G	W	5	Y							X		X				X				"
CH-CCR-W306-0424 -22	04/23/24	1402	G	W	5	N		X	X			X		X		X	X	X		X	X	X	"
CH-CCR-W307R-0424 -23	04/22/24	1446	G	W	5	Y							X		X				X				"
CH-CCR-W307R-0424 -24	04/22/24	1446	G	W	5	N		X	X			X		X		X	X	X		X	X	X	"
CH-CCR-W308-0424 -25	04/22/24	1335	G	W	5	Y							X		X				X				"
CH-CCR-W308-0424 -26	04/22/24	1335	G	W	5	N		X	X			X		X		X	X	X		X	X	X	"
CH-CCR-W309-0424 -27	04/22/24	949	G	W	5	Y							X		X				X				"
CH-CCR-W309-0424 -28	04/22/24	949	G	W	5	N		X	X			X		X		X	X	X		X	X	X	"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.6°C/2.6°C/3.8°C/ICE/CP

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	VSP	4-26-24			
Relinquished by:	Company:	Date/Time: 1048	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: CEETA-PHX	Date/Time: 4/26/24 1048

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217592

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

TestAmerica Laboratories, Inc.

5/28/2024

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	5 of 5 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)			Sample Specific Notes:
CH-CCR-FD03-0424 -29	04/22/24	1620	G	W	5	Y	N					X		X				X						Low Flow
CH-CCR-FD03-0424 -30	04/22/24	1620	G	W	5	N	N	X	X		X		X		X	X	X		X	X	X			Low Flow
								1	4	4	4	4	4	4	4	1	1	2	3	3	1			

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

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

CBC / 1-6°C / 2-6°C / 3-8°C / ICE

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	4-26-24			
Relinquished by:	Company:	Date/Time: 1048	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: EETA-PHX	Date/Time: 4/26/24 1048

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

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39420.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217592-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 5/9/2024			Preservation Codes: -
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-CCR-M52A-0424 (550-217592-2)	4/23/24	16:29 Arizona		Water			X		2	
CH-CCR-M53A-0424 (550-217592-4)	4/23/24	13:04 Arizona		Water			X		2	
CH-CCR-M55A-0424 (550-217592-6)	4/22/24	10:49 Arizona		Water			X		2	
CH-CCR-MW69A-0424 (550-217592-8)	4/25/24	09:58 Arizona		Water			X		2	
CH-CCR-MW70M-0424 (550-217592-10)	4/25/24	11:27 Arizona		Water			X		2	
CH-CCR-MW73A-0424 (550-217592-12)	4/24/24	15:27 Arizona		Water			X		2	
CH-CCR-MW74M-0424 (550-217592-14)	4/24/24	12:04 Arizona		Water			X	X	2	
CH-CCR-W301-0424 (550-217592-16)	4/23/24	09:52 Arizona		Water			X		2	
CH-CCR-W303-0424 (550-217592-18)	4/23/24	11:16 Arizona		Water			X		2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature] 04-26-24	Date/Time: 13:40	Company: EETSW	Received by: [signature]	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 4/27/24 1025	Company: EET DEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.3 Waga CF+02		

Ver: 06/08/2021

5/28/2024

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39420.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217592-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 5/9/2024			Preservation Codes: -
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-CCR-W304-0424 (550-217592-20)	4/22/24	16:34 Arizona		Water			X		2	
CH-CCR-W306-0424 (550-217592-22)	4/23/24	14:02 Arizona		Water			X		2	
CH-CCR-W307R-0424 (550-217592-24)	4/22/24	14:46 Arizona		Water			X		2	
CH-CCR-W308-0424 (550-217592-26)	4/22/24	13:35 Arizona		Water			X		2	
CH-CCR-W309-0424 (550-217592-28)	4/22/24	09:49 Arizona		Water			X		2	
CH-CCR-FD03-0424 (550-217592-30)	4/22/24	16:20 Arizona		Water			X		2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Eve 04-26-24	Date/Time: 13:40	Company: EETSW	Received by: FedEx	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 4/27/24 1025	Company: EETDEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.3 R Nagce CF+0.2		

Ver: 06/08/2021

5/28/2024

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217592-1

Login Number: 217592

List Source: Eurofins Phoenix

List Number: 1

Creator: Gravlin, Andrea

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217592-1

Login Number: 217592
List Number: 2
Creator: Rystrom, Joshua R

List Source: Eurofins Denver
List Creation: 04/27/24 02:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/20/2024 3:02:25 PM

JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-217592-2

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Authorized for release by
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Designee for
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Definitions/Glossary

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

Job ID: 550-217592-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-217592-2 — Eurofins Phoenix

Job Narrative
550-217592-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/26/2024 10:48 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6°C, 2.6°C and 3.2°C.

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

Sample Summary

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

Job ID: 550-217592-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217592-2	CH-CCR-M52A-0424	Water	04/23/24 16:29	04/26/24 10:48
550-217592-4	CH-CCR-M53A-0424	Water	04/23/24 13:04	04/26/24 10:48
550-217592-6	CH-CCR-M55A-0424	Water	04/22/24 10:49	04/26/24 10:48
550-217592-8	CH-CCR-MW69A-0424	Water	04/25/24 09:58	04/26/24 10:48
550-217592-10	CH-CCR-MW70M-0424	Water	04/25/24 11:27	04/26/24 10:48
550-217592-12	CH-CCR-MW73A-0424	Water	04/24/24 15:27	04/26/24 10:48
550-217592-14	CH-CCR-MW74M-0424	Water	04/24/24 12:04	04/26/24 10:48
550-217592-16	CH-CCR-W301-0424	Water	04/23/24 09:52	04/26/24 10:48
550-217592-18	CH-CCR-W303-0424	Water	04/23/24 11:16	04/26/24 10:48
550-217592-20	CH-CCR-W304-0424	Water	04/22/24 16:34	04/26/24 10:48
550-217592-22	CH-CCR-W306-0424	Water	04/23/24 14:02	04/26/24 10:48
550-217592-24	CH-CCR-W307R-0424	Water	04/22/24 14:46	04/26/24 10:48
550-217592-26	CH-CCR-W308-0424	Water	04/22/24 13:35	04/26/24 10:48
550-217592-30	CH-CCR-FD03-0424	Water	04/22/24 16:20	04/26/24 10:48

Detection Summary

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

Job ID: 550-217592-2

Client Sample ID: CH-CCR-M52A-0424 — Lab Sample ID: 550-217592-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0066		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-M53A-0424 — Lab Sample ID: 550-217592-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0058		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-M55A-0424 — Lab Sample ID: 550-217592-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0069		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-MW69A-0424 — Lab Sample ID: 550-217592-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0055		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-MW70M-0424 — Lab Sample ID: 550-217592-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0056		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-MW73A-0424 — Lab Sample ID: 550-217592-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0061		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-MW74M-0424 — Lab Sample ID: 550-217592-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0054		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-W301-0424 — Lab Sample ID: 550-217592-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0081		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-W303-0424 — Lab Sample ID: 550-217592-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0069		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-W304-0424 — Lab Sample ID: 550-217592-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0055		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-W306-0424 — Lab Sample ID: 550-217592-22

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.014		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-W307R-0424 — Lab Sample ID: 550-217592-24

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0060		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 550-217592-2

Client Sample ID: CH-CCR-W308-0424 — Lab Sample ID: 550-217592-26

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0055		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-FD03-0424 — Lab Sample ID: 550-217592-30

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0058		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M52A-0424
Lab Sample ID: 550-217592-2
Date Collected: 04/23/24 16:29
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0066		0.0010		mg/L		04/29/24 08:59	06/19/24 14:56	1

Client Sample ID: CH-CCR-M53A-0424
Lab Sample ID: 550-217592-4
Date Collected: 04/23/24 13:04
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0058		0.0010		mg/L		04/29/24 08:59	06/19/24 15:03	1

Client Sample ID: CH-CCR-M55A-0424
Lab Sample ID: 550-217592-6
Date Collected: 04/22/24 10:49
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0069		0.0010		mg/L		04/29/24 08:59	06/19/24 15:10	1

Client Sample ID: CH-CCR-MW69A-0424
Lab Sample ID: 550-217592-8
Date Collected: 04/25/24 09:58
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0055		0.0010		mg/L		04/29/24 08:59	06/19/24 15:17	1

Client Sample ID: CH-CCR-MW70M-0424
Lab Sample ID: 550-217592-10
Date Collected: 04/25/24 11:27
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0056		0.0010		mg/L		04/29/24 08:59	06/19/24 15:23	1

Client Sample ID: CH-CCR-MW73A-0424
Lab Sample ID: 550-217592-12
Date Collected: 04/24/24 15:27
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0061		0.0010		mg/L		04/29/24 08:59	06/19/24 15:30	1

Client Sample ID: CH-CCR-MW74M-0424
Lab Sample ID: 550-217592-14
Date Collected: 04/24/24 12:04
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0054		0.0010		mg/L		04/29/24 08:59	06/19/24 15:37	1

Client Sample ID: CH-CCR-W301-0424

Lab Sample ID: 550-217592-16

Date Collected: 04/23/24 09:52
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0081		0.0010		mg/L		04/29/24 09:05	06/19/24 16:32	1

Client Sample ID: CH-CCR-W303-0424

Lab Sample ID: 550-217592-18

Date Collected: 04/23/24 11:16
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0069		0.0010		mg/L		04/29/24 09:05	06/19/24 16:26	1

Client Sample ID: CH-CCR-W304-0424

Lab Sample ID: 550-217592-20

Date Collected: 04/22/24 16:34
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0055		0.0010		mg/L		04/29/24 09:05	06/19/24 16:39	1

Client Sample ID: CH-CCR-W306-0424

Lab Sample ID: 550-217592-22

Date Collected: 04/23/24 14:02
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.014		0.0010		mg/L		04/29/24 09:05	06/19/24 16:46	1

Client Sample ID: CH-CCR-W307R-0424

Lab Sample ID: 550-217592-24

Date Collected: 04/22/24 14:46
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0060		0.0010		mg/L		04/29/24 09:05	06/19/24 16:53	1

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-26

Date Collected: 04/22/24 13:35
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0055		0.0010		mg/L		04/29/24 09:05	06/19/24 17:00	1

Client Sample ID: CH-CCR-FD03-0424

Lab Sample ID: 550-217592-30

Date Collected: 04/22/24 16:20
Matrix: Water
Date Received: 04/26/24 10:48

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0058		0.0010		mg/L		04/29/24 09:05	06/19/24 17:07	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-319930/1-A
Matrix: Water
Analysis Batch: 322714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319930

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		04/29/24 08:59	06/19/24 14:19	1

Lab Sample ID: LCS 550-319930/2-A
Matrix: Water
Analysis Batch: 322714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319930

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	1.06		mg/L		106	85 - 115		

Lab Sample ID: LCSD 550-319930/3-A
Matrix: Water
Analysis Batch: 322714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319930

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium			1.00	1.09		mg/L		109	85 - 115	2	20

Lab Sample ID: MB 550-319932/1-A
Matrix: Water
Analysis Batch: 322725

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319932

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		04/29/24 09:05	06/19/24 16:02	1

Lab Sample ID: LCS 550-319932/2-A
Matrix: Water
Analysis Batch: 322725

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319932

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	1.04		mg/L		104	85 - 115		

Lab Sample ID: LCSD 550-319932/3-A
Matrix: Water
Analysis Batch: 322725

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319932

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium			1.00	1.09		mg/L		109	85 - 115	4	20

Lab Sample ID: 550-217592-18 MS
Matrix: Water
Analysis Batch: 322725

Client Sample ID: CH-CCR-W303-0424
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium	0.0069		1.00	1.17		mg/L		116	70 - 130		

Lab Sample ID: 550-217592-18 MSD
Matrix: Water
Analysis Batch: 322725

Client Sample ID: CH-CCR-W303-0424
Prep Type: Total/NA
Prep Batch: 319932

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	0.0069		1.00	1.15		mg/L		114	70 - 130	2	20

Metals

Prep Batch: 319930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	200.7	
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	200.7	
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	200.7	
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	200.7	
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	200.7	
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	200.7	
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	200.7	
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	

Prep Batch: 319932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	200.7	
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	200.7	
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	200.7	
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	200.7	
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	200.7	
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	200.7	
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	200.7	
MB 550-319932/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-319932/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-319932/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217592-18 MS	CH-CCR-W303-0424	Total/NA	Water	200.7	
550-217592-18 MSD	CH-CCR-W303-0424	Total/NA	Water	200.7	

Analysis Batch: 322714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-2	CH-CCR-M52A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-4	CH-CCR-M53A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-6	CH-CCR-M55A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-8	CH-CCR-MW69A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-10	CH-CCR-MW70M-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-12	CH-CCR-MW73A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217592-14	CH-CCR-MW74M-0424	Total/NA	Water	200.7 Rev 4.4	319930
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319930
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319930
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319930

Analysis Batch: 322725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-16	CH-CCR-W301-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-18	CH-CCR-W303-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-20	CH-CCR-W304-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-22	CH-CCR-W306-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-24	CH-CCR-W307R-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-26	CH-CCR-W308-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-30	CH-CCR-FD03-0424	Total/NA	Water	200.7 Rev 4.4	319932
MB 550-319932/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319932
LCS 550-319932/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319932
LCSD 550-319932/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319932

Metals (Continued)

Analysis Batch: 322725 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217592-18 MS	CH-CCR-W303-0424	Total/NA	Water	200.7 Rev 4.4	319932
550-217592-18 MSD	CH-CCR-W303-0424	Total/NA	Water	200.7 Rev 4.4	319932

Lab Chronicle

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

Job ID: 550-217592-2

Client Sample ID: CH-CCR-M52A-0424
Lab Sample ID: 550-217592-2
Date Collected: 04/23/24 16:29
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	322714	JAC	EET PHX	06/19/24 14:56

Client Sample ID: CH-CCR-M53A-0424
Lab Sample ID: 550-217592-4
Date Collected: 04/23/24 13:04
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	322714	JAC	EET PHX	06/19/24 15:03

Client Sample ID: CH-CCR-M55A-0424
Lab Sample ID: 550-217592-6
Date Collected: 04/22/24 10:49
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	322714	JAC	EET PHX	06/19/24 15:10

Client Sample ID: CH-CCR-MW69A-0424
Lab Sample ID: 550-217592-8
Date Collected: 04/25/24 09:58
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	322714	JAC	EET PHX	06/19/24 15:17

Client Sample ID: CH-CCR-MW70M-0424
Lab Sample ID: 550-217592-10
Date Collected: 04/25/24 11:27
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	322714	JAC	EET PHX	06/19/24 15:23

Client Sample ID: CH-CCR-MW73A-0424
Lab Sample ID: 550-217592-12
Date Collected: 04/24/24 15:27
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	322714	JAC	EET PHX	06/19/24 15:30

Lab Chronicle

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

Job ID: 550-217592-2

Client Sample ID: CH-CCR-MW74M-0424
Lab Sample ID: 550-217592-14
Date Collected: 04/24/24 12:04
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	322714	JAC	EET PHX	06/19/24 15:37

Client Sample ID: CH-CCR-W301-0424
Lab Sample ID: 550-217592-16
Date Collected: 04/23/24 09:52
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	322725	JAC	EET PHX	06/19/24 16:32

Client Sample ID: CH-CCR-W303-0424
Lab Sample ID: 550-217592-18
Date Collected: 04/23/24 11:16
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	322725	JAC	EET PHX	06/19/24 16:26

Client Sample ID: CH-CCR-W304-0424
Lab Sample ID: 550-217592-20
Date Collected: 04/22/24 16:34
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	322725	JAC	EET PHX	06/19/24 16:39

Client Sample ID: CH-CCR-W306-0424
Lab Sample ID: 550-217592-22
Date Collected: 04/23/24 14:02
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	322725	JAC	EET PHX	06/19/24 16:46

Client Sample ID: CH-CCR-W307R-0424
Lab Sample ID: 550-217592-24
Date Collected: 04/22/24 14:46
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	322725	JAC	EET PHX	06/19/24 16:53

Lab Chronicle

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

Job ID: 550-217592-2

Client Sample ID: CH-CCR-W308-0424

Lab Sample ID: 550-217592-26

Date Collected: 04/22/24 13:35

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	322725	JAC	EET PHX	06/19/24 17:00

Client Sample ID: CH-CCR-FD03-0424

Lab Sample ID: 550-217592-30

Date Collected: 04/22/24 16:20

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319932	SGO	EET PHX	04/29/24 09:05
Total/NA	Analysis	200.7 Rev 4.4		1	322725	JAC	EET PHX	06/19/24 17:07

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-217592-2
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Phoenix

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-25

Method Summary

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

Job ID: 550-217592-2

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.7	Preparation, Total Metals	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217592-2

Login Number: 217592
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

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JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-217859-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

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Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Revision 1

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Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
R4	MS/MSD RPD exceeded the method control limit. Recovery met acceptance criteria.

Metals

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
R4	MS/MSD RPD exceeded the method control limit. Recovery met acceptance criteria.
T5	Laboratory not licensed for this parameter

General Chemistry

Qualifier	Qualifier Description
B7	Target analyte detected in method blank at or above method reporting limit. Concentration found in the sample was 10 times above the concentration found in the blank.
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
D5	Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-217859-1 — Eurofins Phoenix

Job Narrative
550-217859-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Revision
This report was revised on 5/29/24 to correct a typographical error in the pH for sample 550-217859-32. This final report replaces the report that was generated on 5/22/24 at 6:25 AM.

Receipt
The samples were received on 5/3/2024 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.0°C, 1.2°C and 1.3°C.

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

Metals
Method 200.7 - Total Recoverable: The instrument blank for analytical batch 280-653128 was more negative than the reporting limit (RL) for Li, and were not reanalyzed because the sample was >10x the blank. The data have been qualified and reported.

Method 200.7 - Total Recoverable: The following sample was diluted due to the presence of S which interferes with Li: CH-CCR-TWX10-0424 (550-217859-32). Elevated reporting limits (RLs) are provided.

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

General Chemistry
Method 2540C_Calcd: The sample duplicate (DUP) precision was outside control limits. Sample non-homogeneity is suspected.

Method 350.1_LL: The continuing calibration blank (CCB) for analytical batch 550-320941 contained ammonia above the method detection limit (MDL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 353.2_Pres: The matrix spike (MS) recoveries for analytical batch 280-653767 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. (280-190959-B-1) and (280-190959-B-1 MS)

Method SM5310_DOC_B - Dissolved: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(CCB 550-320448/22), (CCB 550-320448/34), (CCB 550-320448/4) and (MB 550-320448/6)

Method SM5310_DOC_B - Dissolved: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(CCB 550-320900/33), (CCB 550-320900/4) and (MB 550-320900/6)

Method SM5310B: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

Job ID: 550-217859-1 (Continued)

(CCB 550-320516/21), (CCB 550-320516/33), (CCB 550-320516/4), (CCV 550-320516/34) and (MB 550-320516/6)

Method SM5310B: The following sample was diluted due to the nature of the sample matrix: CH-CCR-TWX5-0424 (550-217859-22). Elevated reporting limits (RLs) are provided.

Method SM5310B: The following blanks have an RPD >10% for consecutive replicates. Results are ND; data was reported.

(CCB 550-320655/23) and (MB 550-320655/6)

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

Sample Summary

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

Job ID: 550-217859-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217859-1	CH-CCR-MW71A-0424	Water	05/01/24 18:02	05/03/24 10:10
550-217859-2	CH-CCR-MW71A-0424	Water	05/01/24 18:02	05/03/24 10:10
550-217859-3	CH-CCR-MW72M-0424	Water	05/01/24 19:11	05/03/24 10:10
550-217859-4	CH-CCR-MW72M-0424	Water	05/01/24 19:11	05/03/24 10:10
550-217859-5	CH-CCR-MW79A-0424	Water	04/30/24 19:04	05/03/24 10:10
550-217859-6	CH-CCR-MW79A-0424	Water	04/30/24 19:04	05/03/24 10:10
550-217859-7	CH-CCR-FD02-0424	Water	04/30/24 12:34	05/03/24 10:10
550-217859-8	CH-CCR-FD02-0424	Water	04/30/24 12:34	05/03/24 10:10
550-217859-9	CH-CCR-W305-0424	Water	05/02/24 10:28	05/03/24 10:10
550-217859-10	CH-CCR-W305-0424	Water	05/02/24 10:28	05/03/24 10:10
550-217859-11	CH-CCR-W314-0424	Water	04/29/24 14:51	05/03/24 10:10
550-217859-12	CH-CCR-W314-0424	Water	04/29/24 14:51	05/03/24 10:10
550-217859-13	CH-CCR-BAP-0424	Water	05/01/24 11:55	05/03/24 10:10
550-217859-14	CH-CCR-BAP-0424	Water	05/01/24 11:55	05/03/24 10:10
550-217859-15	CH-CCR-Petroglyph-0424	Water	05/01/24 10:17	05/03/24 10:10
550-217859-16	CH-CCR-Petroglyph-0424	Water	05/01/24 10:17	05/03/24 10:10
550-217859-17	CH-CCR-TannerWash-0424	Water	05/01/24 09:52	05/03/24 10:10
550-217859-18	CH-CCR-TannerWash-0424	Water	05/01/24 09:52	05/03/24 10:10
550-217859-19	CH-CCR-TWX4-0424	Water	05/01/24 16:49	05/03/24 10:10
550-217859-20	CH-CCR-TWX4-0424	Water	05/01/24 16:49	05/03/24 10:10
550-217859-21	CH-CCR-TWX5-0424	Water	05/01/24 16:31	05/03/24 10:10
550-217859-22	CH-CCR-TWX5-0424	Water	05/01/24 16:31	05/03/24 10:10
550-217859-23	CH-CCR-TWX6-0424	Water	05/01/24 16:16	05/03/24 10:10
550-217859-24	CH-CCR-TWX6-0424	Water	05/01/24 16:16	05/03/24 10:10
550-217859-25	CH-CCR-TWX7-0424	Water	05/01/24 15:56	05/03/24 10:10
550-217859-26	CH-CCR-TWX7-0424	Water	05/01/24 15:56	05/03/24 10:10
550-217859-27	CH-CCR-TWX8-0424	Water	05/01/24 11:10	05/03/24 10:10
550-217859-28	CH-CCR-TWX8-0424	Water	05/01/24 11:10	05/03/24 10:10
550-217859-29	CH-CCR-TWX9-0424	Water	05/01/24 17:07	05/03/24 10:10
550-217859-30	CH-CCR-TWX9-0424	Water	05/01/24 17:07	05/03/24 10:10
550-217859-31	CH-CCR-TWX10-0424	Water	05/01/24 10:50	05/03/24 10:10
550-217859-32	CH-CCR-TWX10-0424	Water	05/01/24 10:50	05/03/24 10:10

Detection Summary

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

Job ID: 550-217859-1

Client Sample ID: CH-CCR-MW71A-0424 — Lab Sample ID: 550-217859-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	5.9		0.010		mg/L	1		200.7	Dissolved
Arsenic	11		10		ug/L	20		200.8 LL	Dissolved
Cobalt	14		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	1.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.2		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW71A-0424 — Lab Sample ID: 550-217859-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.7		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	200		mg/L	100		300.0	Total/NA
Boron	3.6		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	680		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	250		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	5.8		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	17		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2200		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	190	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.010	M1	0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.013		0.010		mg/L	20		200.8 LL	Total/NA
Cobalt	0.014		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.033	M1	0.010		mg/L	20		200.8 LL	Total/NA
Ammonia	0.39		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	87		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	87		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7400		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	14.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW72M-0424 — Lab Sample ID: 550-217859-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.2		0.010		mg/L	1		200.7	Dissolved
Arsenic	18		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	0.95		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.99		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.95		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW72M-0424 — Lab Sample ID: 550-217859-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	38000	D2	1000		mg/L	500		300.0	Total/NA
Sulfate	1100	D2	100		mg/L	50		300.0	Total/NA
Boron	0.40		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	9400	M3 R4	200		mg/L	100		200.7 Rev 4.4	Total/NA
Magnesium	1300	M3 R4	200		mg/L	100		200.7 Rev 4.4	Total/NA
Manganese	3.2		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	220		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	14000	M3 R4	50		mg/L	100		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW72M-0424 (Continued) — Lab Sample ID: 550-217859-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lithium	4600	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.018		0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.14		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.024		0.010		mg/L	20		200.8 LL	Total/NA
Selenium	0.015		0.010		mg/L	20		200.8 LL	Total/NA
Thallium	0.0020		0.0020		mg/L	20		200.8 LL	Total/NA
Ammonia	0.78	B7	0.050		mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.31		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	22		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	22		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	46000		1000		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	14.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW79A-0424 — Lab Sample ID: 550-217859-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	4.0		0.010		mg/L	1		200.7	Dissolved
Cobalt	11		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	0.77		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.77		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.77		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-MW79A-0424 — Lab Sample ID: 550-217859-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2300	D2	100		mg/L	50		300.0	Total/NA
Fluoride	0.63		0.40		mg/L	1		300.0	Total/NA
Sulfate	2200	D2	100		mg/L	50		300.0	Total/NA
Boron	0.34		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	780		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	94		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	11		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2200		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	190	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Barium	0.012		0.010		mg/L	20		200.8 LL	Total/NA
Cobalt	0.011		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.016		0.010		mg/L	20		200.8 LL	Total/NA
Alkalinity as CaCO3	120		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	120		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7000		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	15.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-FD02-0424 — Lab Sample ID: 550-217859-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	4.0		0.010		mg/L	1		200.7	Dissolved
Arsenic	10		10		ug/L	20		200.8 LL	Dissolved
Cobalt	12		10		ug/L	20		200.8 LL	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-FD02-0424 (Continued) — Lab Sample ID: 550-217859-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dissolved Organic Carbon	0.82		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.83		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.82		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-FD02-0424 — Lab Sample ID: 550-217859-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2300	D2	100		mg/L	50		300.0	Total/NA
Fluoride	0.53		0.40		mg/L	1		300.0	Total/NA
Sulfate	2100	D2	100		mg/L	50		300.0	Total/NA
Boron	0.34		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	770		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	94		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	11		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1600		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	180	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.011		0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.012		0.010		mg/L	20		200.8 LL	Total/NA
Cobalt	0.011		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.015		0.010		mg/L	20		200.8 LL	Total/NA
Alkalinity as CaCO3	120		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	120		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7000		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	15.1	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W305-0424 — Lab Sample ID: 550-217859-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.26		0.10		mg/L	1		200.7	Dissolved
Manganese	6.0		0.010		mg/L	1		200.7	Dissolved
Arsenic	12		10		ug/L	20		200.8 LL	Dissolved
Cobalt	18		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	1.9		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.9		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.9		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W305-0424 — Lab Sample ID: 550-217859-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3800	D2	100		mg/L	50		300.0	Total/NA
Sulfate	4400	D2	100		mg/L	50		300.0	Total/NA
Boron	0.45		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	710		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	120		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	6.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.1		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2300		50		mg/L	100		200.7 Rev 4.4	Total/NA
Iron	0.32		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	260	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-W305-0424 (Continued) — Lab Sample ID: 550-217859-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.013		0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.012		0.010		mg/L	20		200.8 LL	Total/NA
Cobalt	0.018		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.025		0.010		mg/L	20		200.8 LL	Total/NA
Ammonia	0.14		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	100		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6900		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	15.3	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W314-0424 — Lab Sample ID: 550-217859-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.31		0.010		mg/L	1		200.7	Dissolved
Cobalt	52		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	1.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.7		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W314-0424 — Lab Sample ID: 550-217859-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2800	D2	100		mg/L	50		300.0	Total/NA
Fluoride	0.75		0.40		mg/L	1		300.0	Total/NA
Sulfate	3500	D2	100		mg/L	50		300.0	Total/NA
Boron	1.5		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	670		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.29		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	310	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Barium	0.010		0.010		mg/L	20		200.8 LL	Total/NA
Cobalt	0.051		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.018		0.010		mg/L	20		200.8 LL	Total/NA
Total Dissolved Solids	7500		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	15.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-BAP-0424 — Lab Sample ID: 550-217859-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.11		0.010		mg/L	1		200.7	Dissolved
Arsenic	16		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	2.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-BAP-0424 — Lab Sample ID: 550-217859-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.6		0.40		mg/L	1		300.0	Total/NA
Sulfate	2500	D2	200		mg/L	100		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-BAP-0424 (Continued) — Lab Sample ID: 550-217859-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	3.5		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	550		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.21		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	270		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.14		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	30		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2000		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	200	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.018		0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.066		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.023		0.010		mg/L	20		200.8 LL	Total/NA
Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7000		100		mg/L	1		SM 2540C	Total/NA
pH	8.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	15.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	2.9		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	2.9		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	2.9		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-Petroglyph-0424 — Lab Sample ID: 550-217859-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	1.4		0.010		mg/L	1		200.7	Dissolved
Arsenic	14		10		ug/L	20		200.8 LL	Dissolved
Cobalt	15		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	1.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.7		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-Petroglyph-0424 — Lab Sample ID: 550-217859-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.7		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	200		mg/L	100		300.0	Total/NA
Boron	3.6		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	660		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.11		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	250		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.4		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	21		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	230	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.016		0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.027		0.010		mg/L	20		200.8 LL	Total/NA
Cobalt	0.015		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.034		0.010		mg/L	20		200.8 LL	Total/NA
Ammonia	0.052		0.050		mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.44		0.10		mg/L	1		353.2	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-Petroglyph-0424 (Continued) — Lab Sample ID: 550-217859-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Alkalinity as CaCO3	81		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	81		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	5200		100		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	16.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.3		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.3		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.3		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TannerWash-0424 — Lab Sample ID: 550-217859-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.4		0.010		mg/L	1		200.7	Dissolved
Arsenic	16		10		ug/L	20		200.8 LL	Dissolved
Cobalt	14		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	3.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	3.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	3.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TannerWash-0424 — Lab Sample ID: 550-217859-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	100		mg/L	50		300.0	Total/NA
Fluoride	3.1		0.40		mg/L	1		300.0	Total/NA
Sulfate	2900	D2	100		mg/L	50		300.0	Total/NA
Boron	3.8		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	640		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	260		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	3.4		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	20		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1900		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	240	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.015		0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.014		0.010		mg/L	20		200.8 LL	Total/NA
Cobalt	0.014		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.034		0.010		mg/L	20		200.8 LL	Total/NA
Ammonia	0.31		0.050		mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.17		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	81		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	81		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7400		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	16.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	2.9		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	2.9		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	2.9		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX4-0424 — Lab Sample ID: 550-217859-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	5.1		0.010		mg/L	1		200.7	Dissolved
Arsenic	11		10		ug/L	20		200.8 LL	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-TWX4-0424 (Continued) — Lab Sample ID: 550-217859-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Cobalt	14		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	6.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	6.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	6.6		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX4-0424 — Lab Sample ID: 550-217859-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1900	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.7		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	200		mg/L	100		300.0	Total/NA
Boron	3.6		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	640		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.20		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	250		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.8		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	19		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1700		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	240	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Cobalt	0.015		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.054		0.010		mg/L	20		200.8 LL	Total/NA
Ammonia	0.20		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	67		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	67		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7600		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	16.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	6.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	6.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	6.1		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX5-0424 — Lab Sample ID: 550-217859-21

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.4		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.4		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	12		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	0.93		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.93		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.93		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX5-0424 — Lab Sample ID: 550-217859-22

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1900	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.9		0.40		mg/L	1		300.0	Total/NA
Sulfate	2900	D2	200		mg/L	100		300.0	Total/NA
Boron	3.7		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	650		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.23		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	260		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	3.9		0.010		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-TWX5-0424 (Continued) — Lab Sample ID: 550-217859-22

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Potassium	18		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2400		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	230	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0031		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0067		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00024		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.0075		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.012		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.018		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.052		0.00050		mg/L	1		200.8 LL	Total/NA
Thallium	0.00013		0.00010		mg/L	1		200.8 LL	Total/NA
Ammonia	0.38		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	62		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	62		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7400		100		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	16.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-TWX6-0424 — Lab Sample ID: 550-217859-23

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	2.9		0.010		mg/L	1		200.7	Dissolved
Arsenic	4.3		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	15		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.1		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.1		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX6-0424 — Lab Sample ID: 550-217859-24

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	100		mg/L	50		300.0	Total/NA
Fluoride	2.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	100		mg/L	50		300.0	Total/NA
Boron	3.6		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	660	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.45		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	230	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.8		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	15		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100	M3	50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	250	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0056		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.012		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00045		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.032		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.016		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.018		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.045		0.00050		mg/L	1		200.8 LL	Total/NA
Nitrate Nitrite as N	0.19		0.10		mg/L	1		353.2	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-TWX6-0424 (Continued) — Lab Sample ID: 550-217859-24

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Alkalinity as CaCO3	70		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	70		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7700		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.0	D1	1.0		mg/L	2		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.0	D1	1.0		mg/L	2		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.0	D1	1.0		mg/L	2		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX7-0424 — Lab Sample ID: 550-217859-25

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.8		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.0		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	8.3		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.9		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.9		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.9		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX7-0424 — Lab Sample ID: 550-217859-26

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2100	D2	100		mg/L	50		300.0	Total/NA
Fluoride	2.1		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	100		mg/L	50		300.0	Total/NA
Boron	3.5		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	670		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	2.9		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	220		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.4		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	19		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	200	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0071		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0031		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00061		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.35		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.017		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.055		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.050		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	83		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	83		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7700		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	15.9	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.2	D1	1.0		mg/L	2		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.2	D1	1.0		mg/L	2		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.2	D1	1.0		mg/L	2		SM 5310B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 550-217859-1

Client Sample ID: CH-CCR-TWX8-0424 — Lab Sample ID: 550-217859-27

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.15		0.10		mg/L	1		200.7	Dissolved
Manganese	6.0		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.6		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	20		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.5		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX8-0424 — Lab Sample ID: 550-217859-28

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2200	D2	100		mg/L	50		300.0	Total/NA
Fluoride	2.1		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	100		mg/L	50		300.0	Total/NA
Boron	3.3		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	650		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.4		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	220		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	6.5		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	17		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1800		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	210	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0063		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.015		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.0016		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.50		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.018		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.029		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.039		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.053		0.050		mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.12		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	92		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	92		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7300		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	16.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.6		1.0		mg/L	2		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.6		1.0		mg/L	2		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.6		1.0		mg/L	2		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX9-0424 — Lab Sample ID: 550-217859-29

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	4.2		0.010		mg/L	1		200.7	Dissolved
Cobalt	11		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	3.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	3.8		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	3.8		0.50		mg/L	1		SM 5310B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-TWX9-0424 — Lab Sample ID: 550-217859-30

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2200	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.5		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	200		mg/L	100		300.0	Total/NA
Boron	3.1		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	700		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.3		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	220		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	20		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	250	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Barium	0.011		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00038		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.10		0.020		mg/L	20		200.8 LL	Total/NA
Cobalt	0.014		0.010		mg/L	20		200.8 LL	Total/NA
Lead	0.0012		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.042		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.12		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	130		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8000		100		mg/L	1		SM 2540C	Total/NA
pH	7.8	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	16.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	3.7		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	3.7		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	3.7		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX10-0424 — Lab Sample ID: 550-217859-31

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.14		0.010		mg/L	1		200.7	Dissolved
Cobalt	16		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	2.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.4		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.4		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-TWX10-0424 — Lab Sample ID: 550-217859-32

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3700	D2	100		mg/L	50		300.0	Total/NA
Sulfate	2700	D2	100		mg/L	50		300.0	Total/NA
Boron	0.39		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	720		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	9.2		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	170		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.3		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.9		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2200		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	480	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Barium	0.11		0.010		mg/L	20		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-TWX10-0424 (Continued)

Lab Sample ID: 550-217859-32

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chromium	0.18		0.020		mg/L	20		200.8 LL	Total/NA
Cobalt	0.025		0.010		mg/L	20		200.8 LL	Total/NA
Lead	0.055		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.021		0.010		mg/L	20		200.8 LL	Total/NA
Nitrate Nitrite as N	0.16		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	86		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	86		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	10000		100		mg/L	1		SM 2540C	Total/NA
pH	7.8	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	16.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	2.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	2.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	2.1		0.50		mg/L	1		SM 5310B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-MW71A-0424

Lab Sample ID: 550-217859-1
Matrix: Water
Date Collected: 05/01/24 18:02
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 19:47	1
Manganese	**5.9**		0.010		mg/L		05/07/24 10:30	05/13/24 19:47	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**11**		10		ug/L		05/07/24 09:47	05/15/24 12:50	20
Cobalt	**14**		10		ug/L		05/07/24 09:47	05/15/24 12:50	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.2**		0.50		mg/L			05/06/24 19:08	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.2**		0.50		mg/L			05/06/24 19:08	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.2**		0.50		mg/L			05/06/24 19:08	1

Client Sample ID: CH-CCR-MW71A-0424

Lab Sample ID: 550-217859-2
Matrix: Water
Date Collected: 05/01/24 18:02
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**	**D2**	200		mg/L			05/12/24 14:08	100
Fluoride	**2.7**		0.40		mg/L			05/12/24 13:50	1
Sulfate	**2800**	**D2**	200		mg/L			05/12/24 14:08	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.6**		0.050		mg/L		05/07/24 10:30	05/13/24 19:43	1
Calcium	**680**		2.0		mg/L		05/07/24 10:30	05/13/24 19:43	1
Magnesium	**250**		2.0		mg/L		05/07/24 10:30	05/13/24 19:43	1
Manganese	**5.8**		0.010		mg/L		05/07/24 10:30	05/13/24 19:43	1
Potassium	**17**		0.50		mg/L		05/07/24 10:30	05/13/24 19:43	1
Sodium	**2200**		50		mg/L		05/07/24 10:30	05/14/24 20:32	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 19:43	1
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 19:43	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**190**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 19:05	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 12:47	20
Arsenic	**0.010**	**M1**	0.010		mg/L		05/07/24 09:47	05/15/24 12:47	20
Barium	**0.013**		0.010		mg/L		05/07/24 09:47	05/15/24 12:47	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 12:47	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 12:47	20
Cobalt	**0.014**		0.010		mg/L		05/07/24 09:47	05/15/24 12:47	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 12:47	20
Molybdenum	**0.033**	**M1**	0.010		mg/L		05/07/24 09:47	05/15/24 12:47	20

Client Sample ID: CH-CCR-MW71A-0424

Lab Sample ID: 550-217859-2
Date Collected: 05/01/24 18:02
Matrix: Water
Date Received: 05/03/24 10:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND	M1	0.010		mg/L		05/07/24 09:47	05/15/24 12:47	20
Thallium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 12:47	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/10/24 12:08	05/10/24 15:25	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.39**		0.050		mg/L			05/17/24 14:27	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/14/24 14:59	1
Alkalinity as CaCO3 (SM 2320B)	**87**		6.0		mg/L			05/09/24 12:44	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 12:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**87**		6.0		mg/L			05/09/24 12:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:44	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:44	1
Total Dissolved Solids (SM 2540C)	**7400**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/14/24 15:11	1
Temperature (SM 4500 H+ B)	**14.7**	**H5 T5**	0.1		Degrees C			05/14/24 15:11	1

Client Sample ID: CH-CCR-MW72M-0424

Lab Sample ID: 550-217859-3
Date Collected: 05/01/24 19:11
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 19:40	1
Manganese	**3.2**		0.010		mg/L		05/07/24 10:30	05/13/24 19:40	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**18**		10		ug/L		05/07/24 09:47	05/15/24 12:52	20
Cobalt	ND		10		ug/L		05/07/24 09:47	05/15/24 12:52	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.95**		0.50		mg/L			05/06/24 19:23	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.99**		0.50		mg/L			05/06/24 19:23	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.95**		0.50		mg/L			05/06/24 19:23	1

Client Sample ID: CH-CCR-MW72M-0424

Lab Sample ID: 550-217859-4
Date Collected: 05/01/24 19:11
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**38000**	**D2**	1000		mg/L			05/13/24 17:27	500

Client Sample ID: CH-CCR-MW72M-0424

Date Collected: 05/01/24 19:11
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217859-4

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			05/12/24 15:04	1
Sulfate	**1100**	**D2**	100		mg/L			05/12/24 15:22	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.40**		0.050		mg/L		05/07/24 10:30	05/13/24 19:36	1
Calcium	**9400**	**M3 R4**	200		mg/L		05/07/24 10:30	05/14/24 20:29	100
Magnesium	**1300**	**M3 R4**	200		mg/L		05/07/24 10:30	05/14/24 20:29	100
Manganese	**3.2**		0.010		mg/L		05/07/24 10:30	05/13/24 19:36	1
Potassium	**220**		0.50		mg/L		05/07/24 10:30	05/13/24 19:36	1
Sodium	**14000**	**M3 R4**	50		mg/L		05/07/24 10:30	05/14/24 20:29	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 19:36	1
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 19:36	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**4600**	**T5**	20		ug/L		05/06/24 15:36	05/10/24 21:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 12:54	20
Arsenic	**0.018**		0.010		mg/L		05/07/24 09:47	05/15/24 12:54	20
Barium	**0.14**		0.010		mg/L		05/07/24 09:47	05/15/24 12:54	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 12:54	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 12:54	20
Cobalt	ND		0.010		mg/L		05/07/24 09:47	05/15/24 12:54	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 12:54	20
Molybdenum	**0.024**		0.010		mg/L		05/07/24 09:47	05/15/24 12:54	20
Selenium	**0.015**		0.010		mg/L		05/07/24 09:47	05/15/24 12:54	20
Thallium	**0.0020**		0.0020		mg/L		05/07/24 09:47	05/15/24 12:54	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/10/24 12:08	05/10/24 15:27	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.78**	**B7**	0.050		mg/L			05/14/24 21:26	1
Nitrate Nitrite as N (EPA 353.2)	**0.31**		0.10		mg/L			05/14/24 15:01	1
Alkalinity as CaCO3 (SM 2320B)	**22**		6.0		mg/L			05/09/24 12:50	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 12:50	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**22**		6.0		mg/L			05/09/24 12:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:50	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:50	1
Total Dissolved Solids (SM 2540C)	**46000**		1000		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/14/24 15:13	1
Temperature (SM 4500 H+ B)	**14.6**	**H5 T5**	0.1		Degrees C			05/14/24 15:13	1

Client Sample ID: CH-CCR-MW79A-0424

Lab Sample ID: 550-217859-5

Date Collected: 04/30/24 19:04

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 19:50	1
Manganese	**4.0**		0.010		mg/L		05/07/24 10:30	05/13/24 19:50	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		05/07/24 09:47	05/15/24 12:56	20
Cobalt	**11**		10		ug/L		05/07/24 09:47	05/15/24 12:56	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.77**		0.50		mg/L			05/06/24 19:37	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.77**		0.50		mg/L			05/06/24 19:37	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.77**		0.50		mg/L			05/06/24 19:37	1

Client Sample ID: CH-CCR-MW79A-0424

Lab Sample ID: 550-217859-6

Date Collected: 04/30/24 19:04

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2300**	**D2**	100		mg/L			05/12/24 15:59	50
Fluoride	**0.63**		0.40		mg/L			05/12/24 15:41	1
Sulfate	**2200**	**D2**	100		mg/L			05/12/24 15:59	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.34**		0.050		mg/L		05/07/24 10:30	05/13/24 19:53	1
Calcium	**780**		2.0		mg/L		05/07/24 10:30	05/13/24 19:53	1
Magnesium	**94**		2.0		mg/L		05/07/24 10:30	05/13/24 19:53	1
Manganese	**4.0**		0.010		mg/L		05/07/24 10:30	05/13/24 19:53	1
Potassium	**11**		0.50		mg/L		05/07/24 10:30	05/13/24 19:53	1
Sodium	**2200**		50		mg/L		05/07/24 10:30	05/14/24 20:36	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 19:53	1
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 19:53	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**190**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 22:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 12:58	20
Arsenic	ND		0.010		mg/L		05/07/24 09:47	05/15/24 12:58	20
Barium	**0.012**		0.010		mg/L		05/07/24 09:47	05/15/24 12:58	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 12:58	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 12:58	20
Cobalt	**0.011**		0.010		mg/L		05/07/24 09:47	05/15/24 12:58	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 12:58	20
Molybdenum	**0.016**		0.010		mg/L		05/07/24 09:47	05/15/24 12:58	20

Client Sample ID: CH-CCR-MW79A-0424

Lab Sample ID: 550-217859-6

Date Collected: 04/30/24 19:04

Matrix: Water

Date Received: 05/03/24 10:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.010		mg/L		05/07/24 09:47	05/15/24 12:58	20
Thallium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 12:58	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/10/24 12:08	05/10/24 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 14:29	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/14/24 15:03	1
Alkalinity as CaCO3 (SM 2320B)	**120**		6.0		mg/L			05/09/24 12:55	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 12:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**120**		6.0		mg/L			05/09/24 12:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:55	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:55	1
Total Dissolved Solids (SM 2540C)	**7000**		100		mg/L			05/06/24 11:18	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/14/24 15:15	1
Temperature (SM 4500 H+ B)	**15.0**	**H5 T5**	0.1		Degrees C			05/14/24 15:15	1

Client Sample ID: CH-CCR-FD02-0424

Lab Sample ID: 550-217859-7

Date Collected: 04/30/24 12:34

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 19:57	1
Manganese	**4.0**		0.010		mg/L		05/07/24 10:30	05/13/24 19:57	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**10**		10		ug/L		05/07/24 09:47	05/15/24 13:00	20
Cobalt	**12**		10		ug/L		05/07/24 09:47	05/15/24 13:00	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.82**		0.50		mg/L			05/06/24 19:49	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.83**		0.50		mg/L			05/06/24 19:49	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.82**		0.50		mg/L			05/06/24 19:49	1

Client Sample ID: CH-CCR-FD02-0424

Lab Sample ID: 550-217859-8

Date Collected: 04/30/24 12:34

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2300**	**D2**	100		mg/L			05/12/24 17:31	50

Client Sample ID: CH-CCR-FD02-0424

Lab Sample ID: 550-217859-8

Date Collected: 04/30/24 12:34

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.53**		0.40		mg/L			05/12/24 16:17	1
Sulfate	**2100**	**D2**	100		mg/L			05/12/24 17:31	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.34**		0.050		mg/L		05/07/24 10:30	05/13/24 20:00	1
Calcium	**770**		2.0		mg/L		05/07/24 10:30	05/13/24 20:00	1
Magnesium	**94**		2.0		mg/L		05/07/24 10:30	05/13/24 20:00	1
Manganese	**4.0**		0.010		mg/L		05/07/24 10:30	05/13/24 20:00	1
Potassium	**11**		0.50		mg/L		05/07/24 10:30	05/13/24 20:00	1
Sodium	**1600**		50		mg/L		05/07/24 10:30	05/14/24 20:39	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 20:00	1
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 20:00	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**180**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 22:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:02	20
Arsenic	**0.011**		0.010		mg/L		05/07/24 09:47	05/15/24 13:02	20
Barium	**0.012**		0.010		mg/L		05/07/24 09:47	05/15/24 13:02	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:02	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:02	20
Cobalt	**0.011**		0.010		mg/L		05/07/24 09:47	05/15/24 13:02	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:02	20
Molybdenum	**0.015**		0.010		mg/L		05/07/24 09:47	05/15/24 13:02	20
Selenium	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:02	20
Thallium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:02	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/10/24 12:08	05/10/24 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 14:30	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/14/24 15:05	1
Alkalinity as CaCO3 (SM 2320B)	**120**		6.0		mg/L			05/13/24 10:40	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 10:40	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**120**		6.0		mg/L			05/13/24 10:40	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 10:40	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 10:40	1
Total Dissolved Solids (SM 2540C)	**7000**		100		mg/L			05/06/24 11:18	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/14/24 15:17	1
Temperature (SM 4500 H+ B)	**15.1**	**H5 T5**	0.1		Degrees C			05/14/24 15:17	1

Client Sample ID: CH-CCR-W305-0424

Lab Sample ID: 550-217859-9
Matrix: Water
Date Collected: 05/02/24 10:28
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.26		0.10		mg/L		05/07/24 10:30	05/13/24 20:04	1
Manganese	6.0		0.010		mg/L		05/07/24 10:30	05/13/24 20:04	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12		10		ug/L		05/07/24 09:47	05/15/24 13:04	20
Cobalt	18		10		ug/L		05/07/24 09:47	05/15/24 13:04	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.9		0.50		mg/L			05/13/24 17:34	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.9		0.50		mg/L			05/13/24 17:34	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.9		0.50		mg/L			05/13/24 17:34	1

Client Sample ID: CH-CCR-W305-0424

Lab Sample ID: 550-217859-10
Matrix: Water
Date Collected: 05/02/24 10:28
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3800	D2	100		mg/L			05/12/24 18:08	50
Fluoride	ND		0.40		mg/L			05/12/24 17:49	1
Sulfate	4400	D2	100		mg/L			05/12/24 18:08	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.45		0.050		mg/L		05/07/24 10:30	05/13/24 20:07	1
Calcium	710		2.0		mg/L		05/07/24 10:30	05/13/24 20:07	1
Magnesium	120		2.0		mg/L		05/07/24 10:30	05/13/24 20:07	1
Manganese	6.1		0.010		mg/L		05/07/24 10:30	05/13/24 20:07	1
Potassium	2.1		0.50		mg/L		05/07/24 10:30	05/13/24 20:07	1
Sodium	2300		50		mg/L		05/07/24 10:30	05/14/24 20:43	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 20:07	1
Iron	0.32		0.10		mg/L		05/07/24 10:30	05/13/24 20:07	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	260	T5	20		ug/L		05/06/24 15:36	05/13/24 22:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:06	20
Arsenic	0.013		0.010		mg/L		05/07/24 09:47	05/15/24 13:06	20
Barium	0.012		0.010		mg/L		05/07/24 09:47	05/15/24 13:06	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:06	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:06	20
Cobalt	0.018		0.010		mg/L		05/07/24 09:47	05/15/24 13:06	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:06	20
Molybdenum	0.025		0.010		mg/L		05/07/24 09:47	05/15/24 13:06	20

Client Sample ID: CH-CCR-W305-0424

Lab Sample ID: 550-217859-10

Date Collected: 05/02/24 10:28

Matrix: Water

Date Received: 05/03/24 10:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:06	20
Thallium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:06	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/10/24 12:08	05/10/24 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.14**		0.050		mg/L			05/17/24 14:32	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/14/24 15:07	1
Alkalinity as CaCO3 (SM 2320B)	**100**		6.0		mg/L			05/13/24 10:53	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 10:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**100**		6.0		mg/L			05/13/24 10:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 10:53	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 10:53	1
Total Dissolved Solids (SM 2540C)	**6900**		100		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/14/24 15:19	1
Temperature (SM 4500 H+ B)	**15.3**	**H5 T5**	0.1		Degrees C			05/14/24 15:19	1

Client Sample ID: CH-CCR-W314-0424

Lab Sample ID: 550-217859-11

Date Collected: 04/29/24 14:51

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 20:17	1
Manganese	**0.31**		0.010		mg/L		05/07/24 10:30	05/13/24 20:17	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		05/07/24 09:47	05/15/24 13:15	20
Cobalt	**52**		10		ug/L		05/07/24 09:47	05/15/24 13:15	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.7**		0.50		mg/L			05/13/24 17:49	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.7**		0.50		mg/L			05/13/24 17:49	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.7**		0.50		mg/L			05/13/24 17:49	1

Client Sample ID: CH-CCR-W314-0424

Lab Sample ID: 550-217859-12

Date Collected: 04/29/24 14:51

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2800**	**D2**	100		mg/L			05/12/24 18:45	50

Client Sample ID: CH-CCR-W314-0424

Lab Sample ID: 550-217859-12
Date Collected: 04/29/24 14:51
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.75**		0.40		mg/L			05/12/24 18:26	1
Sulfate	**3500**	**D2**	100		mg/L			05/12/24 18:45	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.5**		0.050		mg/L		05/07/24 10:30	05/13/24 20:21	1
Calcium	**670**		2.0		mg/L		05/07/24 10:30	05/13/24 20:21	1
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 20:21	1
Manganese	**0.29**		0.010		mg/L		05/07/24 10:30	05/13/24 20:21	1
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 20:21	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**310**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 22:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:17	20
Arsenic	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:17	20
Barium	**0.010**		0.010		mg/L		05/07/24 09:47	05/15/24 13:17	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:17	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:17	20
Cobalt	**0.051**		0.010		mg/L		05/07/24 09:47	05/15/24 13:17	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:17	20
Molybdenum	**0.018**		0.010		mg/L		05/07/24 09:47	05/15/24 13:17	20
Selenium	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:17	20
Thallium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:17	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/10/24 12:08	05/10/24 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 14:33	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/14/24 15:09	1
Total Dissolved Solids (SM 2540C)	**7500**		100		mg/L			05/06/24 11:18	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/14/24 15:21	1
Temperature (SM 4500 H+ B)	**15.4**	**H5 T5**	0.1		Degrees C			05/14/24 15:21	1

Client Sample ID: CH-CCR-BAP-0424

Lab Sample ID: 550-217859-13
Date Collected: 05/01/24 11:55
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 20:24	1
Manganese	**0.11**		0.010		mg/L		05/07/24 10:30	05/13/24 20:24	1

Client Sample ID: CH-CCR-BAP-0424

Lab Sample ID: 550-217859-13

Date Collected: 05/01/24 11:55

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**16**		10		ug/L		05/07/24 09:47	05/15/24 13:19	20
Cobalt	ND		10		ug/L		05/07/24 09:47	05/15/24 13:19	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.1**		0.50		mg/L			05/13/24 18:01	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.1**		0.50		mg/L			05/13/24 18:01	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.1**		0.50		mg/L			05/13/24 18:01	1

Client Sample ID: CH-CCR-BAP-0424

Lab Sample ID: 550-217859-14

Date Collected: 05/01/24 11:55

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1700**	**D2**	200		mg/L			05/12/24 19:21	100
Fluoride	**2.6**		0.40		mg/L			05/12/24 19:03	1
Sulfate	**2500**	**D2**	200		mg/L			05/12/24 19:21	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.5**		0.050		mg/L		05/07/24 10:30	05/13/24 20:27	1
Calcium	**550**		2.0		mg/L		05/07/24 10:30	05/13/24 20:27	1
Iron	**0.21**		0.10		mg/L		05/07/24 10:30	05/13/24 20:27	1
Magnesium	**270**		2.0		mg/L		05/07/24 10:30	05/13/24 20:27	1
Manganese	**0.14**		0.010		mg/L		05/07/24 10:30	05/13/24 20:27	1
Potassium	**30**		0.50		mg/L		05/07/24 10:30	05/13/24 20:27	1
Sodium	**2000**		50		mg/L		05/07/24 10:30	05/14/24 20:46	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 20:27	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**200**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 22:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:21	20
Arsenic	**0.018**		0.010		mg/L		05/07/24 09:47	05/15/24 13:21	20
Barium	**0.066**		0.010		mg/L		05/07/24 09:47	05/15/24 13:21	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:21	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:21	20
Cobalt	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:21	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:21	20
Molybdenum	**0.023**		0.010		mg/L		05/07/24 09:47	05/15/24 13:21	20
Selenium	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:21	20
Thallium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:21	20

Client Sample ID: CH-CCR-BAP-0424

Lab Sample ID: 550-217859-14

Date Collected: 05/01/24 11:55

Matrix: Water

Date Received: 05/03/24 10:10

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 14:35	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/14/24 15:11	1
Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			05/13/24 10:59	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 10:59	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			05/13/24 10:59	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 10:59	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 10:59	1
Total Dissolved Solids (SM 2540C)	**7000**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**8.7**	**H5**	1.7		SU			05/14/24 15:30	1
Temperature (SM 4500 H+ B)	**15.7**	**H5 T5**	0.1		Degrees C			05/14/24 15:30	1
Total Organic Carbon (SM 5310B)	**2.9**		0.50		mg/L			05/07/24 17:30	1
Total Organic Carbon - Duplicates (SM 5310B)	**2.9**		0.50		mg/L			05/07/24 17:30	1
Total Organic Carbon - Quad (SM 5310B)	**2.9**		0.50		mg/L			05/07/24 17:30	1

Client Sample ID: CH-CCR-Petroglyph-0424

Lab Sample ID: 550-217859-15

Date Collected: 05/01/24 10:17

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 20:31	1
Manganese	**1.4**		0.010		mg/L		05/07/24 10:30	05/13/24 20:31	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**14**		10		ug/L		05/07/24 09:47	05/15/24 13:23	20
Cobalt	**15**		10		ug/L		05/07/24 09:47	05/15/24 13:23	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.7**		0.50		mg/L			05/13/24 18:13	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.7**		0.50		mg/L			05/13/24 18:13	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.7**		0.50		mg/L			05/13/24 18:13	1

Client Sample ID: CH-CCR-Petroglyph-0424

Lab Sample ID: 550-217859-16

Date Collected: 05/01/24 10:17

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**	**D2**	200		mg/L			05/12/24 19:58	100
Fluoride	**2.7**		0.40		mg/L			05/12/24 19:40	1
Sulfate	**2800**	**D2**	200		mg/L			05/12/24 19:58	100

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

Job ID: 550-217859-1

Client Sample ID: CH-CCR-Petroglyph-0424

Date Collected: 05/01/24 10:17
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217859-16

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.6**		0.050		mg/L		05/07/24 10:30	05/13/24 20:34	1
Calcium	**660**		2.0		mg/L		05/07/24 10:30	05/13/24 20:34	1
Iron	**0.11**		0.10		mg/L		05/07/24 10:30	05/13/24 20:34	1
Magnesium	**250**		2.0		mg/L		05/07/24 10:30	05/13/24 20:34	1
Manganese	**1.4**		0.010		mg/L		05/07/24 10:30	05/13/24 20:34	1
Potassium	**21**		0.50		mg/L		05/07/24 10:30	05/13/24 20:34	1
Sodium	**2100**		50		mg/L		05/07/24 10:30	05/14/24 20:49	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 20:34	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**230**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 23:10	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:25	20
Arsenic	**0.016**		0.010		mg/L		05/07/24 09:47	05/15/24 13:25	20
Barium	**0.027**		0.010		mg/L		05/07/24 09:47	05/15/24 13:25	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:25	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:25	20
Cobalt	**0.015**		0.010		mg/L		05/07/24 09:47	05/15/24 13:25	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:25	20
Molybdenum	**0.034**		0.010		mg/L		05/07/24 09:47	05/15/24 13:25	20
Selenium	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:25	20
Thallium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:25	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.052**		0.050		mg/L			05/17/24 14:36	1
Nitrate Nitrite as N (EPA 353.2)	**0.44**		0.10		mg/L			05/14/24 15:13	1
Alkalinity as CaCO3 (SM 2320B)	**81**		6.0		mg/L			05/13/24 11:05	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 11:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**81**		6.0		mg/L			05/13/24 11:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:05	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:05	1
Total Dissolved Solids (SM 2540C)	**5200**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			05/14/24 15:32	1
Temperature (SM 4500 H+ B)	**16.2**	**H5 T5**	0.1		Degrees C			05/14/24 15:32	1
Total Organic Carbon (SM 5310B)	**1.3**		0.50		mg/L			05/07/24 17:42	1
Total Organic Carbon - Duplicates (SM 5310B)	**1.3**		0.50		mg/L			05/07/24 17:42	1
Total Organic Carbon - Quad (SM 5310B)	**1.3**		0.50		mg/L			05/07/24 17:42	1

Client Sample ID: CH-CCR-TannerWash-0424

Lab Sample ID: 550-217859-17

Date Collected: 05/01/24 09:52

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 20:37	1
Manganese	**3.4**		0.010		mg/L		05/07/24 10:30	05/13/24 20:37	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**16**		10		ug/L		05/07/24 09:47	05/15/24 13:27	20
Cobalt	**14**		10		ug/L		05/07/24 09:47	05/15/24 13:27	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**3.1**		0.50		mg/L			05/13/24 18:25	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**3.1**		0.50		mg/L			05/13/24 18:25	1
Dissolved Organic Carbon - Quad (SM 5310B)	**3.1**		0.50		mg/L			05/13/24 18:25	1

Client Sample ID: CH-CCR-TannerWash-0424

Lab Sample ID: 550-217859-18

Date Collected: 05/01/24 09:52

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**	**D2**	100		mg/L			05/12/24 21:30	50
Fluoride	**3.1**		0.40		mg/L			05/12/24 21:12	1
Sulfate	**2900**	**D2**	100		mg/L			05/12/24 21:30	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.8**		0.050		mg/L		05/07/24 10:30	05/13/24 20:41	1
Calcium	**640**		2.0		mg/L		05/07/24 10:30	05/13/24 20:41	1
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 20:41	1
Magnesium	**260**		2.0		mg/L		05/07/24 10:30	05/13/24 20:41	1
Manganese	**3.4**		0.010		mg/L		05/07/24 10:30	05/13/24 20:41	1
Potassium	**20**		0.50		mg/L		05/07/24 10:30	05/13/24 20:41	1
Sodium	**1900**		50		mg/L		05/07/24 10:30	05/14/24 20:53	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 20:41	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**240**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 23:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:29	20
Arsenic	**0.015**		0.010		mg/L		05/07/24 09:47	05/15/24 13:29	20
Barium	**0.014**		0.010		mg/L		05/07/24 09:47	05/15/24 13:29	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:29	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:29	20
Cobalt	**0.014**		0.010		mg/L		05/07/24 09:47	05/15/24 13:29	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:29	20
Molybdenum	**0.034**		0.010		mg/L		05/07/24 09:47	05/15/24 13:29	20

Client Sample ID: CH-CCR-TannerWash-0424

Lab Sample ID: 550-217859-18

Date Collected: 05/01/24 09:52

Matrix: Water

Date Received: 05/03/24 10:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:29	20
Thallium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:29	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.31**		0.050		mg/L			05/17/24 14:47	1
Nitrate Nitrite as N (EPA 353.2)	**0.17**		0.10		mg/L			05/15/24 19:19	1
Alkalinity as CaCO3 (SM 2320B)	**81**		6.0		mg/L			05/13/24 11:11	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 11:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**81**		6.0		mg/L			05/13/24 11:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:11	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:11	1
Total Dissolved Solids (SM 2540C)	**7400**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/14/24 15:34	1
Temperature (SM 4500 H+ B)	**16.9**	**H5 T5**	0.1		Degrees C			05/14/24 15:34	1
Total Organic Carbon (SM 5310B)	**2.9**		0.50		mg/L			05/07/24 17:57	1
Total Organic Carbon - Duplicates (SM 5310B)	**2.9**		0.50		mg/L			05/07/24 17:57	1
Total Organic Carbon - Quad (SM 5310B)	**2.9**		0.50		mg/L			05/07/24 17:57	1

Client Sample ID: CH-CCR-TWX4-0424

Lab Sample ID: 550-217859-19

Date Collected: 05/01/24 16:49

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 20:44	1
Manganese	**5.1**		0.010		mg/L		05/07/24 10:30	05/13/24 20:44	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**11**		10		ug/L		05/07/24 09:47	05/15/24 13:31	20
Cobalt	**14**		10		ug/L		05/07/24 09:47	05/15/24 13:31	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**6.6**		0.50		mg/L			05/13/24 18:37	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**6.6**		0.50		mg/L			05/13/24 18:37	1
Dissolved Organic Carbon - Quad (SM 5310B)	**6.6**		0.50		mg/L			05/13/24 18:37	1

Client Sample ID: CH-CCR-TWX4-0424

Date Collected: 05/01/24 16:49
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217859-20

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1900**	**D2**	200		mg/L			05/12/24 22:07	100
Fluoride	**2.7**		0.40		mg/L			05/12/24 21:49	1
Sulfate	**2800**	**D2**	200		mg/L			05/12/24 22:07	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.6**		0.050		mg/L		05/07/24 10:30	05/13/24 20:48	1
Calcium	**640**		2.0		mg/L		05/07/24 10:30	05/13/24 20:48	1
Iron	**0.20**		0.10		mg/L		05/07/24 10:30	05/13/24 20:48	1
Magnesium	**250**		2.0		mg/L		05/07/24 10:30	05/13/24 20:48	1
Manganese	**4.8**		0.010		mg/L		05/07/24 10:30	05/13/24 20:48	1
Potassium	**19**		0.50		mg/L		05/07/24 10:30	05/13/24 20:48	1
Sodium	**1700**		50		mg/L		05/07/24 10:30	05/14/24 20:56	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 20:48	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**240**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 23:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:33	20
Arsenic	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:33	20
Barium	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:33	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:33	20
Chromium	ND		0.020		mg/L		05/07/24 09:47	05/15/24 13:33	20
Cobalt	**0.015**		0.010		mg/L		05/07/24 09:47	05/15/24 13:33	20
Lead	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:33	20
Molybdenum	**0.054**		0.010		mg/L		05/07/24 09:47	05/15/24 13:33	20
Selenium	ND		0.010		mg/L		05/07/24 09:47	05/15/24 13:33	20
Thallium	ND		0.0020		mg/L		05/07/24 09:47	05/15/24 13:33	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.20**		0.050		mg/L			05/17/24 14:51	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/15/24 20:31	1
Alkalinity as CaCO3 (SM 2320B)	**67**		6.0		mg/L			05/13/24 11:17	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 11:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**67**		6.0		mg/L			05/13/24 11:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:17	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:17	1
Total Dissolved Solids (SM 2540C)	**7600**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/14/24 15:38	1
Temperature (SM 4500 H+ B)	**16.4**	**H5 T5**	0.1		Degrees C			05/14/24 15:38	1
Total Organic Carbon (SM 5310B)	**6.1**		0.50		mg/L			05/07/24 18:10	1
Total Organic Carbon - Duplicates (SM 5310B)	**6.1**		0.50		mg/L			05/07/24 18:10	1
Total Organic Carbon - Quad (SM 5310B)	**6.1**		0.50		mg/L			05/07/24 18:10	1

Client Sample ID: CH-CCR-TWX5-0424

Lab Sample ID: 550-217859-21

Date Collected: 05/01/24 16:31

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:36	05/13/24 18:08	1
Manganese	**3.4**		0.010		mg/L		05/07/24 10:36	05/13/24 18:08	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.4**		0.50		ug/L		05/07/24 09:54	05/09/24 17:02	1
Cobalt	**12**		0.50		ug/L		05/07/24 09:54	05/09/24 17:02	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.93**		0.50		mg/L			05/13/24 18:50	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.93**		0.50		mg/L			05/13/24 18:50	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.93**		0.50		mg/L			05/13/24 18:50	1

Client Sample ID: CH-CCR-TWX5-0424

Lab Sample ID: 550-217859-22

Date Collected: 05/01/24 16:31

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1900**	**D2**	200		mg/L			05/12/24 22:44	100
Fluoride	**2.9**		0.40		mg/L			05/12/24 22:25	1
Sulfate	**2900**	**D2**	200		mg/L			05/12/24 22:44	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.7**		0.050		mg/L		05/07/24 10:36	05/13/24 18:05	1
Calcium	**650**		2.0		mg/L		05/07/24 10:36	05/13/24 18:05	1
Iron	**0.23**		0.10		mg/L		05/07/24 10:36	05/13/24 18:05	1
Magnesium	**260**		2.0		mg/L		05/07/24 10:36	05/13/24 18:05	1
Manganese	**3.9**		0.010		mg/L		05/07/24 10:36	05/13/24 18:05	1
Potassium	**18**		0.50		mg/L		05/07/24 10:36	05/13/24 18:05	1
Sodium	**2400**		50		mg/L		05/07/24 10:36	05/14/24 19:48	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:36	05/13/24 18:05	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**230**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 23:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/07/24 09:54	05/09/24 17:00	1
Arsenic	**0.0031**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:00	1
Barium	**0.0067**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:00	1
Cadmium	**0.00024**		0.00010		mg/L		05/07/24 09:54	05/09/24 17:00	1
Chromium	**0.0075**		0.0010		mg/L		05/07/24 09:54	05/09/24 17:00	1
Cobalt	**0.012**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:00	1
Lead	**0.018**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:00	1
Molybdenum	**0.052**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:00	1

Client Sample ID: CH-CCR-TWX5-0424

Lab Sample ID: 550-217859-22

Date Collected: 05/01/24 16:31

Matrix: Water

Date Received: 05/03/24 10:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.010		mg/L		05/07/24 09:54	05/10/24 16:44	20
Thallium	**0.00013**		0.00010		mg/L		05/07/24 09:54	05/09/24 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.38**		0.050		mg/L			05/17/24 14:53	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/20/24 15:43	1
Alkalinity as CaCO3 (SM 2320B)	**62**		6.0		mg/L			05/13/24 11:23	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 11:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**62**		6.0		mg/L			05/13/24 11:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:23	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:23	1
Total Dissolved Solids (SM 2540C)	**7400**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			05/14/24 15:42	1
Temperature (SM 4500 H+ B)	**16.0**	**H5 T5**	0.1		Degrees C			05/14/24 15:42	1
Total Organic Carbon (SM 5310B)	ND	D1 D5	1.0		mg/L			05/07/24 18:22	2
Total Organic Carbon - Duplicates (SM 5310B)	ND	D1 D5	1.0		mg/L			05/07/24 18:22	2
Total Organic Carbon - Quad (SM 5310B)	ND	D1 D5	1.0		mg/L			05/07/24 18:22	2

Client Sample ID: CH-CCR-TWX6-0424

Lab Sample ID: 550-217859-23

Date Collected: 05/01/24 16:16

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:36	05/13/24 18:01	1
Manganese	**2.9**		0.010		mg/L		05/07/24 10:36	05/13/24 18:01	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.3**		0.50		ug/L		05/07/24 09:54	05/09/24 17:04	1
Cobalt	**15**		0.50		ug/L		05/07/24 09:54	05/09/24 17:04	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.1**		0.50		mg/L			05/13/24 19:01	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.1**		0.50		mg/L			05/13/24 19:01	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.1**		0.50		mg/L			05/13/24 19:01	1

Client Sample ID: CH-CCR-TWX6-0424

Date Collected: 05/01/24 16:16
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217859-24

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**	**D2**	100		mg/L			05/12/24 23:21	50
Fluoride	**2.4**		0.40		mg/L			05/12/24 23:02	1
Sulfate	**2800**	**D2**	100		mg/L			05/12/24 23:21	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.6**		0.050		mg/L		05/07/24 10:36	05/13/24 17:58	1
Calcium	**660**	**M3**	2.0		mg/L		05/07/24 10:36	05/13/24 17:58	1
Iron	**0.45**		0.10		mg/L		05/07/24 10:36	05/13/24 17:58	1
Magnesium	**230**	**M3**	2.0		mg/L		05/07/24 10:36	05/13/24 17:58	1
Manganese	**2.8**		0.010		mg/L		05/07/24 10:36	05/13/24 17:58	1
Potassium	**15**		0.50		mg/L		05/07/24 10:36	05/13/24 17:58	1
Sodium	**2100**	**M3**	50		mg/L		05/07/24 10:36	05/14/24 19:45	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:36	05/13/24 17:58	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**250**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 23:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/07/24 09:54	05/09/24 17:06	1
Arsenic	**0.0056**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:06	1
Barium	**0.012**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:06	1
Cadmium	**0.00045**		0.00010		mg/L		05/07/24 09:54	05/09/24 17:06	1
Chromium	**0.032**		0.0010		mg/L		05/07/24 09:54	05/09/24 17:06	1
Cobalt	**0.016**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:06	1
Lead	**0.018**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:06	1
Molybdenum	**0.045**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:06	1
Selenium	ND		0.010		mg/L		05/07/24 09:54	05/10/24 16:46	20
Thallium	ND		0.00010		mg/L		05/07/24 09:54	05/09/24 17:06	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 14:54	1
Nitrate Nitrite as N (EPA 353.2)	**0.19**		0.10		mg/L			05/20/24 15:49	1
Alkalinity as CaCO3 (SM 2320B)	**70**		6.0		mg/L			05/13/24 11:29	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 11:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**70**		6.0		mg/L			05/13/24 11:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:29	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:29	1
Total Dissolved Solids (SM 2540C)	**7700**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/16/24 14:44	1
Temperature (SM 4500 H+ B)	**12.4**	**H5 T5**	0.1		Degrees C			05/16/24 14:44	1
Total Organic Carbon (SM 5310B)	**1.0**	**D1**	1.0		mg/L			05/07/24 18:34	2
Total Organic Carbon - Duplicates (SM 5310B)	**1.0**	**D1**	1.0		mg/L			05/07/24 18:34	2
Total Organic Carbon - Quad (SM 5310B)	**1.0**	**D1**	1.0		mg/L			05/07/24 18:34	2

Client Sample ID: CH-CCR-TWX7-0424

Lab Sample ID: 550-217859-25

Date Collected: 05/01/24 15:56

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:36	05/13/24 18:12	1
Manganese	**3.8**		0.010		mg/L		05/07/24 10:36	05/13/24 18:12	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.0**		0.50		ug/L		05/07/24 09:54	05/09/24 17:08	1
Cobalt	**8.3**		0.50		ug/L		05/07/24 09:54	05/09/24 17:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.9**		0.50		mg/L			05/13/24 19:16	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.9**		0.50		mg/L			05/13/24 19:16	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.9**		0.50		mg/L			05/13/24 19:16	1

Client Sample ID: CH-CCR-TWX7-0424

Lab Sample ID: 550-217859-26

Date Collected: 05/01/24 15:56

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2100**	**D2**	100		mg/L			05/13/24 00:53	50
Fluoride	**2.1**		0.40		mg/L			05/12/24 23:39	1
Sulfate	**2800**	**D2**	100		mg/L			05/13/24 00:53	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.5**		0.050		mg/L		05/07/24 10:36	05/13/24 18:15	1
Calcium	**670**		2.0		mg/L		05/07/24 10:36	05/13/24 18:15	1
Iron	**2.9**		0.10		mg/L		05/07/24 10:36	05/13/24 18:15	1
Magnesium	**220**		2.0		mg/L		05/07/24 10:36	05/13/24 18:15	1
Manganese	**1.4**		0.010		mg/L		05/07/24 10:36	05/13/24 18:15	1
Potassium	**19**		0.50		mg/L		05/07/24 10:36	05/13/24 18:15	1
Sodium	**2100**		50		mg/L		05/07/24 10:36	05/14/24 19:52	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:36	05/13/24 18:15	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**200**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 19:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/07/24 09:54	05/09/24 17:10	1
Arsenic	**0.0071**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:10	1
Barium	**0.0031**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:10	1
Cadmium	**0.00061**		0.00010		mg/L		05/07/24 09:54	05/09/24 17:10	1
Chromium	**0.35**		0.0010		mg/L		05/07/24 09:54	05/09/24 17:10	1
Cobalt	**0.017**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:10	1
Lead	**0.055**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:10	1
Molybdenum	**0.050**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:10	1

Client Sample ID: CH-CCR-TWX7-0424

Lab Sample ID: 550-217859-26

Date Collected: 05/01/24 15:56
Date Received: 05/03/24 10:10

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.010		mg/L		05/07/24 09:54	05/10/24 16:48	20
Thallium	ND		0.00010		mg/L		05/07/24 09:54	05/09/24 17:10	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 14:56	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/20/24 15:51	1
Alkalinity as CaCO3 (SM 2320B)	**83**		6.0		mg/L			05/13/24 11:34	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 11:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**83**		6.0		mg/L			05/13/24 11:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:34	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:34	1
Total Dissolved Solids (SM 2540C)	**7700**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			05/14/24 15:44	1
Temperature (SM 4500 H+ B)	**15.9**	**H5 T5**	0.1		Degrees C			05/14/24 15:44	1
Total Organic Carbon (SM 5310B)	**1.2**	**D1**	1.0		mg/L			05/07/24 18:48	2
Total Organic Carbon - Duplicates (SM 5310B)	**1.2**	**D1**	1.0		mg/L			05/07/24 18:48	2
Total Organic Carbon - Quad (SM 5310B)	**1.2**	**D1**	1.0		mg/L			05/07/24 18:48	2

Client Sample ID: CH-CCR-TWX8-0424

Lab Sample ID: 550-217859-27

Date Collected: 05/01/24 11:10
Date Received: 05/03/24 10:10

Matrix: Water

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.15**		0.10		mg/L		05/07/24 10:36	05/13/24 18:25	1
Manganese	**6.0**		0.010		mg/L		05/07/24 10:36	05/13/24 18:25	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.6**		0.50		ug/L		05/07/24 09:54	05/09/24 17:12	1
Cobalt	**20**		0.50		ug/L		05/07/24 09:54	05/09/24 17:12	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.5**		0.50		mg/L			05/13/24 19:56	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.5**		0.50		mg/L			05/13/24 19:56	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.5**		0.50		mg/L			05/13/24 19:56	1

Client Sample ID: CH-CCR-TWX8-0424

Date Collected: 05/01/24 11:10
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217859-28

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2200**	**D2**	100		mg/L			05/13/24 01:29	50
Fluoride	**2.1**		0.40		mg/L			05/13/24 01:11	1
Sulfate	**2800**	**D2**	100		mg/L			05/13/24 01:29	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.3**		0.050		mg/L		05/07/24 10:36	05/13/24 18:28	1
Calcium	**650**		2.0		mg/L		05/07/24 10:36	05/13/24 18:28	1
Iron	**1.4**		0.10		mg/L		05/07/24 10:36	05/13/24 18:28	1
Magnesium	**220**		2.0		mg/L		05/07/24 10:36	05/13/24 18:28	1
Manganese	**6.5**		0.010		mg/L		05/07/24 10:36	05/13/24 18:28	1
Potassium	**17**		0.50		mg/L		05/07/24 10:36	05/13/24 18:28	1
Sodium	**1800**		50		mg/L		05/07/24 10:36	05/14/24 19:55	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:36	05/13/24 18:28	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**210**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 19:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/07/24 09:54	05/09/24 17:20	1
Arsenic	**0.0063**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:20	1
Barium	**0.015**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:20	1
Cadmium	**0.0016**		0.00010		mg/L		05/07/24 09:54	05/09/24 17:20	1
Chromium	**0.50**		0.0010		mg/L		05/07/24 09:54	05/09/24 17:20	1
Cobalt	**0.018**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:20	1
Lead	**0.029**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:20	1
Molybdenum	**0.039**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:20	1
Selenium	ND		0.010		mg/L		05/07/24 09:54	05/10/24 16:50	20
Thallium	ND		0.00010		mg/L		05/07/24 09:54	05/09/24 17:20	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.053**		0.050		mg/L			05/17/24 14:57	1
Nitrate Nitrite as N (EPA 353.2)	**0.12**		0.10		mg/L			05/20/24 15:53	1
Alkalinity as CaCO3 (SM 2320B)	**92**		6.0		mg/L			05/13/24 11:55	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 11:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**92**		6.0		mg/L			05/13/24 11:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:55	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 11:55	1
Total Dissolved Solids (SM 2540C)	**7300**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/14/24 15:46	1
Temperature (SM 4500 H+ B)	**16.0**	**H5 T5**	0.1		Degrees C			05/14/24 15:46	1
Total Organic Carbon (SM 5310B)	**1.6**		1.0		mg/L			05/09/24 19:41	2
Total Organic Carbon - Duplicates (SM 5310B)	**1.6**		1.0		mg/L			05/09/24 19:41	2
Total Organic Carbon - Quad (SM 5310B)	**1.6**		1.0		mg/L			05/09/24 19:41	2

Client Sample ID: CH-CCR-TWX9-0424

Date Collected: 05/01/24 17:07
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217859-29

Matrix: Water

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:36	05/13/24 18:32	1
Manganese	**4.2**		0.010		mg/L		05/07/24 10:36	05/13/24 18:32	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		05/07/24 09:54	05/10/24 16:52	20
Cobalt	**11**		10		ug/L		05/07/24 09:54	05/10/24 16:52	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**3.8**		0.50		mg/L			05/13/24 20:11	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**3.8**		0.50		mg/L			05/13/24 20:11	1
Dissolved Organic Carbon - Quad (SM 5310B)	**3.8**		0.50		mg/L			05/13/24 20:11	1

Client Sample ID: CH-CCR-TWX9-0424

Date Collected: 05/01/24 17:07
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217859-30

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2200**	**D2**	200		mg/L			05/13/24 02:06	100
Fluoride	**1.5**		0.40		mg/L			05/13/24 01:48	1
Sulfate	**2800**	**D2**	200		mg/L			05/13/24 02:06	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.1**		0.050		mg/L		05/07/24 10:36	05/13/24 18:35	1
Calcium	**700**		2.0		mg/L		05/07/24 10:36	05/13/24 18:35	1
Iron	**1.3**		0.10		mg/L		05/07/24 10:36	05/13/24 18:35	1
Magnesium	**220**		2.0		mg/L		05/07/24 10:36	05/13/24 18:35	1
Manganese	**4.1**		0.010		mg/L		05/07/24 10:36	05/13/24 18:35	1
Potassium	**20**		0.50		mg/L		05/07/24 10:36	05/13/24 18:35	1
Sodium	**2100**		50		mg/L		05/07/24 10:36	05/14/24 19:59	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:36	05/13/24 18:35	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**250**	**T5**	20		ug/L		05/06/24 15:36	05/13/24 19:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/07/24 09:54	05/09/24 17:24	1
Arsenic	ND		0.010		mg/L		05/07/24 09:54	05/10/24 16:54	20
Barium	**0.011**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:24	1
Cadmium	**0.00038**		0.00010		mg/L		05/07/24 09:54	05/09/24 17:24	1
Chromium	**0.10**		0.020		mg/L		05/07/24 09:54	05/10/24 16:54	20
Cobalt	**0.014**		0.010		mg/L		05/07/24 09:54	05/10/24 16:54	20
Lead	**0.0012**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:24	1
Molybdenum	**0.042**		0.00050		mg/L		05/07/24 09:54	05/09/24 17:24	1

Client Sample ID: CH-CCR-TWX9-0424

Lab Sample ID: 550-217859-30

Date Collected: 05/01/24 17:07

Matrix: Water

Date Received: 05/03/24 10:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.010		mg/L		05/07/24 09:54	05/10/24 16:54	20
Thallium	ND		0.00010		mg/L		05/07/24 09:54	05/09/24 17:24	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.12**		0.050		mg/L			05/17/24 14:59	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/20/24 15:55	1
Alkalinity as CaCO3 (SM 2320B)	**130**		6.0		mg/L			05/13/24 12:07	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 12:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**130**		6.0		mg/L			05/13/24 12:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 12:07	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 12:07	1
Total Dissolved Solids (SM 2540C)	**8000**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.8**	**H5**	1.7		SU			05/14/24 15:48	1
Temperature (SM 4500 H+ B)	**16.2**	**H5 T5**	0.1		Degrees C			05/14/24 15:48	1
Total Organic Carbon (SM 5310B)	**3.7**		0.50		mg/L			05/09/24 19:56	1
Total Organic Carbon - Duplicates (SM 5310B)	**3.7**		0.50		mg/L			05/09/24 19:56	1
Total Organic Carbon - Quad (SM 5310B)	**3.7**		0.50		mg/L			05/09/24 19:56	1

Client Sample ID: CH-CCR-TWX10-0424

Lab Sample ID: 550-217859-31

Date Collected: 05/01/24 10:50

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/07/24 10:36	05/13/24 18:39	1
Manganese	**0.14**		0.010		mg/L		05/07/24 10:36	05/13/24 18:39	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		05/07/24 09:54	05/10/24 17:18	20
Cobalt	**16**		10		ug/L		05/07/24 09:54	05/10/24 17:18	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.4**		0.50		mg/L			05/13/24 20:26	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.4**		0.50		mg/L			05/13/24 20:26	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.4**		0.50		mg/L			05/13/24 20:26	1

Client Sample ID: CH-CCR-TWX10-0424

Date Collected: 05/01/24 10:50
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217859-32

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3700**	**D2**	100		mg/L			05/13/24 02:43	50
Fluoride	ND		0.40		mg/L			05/13/24 02:25	1
Sulfate	**2700**	**D2**	100		mg/L			05/13/24 02:43	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.39**		0.050		mg/L		05/07/24 10:36	05/13/24 18:42	1
Calcium	**720**		2.0		mg/L		05/07/24 10:36	05/13/24 18:42	1
Iron	**9.2**		0.10		mg/L		05/07/24 10:36	05/13/24 18:42	1
Magnesium	**170**		2.0		mg/L		05/07/24 10:36	05/13/24 18:42	1
Manganese	**1.3**		0.010		mg/L		05/07/24 10:36	05/13/24 18:42	1
Potassium	**9.9**		0.50		mg/L		05/07/24 10:36	05/13/24 18:42	1
Sodium	**2200**		50		mg/L		05/07/24 10:36	05/14/24 20:02	100
Beryllium	ND		0.0010		mg/L		05/07/24 10:36	05/13/24 18:42	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**480**	**T5**	200		ug/L		05/06/24 15:36	05/14/24 17:48	10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/07/24 09:54	05/10/24 17:20	20
Arsenic	ND		0.010		mg/L		05/07/24 09:54	05/10/24 17:20	20
Barium	**0.11**		0.010		mg/L		05/07/24 09:54	05/10/24 17:20	20
Cadmium	ND		0.0020		mg/L		05/07/24 09:54	05/10/24 17:20	20
Chromium	**0.18**		0.020		mg/L		05/07/24 09:54	05/10/24 17:20	20
Cobalt	**0.025**		0.010		mg/L		05/07/24 09:54	05/10/24 17:20	20
Lead	**0.055**		0.010		mg/L		05/07/24 09:54	05/10/24 17:20	20
Molybdenum	**0.021**		0.010		mg/L		05/07/24 09:54	05/10/24 17:20	20
Selenium	ND		0.010		mg/L		05/07/24 09:54	05/10/24 17:20	20
Thallium	ND		0.0020		mg/L		05/07/24 09:54	05/10/24 17:20	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 15:00	1
Nitrate Nitrite as N (EPA 353.2)	**0.16**		0.10		mg/L			05/20/24 15:57	1
Alkalinity as CaCO3 (SM 2320B)	**86**		6.0		mg/L			05/13/24 12:14	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/13/24 12:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**86**		6.0		mg/L			05/13/24 12:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 12:14	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/13/24 12:14	1
Total Dissolved Solids (SM 2540C)	**10000**		100		mg/L			05/07/24 08:46	1
pH (SM 4500 H+ B)	**7.8**	**H5**	1.7		SU			05/14/24 15:50	1
Temperature (SM 4500 H+ B)	**16.0**	**H5 T5**	0.1		Degrees C			05/14/24 15:50	1
Total Organic Carbon (SM 5310B)	**2.1**		0.50		mg/L			05/09/24 20:08	1
Total Organic Carbon - Duplicates (SM 5310B)	**2.1**		0.50		mg/L			05/09/24 20:08	1
Total Organic Carbon - Quad (SM 5310B)	**2.1**		0.50		mg/L			05/09/24 20:08	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-320753/2
Matrix: Water
Analysis Batch: 320753

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/12/24 12:09	1
Fluoride	ND		0.40		mg/L			05/12/24 12:09	1
Sulfate	ND		2.0		mg/L			05/12/24 12:09	1

Lab Sample ID: LCS 550-320753/5
Matrix: Water
Analysis Batch: 320753

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.2		mg/L		96	90 - 110		
Fluoride			4.00	3.93		mg/L		98	90 - 110		
Sulfate			20.0	19.1		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-320753/6
Matrix: Water
Analysis Batch: 320753

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.1		mg/L		95	90 - 110	1	20
Fluoride			4.00	3.90		mg/L		97	90 - 110	1	20
Sulfate			20.0	19.0		mg/L		95	90 - 110	0	20

Lab Sample ID: 550-217859-2 MS
Matrix: Water
Analysis Batch: 320753

Client Sample ID: CH-CCR-MW71A-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2000	D2	2000	3910	D2	mg/L		97	80 - 120		
Fluoride	ND	D1 D5	400	386	D2	mg/L		97	80 - 120		
Sulfate	2800	D2	2000	4600	D2	mg/L		91	80 - 120		

Lab Sample ID: 550-217859-2 MSD
Matrix: Water
Analysis Batch: 320753

Client Sample ID: CH-CCR-MW71A-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2000	D2	2000	3880	D2	mg/L		96	80 - 120	1	20
Fluoride	ND	D1 D5	400	381	D2	mg/L		95	80 - 120	2	20
Sulfate	2800	D2	2000	4580	D2	mg/L		90	80 - 120	1	20

Lab Sample ID: MB 550-320803/2
Matrix: Water
Analysis Batch: 320803

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/13/24 12:26	1
Fluoride	ND		0.40		mg/L			05/13/24 12:26	1
Sulfate	ND		2.0		mg/L			05/13/24 12:26	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-320803/5
Matrix: Water
Analysis Batch: 320803

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.5		mg/L		98	90 - 110		
Fluoride			4.00	3.96		mg/L		99	90 - 110		
Sulfate			20.0	19.4		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320803/6
Matrix: Water
Analysis Batch: 320803

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.5		mg/L		98	90 - 110	0	20
Fluoride			4.00	3.96		mg/L		99	90 - 110	0	20
Sulfate			20.0	19.4		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-217864-B-2 MS ^20
Matrix: Water
Analysis Batch: 320803

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1700	M3 R4 D2	400	2380	D2 M3	mg/L		174	80 - 120		
Fluoride	ND	D1 D5	80.0	79.2	D2	mg/L		99	80 - 120		
Sulfate	430	M1 M2 R4 D2	400	927	D2 M1	mg/L		123	80 - 120		

Lab Sample ID: 550-217864-B-2 MSD ^20
Matrix: Water
Analysis Batch: 320803

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1700	M3 R4 D2	400	1720	D2 M3 R4	mg/L		10	80 - 120	32	20
Fluoride	ND	D1 D5	80.0	80.2	D2	mg/L		100	80 - 120	1	20
Sulfate	430	M1 M2 R4 D2	400	725	D2 M2 R4	mg/L		73	80 - 120	24	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-320443/1-A
Matrix: Water
Analysis Batch: 320868

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320443

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/07/24 10:30	05/13/24 19:19	1
Calcium	ND		2.0		mg/L		05/07/24 10:30	05/13/24 19:19	1
Magnesium	ND		2.0		mg/L		05/07/24 10:30	05/13/24 19:19	1
Manganese	ND		0.010		mg/L		05/07/24 10:30	05/13/24 19:19	1
Potassium	ND		0.50		mg/L		05/07/24 10:30	05/13/24 19:19	1
Beryllium	ND		0.0010		mg/L		05/07/24 10:30	05/13/24 19:19	1
Iron	ND		0.10		mg/L		05/07/24 10:30	05/13/24 19:19	1

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

Lab Sample ID: MB 550-320443/1-A
Matrix: Water
Analysis Batch: 320923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320443

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		0.50		mg/L		05/07/24 10:30	05/14/24 20:12	1

Lab Sample ID: LCS 550-320443/2-A
Matrix: Water
Analysis Batch: 320868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320443

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.01		mg/L		101	85 - 115		
Calcium			21.0	20.7		mg/L		98	85 - 115		
Magnesium			21.0	20.9		mg/L		99	85 - 115		
Manganese			1.00	0.975		mg/L		98	85 - 115		
Potassium			20.0	20.0		mg/L		100	85 - 115		
Beryllium			1.00	1.05		mg/L		105	85 - 115		
Iron			1.00	0.981		mg/L		98	85 - 115		

Lab Sample ID: LCS 550-320443/2-A
Matrix: Water
Analysis Batch: 320923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320443

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium			20.0	18.7		mg/L		93	85 - 115		

Lab Sample ID: LCSD 550-320443/3-A
Matrix: Water
Analysis Batch: 320868

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320443

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron			1.00	1.02		mg/L		102	85 - 115	0	20
Calcium			21.0	20.7		mg/L		99	85 - 115	0	20
Magnesium			21.0	20.9		mg/L		100	85 - 115	0	20
Manganese			1.00	0.975		mg/L		97	85 - 115	0	20
Potassium			20.0	20.1		mg/L		101	85 - 115	1	20
Beryllium			1.00	1.05		mg/L		105	85 - 115	0	20
Iron			1.00	0.977		mg/L		98	85 - 115	0	20

Lab Sample ID: LCSD 550-320443/3-A
Matrix: Water
Analysis Batch: 320923

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320443

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium			20.0	19.7		mg/L		99	85 - 115	5	20

Lab Sample ID: 550-217859-4 MS
Matrix: Water
Analysis Batch: 320868

Client Sample ID: CH-CCR-MW72M-0424
Prep Type: Total/NA
Prep Batch: 320443

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	0.40		1.00	1.45		mg/L		105	70 - 130		
Magnesium	1100	E2 M3	21.0	1030	E2 M3	mg/L		-263	70 - 130		
Manganese	3.2		1.00	3.92		mg/L		70	70 - 130		

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

Lab Sample ID: 550-217859-4 MS
Matrix: Water
Analysis Batch: 320868

Client Sample ID: CH-CCR-MW72M-0424
Prep Type: Total/NA
Prep Batch: 320443

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	220		20.0	240	M3	mg/L		74	70 - 130
Beryllium	ND		1.00	1.13		mg/L		113	70 - 130
Iron	ND		1.00	1.12		mg/L		103	70 - 130

Lab Sample ID: 550-217859-4 MS
Matrix: Water
Analysis Batch: 320923

Client Sample ID: CH-CCR-MW72M-0424
Prep Type: Total/NA
Prep Batch: 320443

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	9400	M3 R4	21.0	8170	M3	mg/L		-5664	70 - 130
Sodium	14000	M3 R4	20.0	12000	M3	mg/L		-9320	70 - 130

Lab Sample ID: 550-217859-4 MSD
Matrix: Water
Analysis Batch: 320868

Client Sample ID: CH-CCR-MW72M-0424
Prep Type: Total/NA
Prep Batch: 320443

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.40		1.00	1.49		mg/L		108	70 - 130	2	20
Magnesium	1100	E2 M3	21.0	1060	E2 M3	mg/L		-120	70 - 130	3	20
Manganese	3.2		1.00	4.02		mg/L		80	70 - 130	3	20
Potassium	220		20.0	248	M3	mg/L		118	70 - 130	4	20
Beryllium	ND		1.00	1.17		mg/L		117	70 - 130	4	20
Iron	ND		1.00	1.16		mg/L		108	70 - 130	4	20

Lab Sample ID: 550-217859-4 MSD
Matrix: Water
Analysis Batch: 320923

Client Sample ID: CH-CCR-MW72M-0424
Prep Type: Total/NA
Prep Batch: 320443

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	9400	M3 R4	21.0	11800	M3 R4	mg/L		11545	70 - 130	36	20
Sodium	14000	M3 R4	20.0	17500	M3 R4	mg/L		18006	70 - 130	37	20

Lab Sample ID: MB 550-320444/1-A
Matrix: Water
Analysis Batch: 320867

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320444

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/07/24 10:36	05/13/24 17:41	1
Calcium	ND		2.0		mg/L		05/07/24 10:36	05/13/24 17:41	1
Magnesium	ND		2.0		mg/L		05/07/24 10:36	05/13/24 17:41	1
Manganese	ND		0.010		mg/L		05/07/24 10:36	05/13/24 17:41	1
Potassium	ND		0.50		mg/L		05/07/24 10:36	05/13/24 17:41	1
Beryllium	ND		0.0010		mg/L		05/07/24 10:36	05/13/24 17:41	1
Iron	ND		0.10		mg/L		05/07/24 10:36	05/13/24 17:41	1

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

Lab Sample ID: MB 550-320444/1-A
Matrix: Water
Analysis Batch: 320922

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320444

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		0.50		mg/L		05/07/24 10:36	05/14/24 19:28	1

Lab Sample ID: LCS 550-320444/2-A
Matrix: Water
Analysis Batch: 320867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320444

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.03		mg/L		103	85 - 115		
Calcium			21.0	20.9		mg/L		99	85 - 115		
Magnesium			21.0	21.1		mg/L		101	85 - 115		
Manganese			1.00	0.994		mg/L		99	85 - 115		
Potassium			20.0	20.0		mg/L		100	85 - 115		
Beryllium			1.00	1.06		mg/L		106	85 - 115		
Iron			1.00	0.987		mg/L		99	85 - 115		

Lab Sample ID: LCS 550-320444/2-A
Matrix: Water
Analysis Batch: 320922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320444

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium			20.0	19.1		mg/L		95	85 - 115		

Lab Sample ID: LCSD 550-320444/3-A
Matrix: Water
Analysis Batch: 320867

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320444

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron			1.00	1.01		mg/L		101	85 - 115	2	20
Calcium			21.0	20.3		mg/L		97	85 - 115	3	20
Magnesium			21.0	20.5		mg/L		98	85 - 115	3	20
Manganese			1.00	0.964		mg/L		96	85 - 115	3	20
Potassium			20.0	19.6		mg/L		98	85 - 115	2	20
Beryllium			1.00	1.03		mg/L		103	85 - 115	3	20
Iron			1.00	0.957		mg/L		96	85 - 115	3	20

Lab Sample ID: LCSD 550-320444/3-A
Matrix: Water
Analysis Batch: 320922

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320444

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium			20.0	19.8		mg/L		99	85 - 115	4	20

Lab Sample ID: 550-217859-24 MS
Matrix: Water
Analysis Batch: 320867

Client Sample ID: CH-CCR-TWX6-0424
Prep Type: Total/NA
Prep Batch: 320444

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	3.6		1.00	4.64		mg/L		99	70 - 130		
Calcium	660	M3	21.0	660	M3	mg/L		-12	70 - 130		
Magnesium	230	M3	21.0	245	M3	mg/L		71	70 - 130		

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

Lab Sample ID: 550-217859-24 MS — **Client Sample ID: CH-CCR-TWX6-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320867 — **Prep Batch: 320444**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	2.8		1.00	3.64		mg/L		87	70 - 130
Potassium	15		20.0	38.1		mg/L		118	70 - 130
Beryllium	ND		1.00	1.13		mg/L		113	70 - 130
Iron	0.45		1.00	1.53		mg/L		108	70 - 130

Lab Sample ID: 550-217859-24 MS — **Client Sample ID: CH-CCR-TWX6-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320922 — **Prep Batch: 320444**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	2100	M3	20.0	1990	M3	mg/L		-783	70 - 130

Lab Sample ID: 550-217859-24 MSD — **Client Sample ID: CH-CCR-TWX6-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320867 — **Prep Batch: 320444**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	3.6		1.00	4.60		mg/L		95	70 - 130	1	20
Calcium	660	M3	21.0	659	M3	mg/L		-15	70 - 130	0	20
Magnesium	230	M3	21.0	245	M3	mg/L		68	70 - 130	0	20
Manganese	2.8		1.00	3.60		mg/L		83	70 - 130	1	20
Potassium	15		20.0	38.6		mg/L		120	70 - 130	1	20
Beryllium	ND		1.00	1.13		mg/L		113	70 - 130	0	20
Iron	0.45		1.00	1.56		mg/L		111	70 - 130	2	20

Lab Sample ID: 550-217859-24 MSD — **Client Sample ID: CH-CCR-TWX6-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320922 — **Prep Batch: 320444**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	2100	M3	20.0	1960	M3	mg/L		-946	70 - 130	2	20

Lab Sample ID: 280-191004-D-10-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 653314 — **Prep Batch: 652239**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	39		1000	1050		ug/L		101	70 - 130

Lab Sample ID: 280-191004-D-10-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 653314 — **Prep Batch: 652239**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	39		1000	1050		ug/L		102	70 - 130	0	20

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

Lab Sample ID: MB 280-652235/1-A
Matrix: Water
Analysis Batch: 653128

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 652235

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20		ug/L		05/06/24 15:36	05/10/24 20:12	1

Lab Sample ID: LCS 280-652235/2-A
Matrix: Water
Analysis Batch: 653128

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 652235

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			1000	978		ug/L		98	90 - 112		

Lab Sample ID: LCSD 280-652235/3-A
Matrix: Water
Analysis Batch: 653128

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 652235

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium			1000	1010		ug/L		101	90 - 112	3	20

Lab Sample ID: 550-217859-2 MS
Matrix: Water
Analysis Batch: 653318

Client Sample ID: CH-CCR-MW71A-0424
Prep Type: Total Recoverable
Prep Batch: 652235

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium	190	T5	1000	1430		ug/L		124	70 - 130		

Lab Sample ID: 550-217859-2 MSD
Matrix: Water
Analysis Batch: 653318

Client Sample ID: CH-CCR-MW71A-0424
Prep Type: Total Recoverable
Prep Batch: 652235

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	190	T5	1000	1430		ug/L		124	70 - 130	0	20

Lab Sample ID: MB 280-652239/1-A
Matrix: Water
Analysis Batch: 653314

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 652239

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20		ug/L		05/06/24 15:36	05/13/24 19:05	1

Lab Sample ID: LCS 280-652239/2-A
Matrix: Water
Analysis Batch: 653314

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 652239

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			1000	989		ug/L		99	90 - 112		

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-320441/1-A
Matrix: Water
Analysis Batch: 320975

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320441

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/07/24 09:47	05/15/24 12:33	1
Arsenic	ND		0.00050		mg/L		05/07/24 09:47	05/15/24 12:33	1
Barium	ND		0.00050		mg/L		05/07/24 09:47	05/15/24 12:33	1
Cadmium	ND		0.00010		mg/L		05/07/24 09:47	05/15/24 12:33	1
Chromium	ND		0.0010		mg/L		05/07/24 09:47	05/15/24 12:33	1
Cobalt	ND		0.00050		mg/L		05/07/24 09:47	05/15/24 12:33	1
Lead	ND		0.00050		mg/L		05/07/24 09:47	05/15/24 12:33	1
Molybdenum	ND		0.00050		mg/L		05/07/24 09:47	05/15/24 12:33	1
Selenium	ND		0.00050		mg/L		05/07/24 09:47	05/15/24 12:33	1
Thallium	ND		0.00010		mg/L		05/07/24 09:47	05/15/24 12:33	1

Lab Sample ID: LCS 550-320441/2-A
Matrix: Water
Analysis Batch: 320975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320441

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.105		mg/L		105	85 - 115		
Arsenic			0.100	0.106		mg/L		106	85 - 115		
Barium			0.100	0.0979		mg/L		98	85 - 115		
Cadmium			0.100	0.103		mg/L		103	85 - 115		
Chromium			0.100	0.107		mg/L		107	85 - 115		
Cobalt			0.100	0.106		mg/L		106	85 - 115		
Lead			0.100	0.103		mg/L		103	85 - 115		
Molybdenum			0.100	0.106		mg/L		106	85 - 115		
Selenium			0.100	0.109		mg/L		109	85 - 115		
Thallium			0.100	0.106		mg/L		106	85 - 115		

Lab Sample ID: LCSD 550-320441/3-A
Matrix: Water
Analysis Batch: 320975

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320441

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.105		mg/L		105	85 - 115	0	20
Arsenic			0.100	0.106		mg/L		106	85 - 115	1	20
Barium			0.100	0.0993		mg/L		99	85 - 115	1	20
Cadmium			0.100	0.105		mg/L		105	85 - 115	2	20
Chromium			0.100	0.107		mg/L		107	85 - 115	0	20
Cobalt			0.100	0.108		mg/L		108	85 - 115	2	20
Lead			0.100	0.104		mg/L		104	85 - 115	1	20
Molybdenum			0.100	0.107		mg/L		107	85 - 115	1	20
Selenium			0.100	0.108		mg/L		108	85 - 115	1	20
Thallium			0.100	0.107		mg/L		107	85 - 115	1	20

Lab Sample ID: 550-217859-2 MS
Matrix: Water
Analysis Batch: 320975

Client Sample ID: CH-CCR-MW71A-0424
Prep Type: Total/NA
Prep Batch: 320441

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND		0.100	0.129		mg/L		129	70 - 130		

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

Lab Sample ID: 550-217859-2 MS
Matrix: Water
Analysis Batch: 320975

Client Sample ID: CH-CCR-MW71A-0424
Prep Type: Total/NA
Prep Batch: 320441

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	0.010	M1	0.100	0.142	M1	mg/L		132	70 - 130		
Barium	0.013		0.100	0.137		mg/L		124	70 - 130		
Cadmium	ND		0.100	0.125		mg/L		125	70 - 130		
Chromium	ND		0.100	0.129		mg/L		129	70 - 130		
Cobalt	0.014		0.100	0.142		mg/L		128	70 - 130		
Lead	ND		0.100	0.122		mg/L		122	70 - 130		
Molybdenum	0.033	M1	0.100	0.168	M1	mg/L		135	70 - 130		
Selenium	ND	M1	0.100	0.147	M1	mg/L		142	70 - 130		
Thallium	ND		0.100	0.125		mg/L		125	70 - 130		

Lab Sample ID: 550-217859-2 MSD
Matrix: Water
Analysis Batch: 320975

Client Sample ID: CH-CCR-MW71A-0424
Prep Type: Total/NA
Prep Batch: 320441

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.120		mg/L		120	70 - 130	8	20
Arsenic	0.010	M1	0.100	0.131		mg/L		121	70 - 130	8	20
Barium	0.013		0.100	0.126		mg/L		113	70 - 130	9	20
Cadmium	ND		0.100	0.117		mg/L		117	70 - 130	7	20
Chromium	ND		0.100	0.120		mg/L		120	70 - 130	7	20
Cobalt	0.014		0.100	0.132		mg/L		118	70 - 130	8	20
Lead	ND		0.100	0.113		mg/L		113	70 - 130	8	20
Molybdenum	0.033	M1	0.100	0.157		mg/L		124	70 - 130	7	20
Selenium	ND	M1	0.100	0.127		mg/L		122	70 - 130	15	20
Thallium	ND		0.100	0.117		mg/L		117	70 - 130	7	20

Lab Sample ID: MB 550-320442/1-A
Matrix: Water
Analysis Batch: 320659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320442

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/07/24 09:54	05/09/24 16:46	1
Arsenic	ND		0.00050		mg/L		05/07/24 09:54	05/09/24 16:46	1
Barium	ND		0.00050		mg/L		05/07/24 09:54	05/09/24 16:46	1
Cadmium	ND		0.00010		mg/L		05/07/24 09:54	05/09/24 16:46	1
Chromium	ND		0.0010		mg/L		05/07/24 09:54	05/09/24 16:46	1
Cobalt	ND		0.00050		mg/L		05/07/24 09:54	05/09/24 16:46	1
Lead	ND		0.00050		mg/L		05/07/24 09:54	05/09/24 16:46	1
Molybdenum	ND		0.00050		mg/L		05/07/24 09:54	05/09/24 16:46	1
Selenium	0.000896	B1	0.00050		mg/L		05/07/24 09:54	05/09/24 16:46	1
Thallium	ND		0.00010		mg/L		05/07/24 09:54	05/09/24 16:46	1

Lab Sample ID: MB 550-320442/1-A
Matrix: Water
Analysis Batch: 320785

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320442

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/07/24 09:54	05/10/24 16:32	1
Arsenic	ND		0.00050		mg/L		05/07/24 09:54	05/10/24 16:32	1

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

Lab Sample ID: MB 550-320442/1-A
Matrix: Water
Analysis Batch: 320785

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320442

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.00050		mg/L		05/07/24 09:54	05/10/24 16:32	1
Cadmium	ND		0.00010		mg/L		05/07/24 09:54	05/10/24 16:32	1
Chromium	ND		0.0010		mg/L		05/07/24 09:54	05/10/24 16:32	1
Cobalt	ND		0.00050		mg/L		05/07/24 09:54	05/10/24 16:32	1
Lead	ND		0.00050		mg/L		05/07/24 09:54	05/10/24 16:32	1
Molybdenum	ND		0.00050		mg/L		05/07/24 09:54	05/10/24 16:32	1
Selenium	ND		0.00050		mg/L		05/07/24 09:54	05/10/24 16:32	1
Thallium	ND		0.00010		mg/L		05/07/24 09:54	05/10/24 16:32	1

Lab Sample ID: LCS 550-320442/2-A
Matrix: Water
Analysis Batch: 320659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320442

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.105		mg/L		105	85 - 115		
Arsenic			0.100	0.108		mg/L		108	85 - 115		
Barium			0.100	0.101		mg/L		101	85 - 115		
Cadmium			0.100	0.101		mg/L		101	85 - 115		
Chromium			0.100	0.107		mg/L		107	85 - 115		
Cobalt			0.100	0.107		mg/L		107	85 - 115		
Lead			0.100	0.103		mg/L		103	85 - 115		
Molybdenum			0.100	0.102		mg/L		102	85 - 115		
Selenium			0.100	0.113		mg/L		113	85 - 115		
Thallium			0.100	0.103		mg/L		103	85 - 115		

Lab Sample ID: LCS 550-320442/2-A
Matrix: Water
Analysis Batch: 320785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320442

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.112		mg/L		112	85 - 115		
Arsenic			0.100	0.107		mg/L		107	85 - 115		
Barium			0.100	0.101		mg/L		101	85 - 115		
Cadmium			0.100	0.111		mg/L		111	85 - 115		
Chromium			0.100	0.111		mg/L		111	85 - 115		
Cobalt			0.100	0.110		mg/L		110	85 - 115		
Lead			0.100	0.110		mg/L		110	85 - 115		
Molybdenum			0.100	0.112		mg/L		112	85 - 115		
Selenium			0.100	0.104		mg/L		104	85 - 115		
Thallium			0.100	0.113		mg/L		113	85 - 115		

Lab Sample ID: LCSD 550-320442/3-A
Matrix: Water
Analysis Batch: 320659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320442

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.105		mg/L		105	85 - 115	0	20
Arsenic			0.100	0.105		mg/L		105	85 - 115	3	20
Barium			0.100	0.100		mg/L		100	85 - 115	1	20

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

Lab Sample ID: LCSD 550-320442/3-A
Matrix: Water
Analysis Batch: 320659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320442

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium			0.100	0.100		mg/L		100	85 - 115	0	20
Chromium			0.100	0.103		mg/L		103	85 - 115	4	20
Cobalt			0.100	0.104		mg/L		104	85 - 115	2	20
Lead			0.100	0.101		mg/L		101	85 - 115	2	20
Molybdenum			0.100	0.102		mg/L		102	85 - 115	0	20
Selenium			0.100	0.110		mg/L		110	85 - 115	3	20
Thallium			0.100	0.102		mg/L		102	85 - 115	1	20

Lab Sample ID: LCSD 550-320442/3-A
Matrix: Water
Analysis Batch: 320785

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320442

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.111		mg/L		111	85 - 115	1	20
Arsenic			0.100	0.105		mg/L		105	85 - 115	2	20
Barium			0.100	0.0986		mg/L		99	85 - 115	2	20
Cadmium			0.100	0.108		mg/L		108	85 - 115	2	20
Chromium			0.100	0.109		mg/L		109	85 - 115	2	20
Cobalt			0.100	0.109		mg/L		109	85 - 115	1	20
Lead			0.100	0.110		mg/L		110	85 - 115	0	20
Molybdenum			0.100	0.109		mg/L		109	85 - 115	3	20
Selenium			0.100	0.103		mg/L		103	85 - 115	1	20
Thallium			0.100	0.112		mg/L		112	85 - 115	1	20

Lab Sample ID: 550-217859-22 MS
Matrix: Water
Analysis Batch: 320659

Client Sample ID: CH-CCR-TWX5-0424
Prep Type: Total/NA
Prep Batch: 320442

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND		0.100	0.104		mg/L		103	70 - 130		
Arsenic	0.0031		0.100	0.114		mg/L		111	70 - 130		
Barium	0.0067		0.100	0.101		mg/L		95	70 - 130		
Cadmium	0.00024		0.100	0.0886		mg/L		88	70 - 130		
Chromium	0.0075		0.100	0.108		mg/L		101	70 - 130		
Cobalt	0.012		0.100	0.109		mg/L		97	70 - 130		
Lead	0.018		0.100	0.104		mg/L		86	70 - 130		
Molybdenum	0.052		0.100	0.155		mg/L		103	70 - 130		
Selenium	0.0021	B1 M1	0.100	0.127		mg/L		125	70 - 130		
Thallium	0.00013		0.100	0.0882		mg/L		88	70 - 130		

Lab Sample ID: 550-217859-22 MSD
Matrix: Water
Analysis Batch: 320659

Client Sample ID: CH-CCR-TWX5-0424
Prep Type: Total/NA
Prep Batch: 320442

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.106		mg/L		106	70 - 130	2	20
Arsenic	0.0031		0.100	0.119		mg/L		116	70 - 130	4	20
Barium	0.0067		0.100	0.106		mg/L		99	70 - 130	4	20
Cadmium	0.00024		0.100	0.0911		mg/L		91	70 - 130	3	20

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

Lab Sample ID: 550-217859-22 MSD — **Client Sample ID: CH-CCR-TWX5-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320659 — **Prep Batch: 320442**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium	0.0075		0.100	0.115		mg/L		108	70 - 130	6	20
Cobalt	0.012		0.100	0.113		mg/L		102	70 - 130	4	20
Lead	0.018		0.100	0.106		mg/L		88	70 - 130	2	20
Molybdenum	0.052		0.100	0.160		mg/L		108	70 - 130	3	20
Selenium	0.0021	B1 M1	0.100	0.134	M1	mg/L		132	70 - 130	5	20
Thallium	0.00013		0.100	0.0902		mg/L		90	70 - 130	2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-320665/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320693 — **Prep Batch: 320665**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/10/24 12:08	05/10/24 15:01	1

Lab Sample ID: LCS 550-320665/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320693 — **Prep Batch: 320665**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00522		mg/L		104	85 - 115		

Lab Sample ID: LCSD 550-320665/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320693 — **Prep Batch: 320665**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00517		mg/L		103	85 - 115	1	20

Lab Sample ID: 550-217933-A-4-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320693 — **Prep Batch: 320665**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00509		mg/L		102	70 - 130		

Lab Sample ID: 550-217933-A-4-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320693 — **Prep Batch: 320665**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00511		mg/L		102	70 - 130	1	20

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-320941/112
Matrix: Water
Analysis Batch: 320941

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.0590	B7	0.050		mg/L			05/14/24 20:38	1

Lab Sample ID: LCS 550-320941/113
Matrix: Water
Analysis Batch: 320941

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.999		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-320941/114
Matrix: Water
Analysis Batch: 320941

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	1.01		mg/L		101	90 - 110	1	20

Lab Sample ID: 550-218103-K-6 MS
Matrix: Water
Analysis Batch: 320941

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	ND		1.00	0.992		mg/L		99	90 - 110		

Lab Sample ID: 550-218103-K-6 MSD
Matrix: Water
Analysis Batch: 320941

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	ND		1.00	0.999		mg/L		100	90 - 110	1	20

Lab Sample ID: MB 550-321173/21
Matrix: Water
Analysis Batch: 321173

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			05/17/24 14:15	1

Lab Sample ID: MB 550-321173/60
Matrix: Water
Analysis Batch: 321173

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			05/17/24 15:14	1

Lab Sample ID: LCS 550-321173/22
Matrix: Water
Analysis Batch: 321173

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.974		mg/L		97	90 - 110		

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: LCS 550-321173/61
Matrix: Water
Analysis Batch: 321173

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.958		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-321173/23
Matrix: Water
Analysis Batch: 321173

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.960		mg/L		96	90 - 110	1	20

Lab Sample ID: LCSD 550-321173/62
Matrix: Water
Analysis Batch: 321173

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.933		mg/L		93	90 - 110	3	20

Lab Sample ID: 550-217784-E-2 MS
Matrix: Water
Analysis Batch: 321173

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	16	M2	10.0	17.9	M2	mg/L		17	90 - 110		

Lab Sample ID: 550-217784-E-2 MSD
Matrix: Water
Analysis Batch: 321173

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	16	M2	10.0	16.8	M2	mg/L		7	90 - 110	6	20

Lab Sample ID: 550-217859-18 MS
Matrix: Water
Analysis Batch: 321173

Client Sample ID: CH-CCR-TannerWash-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.31		1.00	1.31		mg/L		100	90 - 110		

Lab Sample ID: 550-217859-18 MSD
Matrix: Water
Analysis Batch: 321173

Client Sample ID: CH-CCR-TannerWash-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.31		1.00	1.30		mg/L		99	90 - 110	1	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-653503/20
Matrix: Water
Analysis Batch: 653503

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			05/14/24 14:15	1

Lab Sample ID: LCS 280-653503/18
Matrix: Water
Analysis Batch: 653503

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			1.00	0.940		mg/L		94	90 - 110		

Lab Sample ID: 280-190890-A-5 MS
Matrix: Water
Analysis Batch: 653503

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	3.5	M1	2.00	5.88	M1	mg/L		118	90 - 110		

Lab Sample ID: 280-190890-A-5 MSD
Matrix: Water
Analysis Batch: 653503

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	3.5	M1	2.00	5.80	M1	mg/L		114	90 - 110	1	10

Lab Sample ID: MB 280-653767/20
Matrix: Water
Analysis Batch: 653767

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			05/15/24 18:21	1

Lab Sample ID: MB 280-653767/57
Matrix: Water
Analysis Batch: 653767

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			05/15/24 19:35	1

Lab Sample ID: LCS 280-653767/18
Matrix: Water
Analysis Batch: 653767

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			1.00	0.974		mg/L		97	90 - 110		

Lab Sample ID: LCS 280-653767/55
Matrix: Water
Analysis Batch: 653767

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			1.00	0.996		mg/L		100	90 - 110		

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: LCSD 280-653767/19
Matrix: Water
Analysis Batch: 653767

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			1.00	0.946		mg/L		95	90 - 110	3	10

Lab Sample ID: LCSD 280-653767/56
Matrix: Water
Analysis Batch: 653767

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			1.00	1.10		mg/L		110	90 - 110	10	10

Lab Sample ID: 280-190701-A-16 MS
Matrix: Water
Analysis Batch: 653767

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	0.15		2.00	2.14		mg/L		99	90 - 110		

Lab Sample ID: 280-190701-A-16 MSD
Matrix: Water
Analysis Batch: 653767

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.15		2.00	2.05		mg/L		95	90 - 110	4	10

Lab Sample ID: 280-190959-B-1 MS
Matrix: Water
Analysis Batch: 653767

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	4.5	M1	4.00	9.03	M1	mg/L		113	90 - 110		

Lab Sample ID: 280-190959-B-1 MSD
Matrix: Water
Analysis Batch: 653767

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	4.5	M1	4.00	8.44		mg/L		98	90 - 110	7	10

Lab Sample ID: MB 280-654121/20
Matrix: Water
Analysis Batch: 654121

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			05/20/24 15:41	1

Lab Sample ID: LCS 280-654121/18
Matrix: Water
Analysis Batch: 654121

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			1.00	0.980		mg/L		98	90 - 110		

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: LCSD 280-654121/19
Matrix: Water
Analysis Batch: 654121

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			1.00	0.979		mg/L		98	90 - 110	0	10

Lab Sample ID: 550-217859-22 MS
Matrix: Water
Analysis Batch: 654121

Client Sample ID: CH-CCR-TWX5-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	ND		2.00	1.95		mg/L		97	90 - 110		

Lab Sample ID: 550-217859-22 MSD
Matrix: Water
Analysis Batch: 654121

Client Sample ID: CH-CCR-TWX5-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		2.00	1.94		mg/L		97	90 - 110	1	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-320660/4
Matrix: Water
Analysis Batch: 320660

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			05/09/24 10:21	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			05/09/24 10:21	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/09/24 10:21	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/09/24 10:21	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			05/09/24 10:21	1

Lab Sample ID: LCS 550-320660/3
Matrix: Water
Analysis Batch: 320660

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	240		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-320660/16
Matrix: Water
Analysis Batch: 320660

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	240		mg/L		96	90 - 110	0	20

Lab Sample ID: MB 550-320836/4
Matrix: Water
Analysis Batch: 320836

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			05/13/24 10:33	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			05/13/24 10:33	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 550-320836/4
Matrix: Water
Analysis Batch: 320836

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/13/24 10:33	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/13/24 10:33	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			05/13/24 10:33	1

Lab Sample ID: LCS 550-320836/3
Matrix: Water
Analysis Batch: 320836

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	242		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320836/15
Matrix: Water
Analysis Batch: 320836

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	243		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-217859-8 DU
Matrix: Water
Analysis Batch: 320836

Client Sample ID: CH-CCR-FD02-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	120			117		mg/L				0.3	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	120			117		mg/L				0.3	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Lab Sample ID: 550-217859-28 DU
Matrix: Water
Analysis Batch: 320836

Client Sample ID: CH-CCR-TWX8-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	92			92.5		mg/L				0.5	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	92			92.5		mg/L				0.5	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

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

Lab Sample ID: MB 550-320387/1
Matrix: Water
Analysis Batch: 320387

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			05/06/24 11:18	1

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

Lab Sample ID: LCS 550-320387/2
Matrix: Water
Analysis Batch: 320387

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	972		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320387/3
Matrix: Water
Analysis Batch: 320387

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	972		mg/L		97	90 - 110	0	10

Lab Sample ID: 550-217864-A-2 DU
Matrix: Water
Analysis Batch: 320387

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2800			2690		mg/L				4	10

Lab Sample ID: MB 550-320434/1
Matrix: Water
Analysis Batch: 320434

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			05/07/24 08:46	1

Lab Sample ID: LCS 550-320434/2
Matrix: Water
Analysis Batch: 320434

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	976		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-320434/3
Matrix: Water
Analysis Batch: 320434

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	936		mg/L		94	90 - 110	4	10

Lab Sample ID: 550-217765-B-32 DU
Matrix: Water
Analysis Batch: 320434

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1400			1380		mg/L				2	10

Lab Sample ID: 550-217859-14 DU
Matrix: Water
Analysis Batch: 320434

Client Sample ID: CH-CCR-BAP-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	7000			6790		mg/L				3	10

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

Lab Sample ID: MB 550-320464/1
Matrix: Water
Analysis Batch: 320464

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			05/07/24 15:03	1

Lab Sample ID: LCS 550-320464/2
Matrix: Water
Analysis Batch: 320464

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	1000		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-320464/3
Matrix: Water
Analysis Batch: 320464

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1100		mg/L		110	90 - 110	9	10

Lab Sample ID: 550-217777-B-1 DU
Matrix: Water
Analysis Batch: 320464

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	600			616		mg/L				3	10

Lab Sample ID: 550-217871-A-1 DU
Matrix: Water
Analysis Batch: 320464

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2900	R8		2220	R8	mg/L				27	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-320888/13
Matrix: Water
Analysis Batch: 320888

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.4	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-320888/25
Matrix: Water
Analysis Batch: 320888

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.1		SU		101.0	98.5 - 101.5		

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: LCSSRM 550-320888/37
Matrix: Water
Analysis Batch: 320888

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.4	98.5 - 101.5		

Lab Sample ID: 550-217859-20 DU
Matrix: Water
Analysis Batch: 320888

Client Sample ID: CH-CCR-TWX4-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.6	H5		7.6		SU				0.3	5
Temperature	16.4	H5 T5		16.3		Degrees C				0.6	

Lab Sample ID: LCSSRM 550-321067/1
Matrix: Water
Analysis Batch: 321067

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.9	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-321067/13
Matrix: Water
Analysis Batch: 321067

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

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100.1	98.5 - 101.5		

Lab Sample ID: 550-218464-B-1 DU
Matrix: Water
Analysis Batch: 321067

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.0			7.0		SU				0.3	5
Temperature	13.3			13.1		Degrees C				2	

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 550-320516/6
Matrix: Water
Analysis Batch: 320516

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.50		mg/L			05/07/24 13:32	1
Total Organic Carbon - Duplicates	ND		0.50		mg/L			05/07/24 13:32	1
Total Organic Carbon - Quad	ND		0.50		mg/L			05/07/24 13:32	1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 550-320516/7
Matrix: Water
Analysis Batch: 320516

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	19.1		mg/L		96	90 - 110
Total Organic Carbon - Duplicates	20.0	19.1		mg/L		96	90 - 110
Total Organic Carbon - Quad	20.0	19.1		mg/L		96	90 - 110

Lab Sample ID: LCSD 550-320516/8
Matrix: Water
Analysis Batch: 320516

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.2		mg/L		96	90 - 110	0	20
Total Organic Carbon - Duplicates	20.0	19.2		mg/L		96	90 - 110	0	20
Total Organic Carbon - Quad	20.0	19.2		mg/L		96	90 - 110	0	20

Lab Sample ID: 550-217745-D-1 MS ^4
Matrix: Water
Analysis Batch: 320516

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	7.7	M2 D1	80.0	87.8	D1	mg/L		100	90 - 110
Total Organic Carbon - Duplicates	7.8	M2 D1	80.0	87.8	D1	mg/L		100	90 - 110
Total Organic Carbon - Quad	7.7	M2 D1	80.0	87.8	D1	mg/L		100	90 - 110

Lab Sample ID: 550-217745-D-1 MSD ^4
Matrix: Water
Analysis Batch: 320516

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	7.7	M2 D1	80.0	87.8	D1	mg/L		100	90 - 110	0	20
Total Organic Carbon - Duplicates	7.8	M2 D1	80.0	87.8	D1	mg/L		100	90 - 110	0	20
Total Organic Carbon - Quad	7.7	M2 D1	80.0	87.8	D1	mg/L		100	90 - 110	0	20

Lab Sample ID: MB 550-320655/6
Matrix: Water
Analysis Batch: 320655

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.50	mg/L			05/09/24 18:14	1
Total Organic Carbon - Duplicates	ND		0.50	mg/L			05/09/24 18:14	1
Total Organic Carbon - Quad	ND		0.50	mg/L			05/09/24 18:14	1

Lab Sample ID: LCS 550-320655/7
Matrix: Water
Analysis Batch: 320655

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	19.0		mg/L		95	90 - 110

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 550-320655/7
Matrix: Water
Analysis Batch: 320655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Duplicates	20.0	19.0		mg/L		95	90 - 110
Total Organic Carbon - Quad	20.0	19.0		mg/L		95	90 - 110

Lab Sample ID: LCSD 550-320655/8
Matrix: Water
Analysis Batch: 320655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.8		mg/L		99	90 - 110	4	20
Total Organic Carbon - Duplicates	20.0	19.8		mg/L		99	90 - 110	4	20
Total Organic Carbon - Quad	20.0	19.8		mg/L		99	90 - 110	4	20

Lab Sample ID: 550-217943-E-1 MS ^4
Matrix: Water
Analysis Batch: 320655

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	7.7		80.0	88.1		mg/L		100	90 - 110
Total Organic Carbon - Duplicates	7.8		80.0	88.1		mg/L		100	90 - 110
Total Organic Carbon - Quad	7.7		80.0	88.1		mg/L		100	90 - 110

Lab Sample ID: 550-217943-E-1 MSD ^4
Matrix: Water
Analysis Batch: 320655

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	7.7		80.0	86.9		mg/L		99	90 - 110	1	20
Total Organic Carbon - Duplicates	7.8		80.0	86.9		mg/L		99	90 - 110	1	20
Total Organic Carbon - Quad	7.7		80.0	86.9		mg/L		99	90 - 110	1	20

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 550-320448/6
Matrix: Water
Analysis Batch: 320448

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50	mg/L			05/06/24 13:44	1
Dissolved Organic Carbon - Duplicate	ND		0.50	mg/L			05/06/24 13:44	1
Dissolved Organic Carbon - Quad	ND		0.50	mg/L			05/06/24 13:44	1

Lab Sample ID: LCS 550-320448/7
Matrix: Water
Analysis Batch: 320448

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.1		mg/L		96	90 - 110

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCS 550-320448/7
Matrix: Water
Analysis Batch: 320448

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon - Duplicate			20.0	19.1		mg/L		96	90 - 110		
Dissolved Organic Carbon - Quad			20.0	19.1		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-320448/8
Matrix: Water
Analysis Batch: 320448

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.1		mg/L		95	90 - 110	0	20
Dissolved Organic Carbon - Duplicate			20.0	19.1		mg/L		95	90 - 110	0	20
Dissolved Organic Carbon - Quad			20.0	19.1		mg/L		95	90 - 110	0	20

Lab Sample ID: 550-217592-C-17 MS
Matrix: Water
Analysis Batch: 320448

Client Sample ID: Matrix Spike
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	3.0		20.0	23.6		mg/L		103	90 - 110		
Dissolved Organic Carbon - Duplicate	3.0		20.0	23.6		mg/L		103	90 - 110		
Dissolved Organic Carbon - Quad	3.0		20.0	23.6		mg/L		103	90 - 110		

Lab Sample ID: 550-217592-C-17 MSD
Matrix: Water
Analysis Batch: 320448

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	3.0		20.0	23.7		mg/L		104	90 - 110	1	20
Dissolved Organic Carbon - Duplicate	3.0		20.0	23.7		mg/L		104	90 - 110	1	20
Dissolved Organic Carbon - Quad	3.0		20.0	23.7		mg/L		104	90 - 110	1	20

Lab Sample ID: MB 550-320900/6
Matrix: Water
Analysis Batch: 320900

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			05/13/24 16:16	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			05/13/24 16:16	1
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			05/13/24 16:16	1

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCS 550-320900/7
Matrix: Water
Analysis Batch: 320900

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	20.1		mg/L		100	90 - 110		
Dissolved Organic Carbon - Duplicate			20.0	20.1		mg/L		100	90 - 110		
Dissolved Organic Carbon - Quad			20.0	20.1		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-320900/8
Matrix: Water
Analysis Batch: 320900

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.6		mg/L		98	90 - 110	3	20
Dissolved Organic Carbon - Duplicate			20.0	19.6		mg/L		98	90 - 110	3	20
Dissolved Organic Carbon - Quad			20.0	19.6		mg/L		98	90 - 110	3	20

Lab Sample ID: 550-217871-C-5 MS ^50
Matrix: Water
Analysis Batch: 320900

Client Sample ID: Matrix Spike
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	110	D2	1000	1110	D2	mg/L		100	90 - 110		
Dissolved Organic Carbon - Duplicate	110	D2	1000	1110	D2	mg/L		100	90 - 110		
Dissolved Organic Carbon - Quad	110	D2	1000	1110	D2	mg/L		100	90 - 110		

Lab Sample ID: 550-217871-C-5 MSD ^50
Matrix: Water
Analysis Batch: 320900

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	110	D2	1000	1100	D2	mg/L		99	90 - 110	1	20
Dissolved Organic Carbon - Duplicate	110	D2	1000	1100	D2	mg/L		99	90 - 110	1	20
Dissolved Organic Carbon - Quad	110	D2	1000	1100	D2	mg/L		99	90 - 110	1	20

HPLC/IC

Analysis Batch: 320753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	300.0	
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	300.0	
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	300.0	
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	300.0	
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	300.0	
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	300.0	
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	300.0	
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	300.0	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	300.0	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	300.0	
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	300.0	
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	300.0	
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	300.0	
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	300.0	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	300.0	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	300.0	
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	300.0	
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	300.0	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	300.0	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	300.0	
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	300.0	
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	300.0	
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	300.0	
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	300.0	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	300.0	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	300.0	
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	300.0	
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	300.0	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	300.0	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	300.0	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	300.0	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	300.0	
MB 550-320753/2	Method Blank	Total/NA	Water	300.0	
LCS 550-320753/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-320753/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217859-2 MS	CH-CCR-MW71A-0424	Total/NA	Water	300.0	
550-217859-2 MSD	CH-CCR-MW71A-0424	Total/NA	Water	300.0	

Analysis Batch: 320803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	300.0	
MB 550-320803/2	Method Blank	Total/NA	Water	300.0	
LCS 550-320803/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-320803/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217864-B-2 MS ^20	Matrix Spike	Total/NA	Water	300.0	
550-217864-B-2 MSD ^20	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 320441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-1	CH-CCR-MW71A-0424	Dissolved	Water	200.8	
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	200.8	
550-217859-3	CH-CCR-MW72M-0424	Dissolved	Water	200.8	
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	200.8	
550-217859-5	CH-CCR-MW79A-0424	Dissolved	Water	200.8	
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	200.8	
550-217859-7	CH-CCR-FD02-0424	Dissolved	Water	200.8	
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	200.8	
550-217859-9	CH-CCR-W305-0424	Dissolved	Water	200.8	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	200.8	
550-217859-11	CH-CCR-W314-0424	Dissolved	Water	200.8	
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	200.8	
550-217859-13	CH-CCR-BAP-0424	Dissolved	Water	200.8	
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	200.8	
550-217859-15	CH-CCR-Petroglyph-0424	Dissolved	Water	200.8	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	200.8	
550-217859-17	CH-CCR-TannerWash-0424	Dissolved	Water	200.8	
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	200.8	
550-217859-19	CH-CCR-TWX4-0424	Dissolved	Water	200.8	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	200.8	
MB 550-320441/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-320441/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-320441/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-217859-2 MS	CH-CCR-MW71A-0424	Total/NA	Water	200.8	
550-217859-2 MSD	CH-CCR-MW71A-0424	Total/NA	Water	200.8	

Prep Batch: 320442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-21	CH-CCR-TWX5-0424	Dissolved	Water	200.8	
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	200.8	
550-217859-23	CH-CCR-TWX6-0424	Dissolved	Water	200.8	
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	200.8	
550-217859-25	CH-CCR-TWX7-0424	Dissolved	Water	200.8	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	200.8	
550-217859-27	CH-CCR-TWX8-0424	Dissolved	Water	200.8	
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	200.8	
550-217859-29	CH-CCR-TWX9-0424	Dissolved	Water	200.8	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	200.8	
550-217859-31	CH-CCR-TWX10-0424	Dissolved	Water	200.8	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	200.8	
MB 550-320442/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-320442/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-320442/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-217859-22 MS	CH-CCR-TWX5-0424	Total/NA	Water	200.8	
550-217859-22 MSD	CH-CCR-TWX5-0424	Total/NA	Water	200.8	

Prep Batch: 320443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-1	CH-CCR-MW71A-0424	Dissolved	Water	200.7	
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	200.7	
550-217859-3	CH-CCR-MW72M-0424	Dissolved	Water	200.7	

Metals (Continued)

Prep Batch: 320443 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	200.7	
550-217859-5	CH-CCR-MW79A-0424	Dissolved	Water	200.7	
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	200.7	
550-217859-7	CH-CCR-FD02-0424	Dissolved	Water	200.7	
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	200.7	
550-217859-9	CH-CCR-W305-0424	Dissolved	Water	200.7	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	200.7	
550-217859-11	CH-CCR-W314-0424	Dissolved	Water	200.7	
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	200.7	
550-217859-13	CH-CCR-BAP-0424	Dissolved	Water	200.7	
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	200.7	
550-217859-15	CH-CCR-Petroglyph-0424	Dissolved	Water	200.7	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	200.7	
550-217859-17	CH-CCR-TannerWash-0424	Dissolved	Water	200.7	
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	200.7	
550-217859-19	CH-CCR-TWX4-0424	Dissolved	Water	200.7	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	200.7	
MB 550-320443/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-320443/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-320443/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217859-4 MS	CH-CCR-MW72M-0424	Total/NA	Water	200.7	
550-217859-4 MSD	CH-CCR-MW72M-0424	Total/NA	Water	200.7	

Prep Batch: 320444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-21	CH-CCR-TWX5-0424	Dissolved	Water	200.7	
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	200.7	
550-217859-23	CH-CCR-TWX6-0424	Dissolved	Water	200.7	
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	200.7	
550-217859-25	CH-CCR-TWX7-0424	Dissolved	Water	200.7	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	200.7	
550-217859-27	CH-CCR-TWX8-0424	Dissolved	Water	200.7	
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	200.7	
550-217859-29	CH-CCR-TWX9-0424	Dissolved	Water	200.7	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	200.7	
550-217859-31	CH-CCR-TWX10-0424	Dissolved	Water	200.7	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	200.7	
MB 550-320444/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-320444/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-320444/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217859-24 MS	CH-CCR-TWX6-0424	Total/NA	Water	200.7	
550-217859-24 MSD	CH-CCR-TWX6-0424	Total/NA	Water	200.7	

Analysis Batch: 320659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-21	CH-CCR-TWX5-0424	Dissolved	Water	200.8 LL	320442
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	200.8 LL	320442
550-217859-23	CH-CCR-TWX6-0424	Dissolved	Water	200.8 LL	320442
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	200.8 LL	320442
550-217859-25	CH-CCR-TWX7-0424	Dissolved	Water	200.8 LL	320442
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	200.8 LL	320442

Metals (Continued)

Analysis Batch: 320659 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-27	CH-CCR-TWX8-0424	Dissolved	Water	200.8 LL	320442
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	200.8 LL	320442
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	200.8 LL	320442
MB 550-320442/1-A	Method Blank	Total/NA	Water	200.8 LL	320442
LCS 550-320442/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	320442
LCSD 550-320442/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	320442
550-217859-22 MS	CH-CCR-TWX5-0424	Total/NA	Water	200.8 LL	320442
550-217859-22 MSD	CH-CCR-TWX5-0424	Total/NA	Water	200.8 LL	320442

Prep Batch: 320665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	245.1	
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	245.1	
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	245.1	
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	245.1	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	245.1	
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	245.1	
MB 550-320665/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-320665/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-320665/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-217933-A-4-B MS	Matrix Spike	Total/NA	Water	245.1	
550-217933-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 320693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	245.1	320665
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	245.1	320665
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	245.1	320665
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	245.1	320665
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	245.1	320665
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	245.1	320665
MB 550-320665/1-A	Method Blank	Total/NA	Water	245.1	320665
LCS 550-320665/2-A	Lab Control Sample	Total/NA	Water	245.1	320665
LCSD 550-320665/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	320665
550-217933-A-4-B MS	Matrix Spike	Total/NA	Water	245.1	320665
550-217933-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	320665

Analysis Batch: 320785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	200.8 LL	320442
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	200.8 LL	320442
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	200.8 LL	320442
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	200.8 LL	320442
550-217859-29	CH-CCR-TWX9-0424	Dissolved	Water	200.8 LL	320442
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	200.8 LL	320442
550-217859-31	CH-CCR-TWX10-0424	Dissolved	Water	200.8 LL	320442
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	200.8 LL	320442
MB 550-320442/1-A	Method Blank	Total/NA	Water	200.8 LL	320442
LCS 550-320442/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	320442
LCSD 550-320442/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	320442

Metals

Analysis Batch: 320867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-21	CH-CCR-TWX5-0424	Dissolved	Water	200.7	320444
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-23	CH-CCR-TWX6-0424	Dissolved	Water	200.7	320444
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-25	CH-CCR-TWX7-0424	Dissolved	Water	200.7	320444
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-27	CH-CCR-TWX8-0424	Dissolved	Water	200.7	320444
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-29	CH-CCR-TWX9-0424	Dissolved	Water	200.7	320444
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-31	CH-CCR-TWX10-0424	Dissolved	Water	200.7	320444
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	200.7 Rev 4.4	320444
MB 550-320444/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	320444
LCS 550-320444/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	320444
LCSD 550-320444/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-24 MS	CH-CCR-TWX6-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-24 MSD	CH-CCR-TWX6-0424	Total/NA	Water	200.7 Rev 4.4	320444

Analysis Batch: 320868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-1	CH-CCR-MW71A-0424	Dissolved	Water	200.7	320443
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-3	CH-CCR-MW72M-0424	Dissolved	Water	200.7	320443
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-5	CH-CCR-MW79A-0424	Dissolved	Water	200.7	320443
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-7	CH-CCR-FD02-0424	Dissolved	Water	200.7	320443
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-9	CH-CCR-W305-0424	Dissolved	Water	200.7	320443
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-11	CH-CCR-W314-0424	Dissolved	Water	200.7	320443
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-13	CH-CCR-BAP-0424	Dissolved	Water	200.7	320443
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-15	CH-CCR-Petroglyph-0424	Dissolved	Water	200.7	320443
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-17	CH-CCR-TannerWash-0424	Dissolved	Water	200.7	320443
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-19	CH-CCR-TWX4-0424	Dissolved	Water	200.7	320443
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	200.7 Rev 4.4	320443
MB 550-320443/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	320443
LCS 550-320443/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	320443
LCSD 550-320443/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-4 MS	CH-CCR-MW72M-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-4 MSD	CH-CCR-MW72M-0424	Total/NA	Water	200.7 Rev 4.4	320443

Analysis Batch: 320922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	200.7 Rev 4.4	320444

Metals (Continued)

Analysis Batch: 320922 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	200.7 Rev 4.4	320444
MB 550-320444/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	320444
LCS 550-320444/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	320444
LCSD 550-320444/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-24 MS	CH-CCR-TWX6-0424	Total/NA	Water	200.7 Rev 4.4	320444
550-217859-24 MSD	CH-CCR-TWX6-0424	Total/NA	Water	200.7 Rev 4.4	320444

Analysis Batch: 320923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	200.7 Rev 4.4	320443
MB 550-320443/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	320443
LCS 550-320443/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	320443
LCSD 550-320443/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-4 MS	CH-CCR-MW72M-0424	Total/NA	Water	200.7 Rev 4.4	320443
550-217859-4 MSD	CH-CCR-MW72M-0424	Total/NA	Water	200.7 Rev 4.4	320443

Analysis Batch: 320975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-1	CH-CCR-MW71A-0424	Dissolved	Water	200.8 LL	320441
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	200.8 LL	320441
550-217859-3	CH-CCR-MW72M-0424	Dissolved	Water	200.8 LL	320441
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	200.8 LL	320441
550-217859-5	CH-CCR-MW79A-0424	Dissolved	Water	200.8 LL	320441
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	200.8 LL	320441
550-217859-7	CH-CCR-FD02-0424	Dissolved	Water	200.8 LL	320441
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	200.8 LL	320441
550-217859-9	CH-CCR-W305-0424	Dissolved	Water	200.8 LL	320441
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	200.8 LL	320441
550-217859-11	CH-CCR-W314-0424	Dissolved	Water	200.8 LL	320441
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	200.8 LL	320441
550-217859-13	CH-CCR-BAP-0424	Dissolved	Water	200.8 LL	320441
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	200.8 LL	320441
550-217859-15	CH-CCR-Petroglyph-0424	Dissolved	Water	200.8 LL	320441
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	200.8 LL	320441
550-217859-17	CH-CCR-TannerWash-0424	Dissolved	Water	200.8 LL	320441
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	200.8 LL	320441
550-217859-19	CH-CCR-TWX4-0424	Dissolved	Water	200.8 LL	320441
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	200.8 LL	320441
MB 550-320441/1-A	Method Blank	Total/NA	Water	200.8 LL	320441
LCS 550-320441/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	320441
LCSD 550-320441/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	320441

Metals (Continued)

Analysis Batch: 320975 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2 MS	CH-CCR-MW71A-0424	Total/NA	Water	200.8 LL	320441
550-217859-2 MSD	CH-CCR-MW71A-0424	Total/NA	Water	200.8 LL	320441

Prep Batch: 652235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total Recoverable	Water	200.7	
550-217859-4	CH-CCR-MW72M-0424	Total Recoverable	Water	200.7	
550-217859-6	CH-CCR-MW79A-0424	Total Recoverable	Water	200.7	
550-217859-8	CH-CCR-FD02-0424	Total Recoverable	Water	200.7	
550-217859-10	CH-CCR-W305-0424	Total Recoverable	Water	200.7	
550-217859-12	CH-CCR-W314-0424	Total Recoverable	Water	200.7	
550-217859-14	CH-CCR-BAP-0424	Total Recoverable	Water	200.7	
550-217859-16	CH-CCR-Petroglyph-0424	Total Recoverable	Water	200.7	
550-217859-18	CH-CCR-TannerWash-0424	Total Recoverable	Water	200.7	
550-217859-20	CH-CCR-TWX4-0424	Total Recoverable	Water	200.7	
550-217859-22	CH-CCR-TWX5-0424	Total Recoverable	Water	200.7	
550-217859-24	CH-CCR-TWX6-0424	Total Recoverable	Water	200.7	
MB 280-652235/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-652235/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-652235/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
550-217859-2 MS	CH-CCR-MW71A-0424	Total Recoverable	Water	200.7	
550-217859-2 MSD	CH-CCR-MW71A-0424	Total Recoverable	Water	200.7	

Prep Batch: 652239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-26	CH-CCR-TWX7-0424	Total Recoverable	Water	200.7	
550-217859-28	CH-CCR-TWX8-0424	Total Recoverable	Water	200.7	
550-217859-30	CH-CCR-TWX9-0424	Total Recoverable	Water	200.7	
550-217859-32	CH-CCR-TWX10-0424	Total Recoverable	Water	200.7	
MB 280-652239/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-652239/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
280-191004-D-10-B MS	Matrix Spike	Total/NA	Water	200.7	
280-191004-D-10-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 653128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-4	CH-CCR-MW72M-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
MB 280-652235/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	652235
LCS 280-652235/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	652235
LCSD 280-652235/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	652235

Analysis Batch: 653314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-26	CH-CCR-TWX7-0424	Total Recoverable	Water	200.7 Rev 4.4	652239
550-217859-28	CH-CCR-TWX8-0424	Total Recoverable	Water	200.7 Rev 4.4	652239
550-217859-30	CH-CCR-TWX9-0424	Total Recoverable	Water	200.7 Rev 4.4	652239
MB 280-652239/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	652239
LCS 280-652239/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	652239
280-191004-D-10-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	652239
280-191004-D-10-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	652239

Metals

Analysis Batch: 653318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-6	CH-CCR-MW79A-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-8	CH-CCR-FD02-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-10	CH-CCR-W305-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-12	CH-CCR-W314-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-14	CH-CCR-BAP-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-16	CH-CCR-Petroglyph-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-18	CH-CCR-TannerWash-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-20	CH-CCR-TWX4-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-22	CH-CCR-TWX5-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-24	CH-CCR-TWX6-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-2 MS	CH-CCR-MW71A-0424	Total Recoverable	Water	200.7 Rev 4.4	652235
550-217859-2 MSD	CH-CCR-MW71A-0424	Total Recoverable	Water	200.7 Rev 4.4	652235

Analysis Batch: 653481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-32	CH-CCR-TWX10-0424	Total Recoverable	Water	200.7 Rev 4.4	652239

General Chemistry

Analysis Batch: 320387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	SM 2540C	
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	SM 2540C	
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	SM 2540C	
MB 550-320387/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320387/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320387/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217864-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 320434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	SM 2540C	
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	SM 2540C	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	SM 2540C	
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	SM 2540C	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	SM 2540C	
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	SM 2540C	
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	SM 2540C	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	SM 2540C	
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	SM 2540C	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	SM 2540C	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	SM 2540C	
MB 550-320434/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320434/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320434/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217765-B-32 DU	Duplicate	Total/NA	Water	SM 2540C	
550-217859-14 DU	CH-CCR-BAP-0424	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 320448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-1	CH-CCR-MW71A-0424	Dissolved	Water	SM 5310B	
550-217859-3	CH-CCR-MW72M-0424	Dissolved	Water	SM 5310B	
550-217859-5	CH-CCR-MW79A-0424	Dissolved	Water	SM 5310B	
550-217859-7	CH-CCR-FD02-0424	Dissolved	Water	SM 5310B	
MB 550-320448/6	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-320448/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-320448/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-217592-C-17 MS	Matrix Spike	Dissolved	Water	SM 5310B	
550-217592-C-17 MSD	Matrix Spike Duplicate	Dissolved	Water	SM 5310B	

Analysis Batch: 320464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	SM 2540C	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	SM 2540C	
MB 550-320464/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320464/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320464/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217777-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	
550-217871-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 320516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	SM 5310B	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	SM 5310B	
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	SM 5310B	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	SM 5310B	
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	SM 5310B	
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	SM 5310B	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	SM 5310B	
MB 550-320516/6	Method Blank	Total/NA	Water	SM 5310B	
LCS 550-320516/7	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 550-320516/8	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
550-217745-D-1 MS ^4	Matrix Spike	Total/NA	Water	SM 5310B	
550-217745-D-1 MSD ^4	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 320655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	SM 5310B	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	SM 5310B	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	SM 5310B	
MB 550-320655/6	Method Blank	Total/NA	Water	SM 5310B	
LCS 550-320655/7	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 550-320655/8	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
550-217943-E-1 MS ^4	Matrix Spike	Total/NA	Water	SM 5310B	
550-217943-E-1 MSD ^4	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 320660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	SM 2320B	
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	SM 2320B	
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 320660 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-320660/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320660/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320660/16	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 320836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	SM 2320B	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	SM 2320B	
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	SM 2320B	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	SM 2320B	
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	SM 2320B	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	SM 2320B	
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	SM 2320B	
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	SM 2320B	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	SM 2320B	
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	SM 2320B	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	SM 2320B	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	SM 2320B	
MB 550-320836/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320836/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320836/15	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217859-8 DU	CH-CCR-FD02-0424	Total/NA	Water	SM 2320B	
550-217859-28 DU	CH-CCR-TWX8-0424	Total/NA	Water	SM 2320B	

Analysis Batch: 320888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	SM 4500 H+ B	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320888/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320888/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320888/37	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-217859-20 DU	CH-CCR-TWX4-0424	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 320900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-9	CH-CCR-W305-0424	Dissolved	Water	SM 5310B	
550-217859-11	CH-CCR-W314-0424	Dissolved	Water	SM 5310B	
550-217859-13	CH-CCR-BAP-0424	Dissolved	Water	SM 5310B	

General Chemistry (Continued)

Analysis Batch: 320900 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-15	CH-CCR-Petroglyph-0424	Dissolved	Water	SM 5310B	
550-217859-17	CH-CCR-TannerWash-0424	Dissolved	Water	SM 5310B	
550-217859-19	CH-CCR-TWX4-0424	Dissolved	Water	SM 5310B	
550-217859-21	CH-CCR-TWX5-0424	Dissolved	Water	SM 5310B	
550-217859-23	CH-CCR-TWX6-0424	Dissolved	Water	SM 5310B	
550-217859-25	CH-CCR-TWX7-0424	Dissolved	Water	SM 5310B	
550-217859-27	CH-CCR-TWX8-0424	Dissolved	Water	SM 5310B	
550-217859-29	CH-CCR-TWX9-0424	Dissolved	Water	SM 5310B	
550-217859-31	CH-CCR-TWX10-0424	Dissolved	Water	SM 5310B	
MB 550-320900/6	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-320900/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-320900/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-217871-C-5 MS ^50	Matrix Spike	Dissolved	Water	SM 5310B	
550-217871-C-5 MSD ^50	Matrix Spike Duplicate	Dissolved	Water	SM 5310B	

Analysis Batch: 320941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	350.1	
MB 550-320941/112	Method Blank	Total/NA	Water	350.1	
LCS 550-320941/113	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-320941/114	Lab Control Sample Dup	Total/NA	Water	350.1	
550-218103-K-6 MS	Matrix Spike	Total/NA	Water	350.1	
550-218103-K-6 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 321067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-321067/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-321067/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-218464-B-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 321173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	350.1	
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	350.1	
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	350.1	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	350.1	
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	350.1	
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	350.1	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	350.1	
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	350.1	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	350.1	
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	350.1	
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	350.1	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	350.1	
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	350.1	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	350.1	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	350.1	
MB 550-321173/21	Method Blank	Total/NA	Water	350.1	
MB 550-321173/60	Method Blank	Total/NA	Water	350.1	
LCS 550-321173/22	Lab Control Sample	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 321173 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-321173/61	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-321173/23	Lab Control Sample Dup	Total/NA	Water	350.1	
LCSD 550-321173/62	Lab Control Sample Dup	Total/NA	Water	350.1	
550-217784-E-2 MS	Matrix Spike	Total/NA	Water	350.1	
550-217784-E-2 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
550-217859-18 MS	CH-CCR-TannerWash-0424	Total/NA	Water	350.1	
550-217859-18 MSD	CH-CCR-TannerWash-0424	Total/NA	Water	350.1	

Analysis Batch: 653503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-2	CH-CCR-MW71A-0424	Total/NA	Water	353.2	
550-217859-4	CH-CCR-MW72M-0424	Total/NA	Water	353.2	
550-217859-6	CH-CCR-MW79A-0424	Total/NA	Water	353.2	
550-217859-8	CH-CCR-FD02-0424	Total/NA	Water	353.2	
550-217859-10	CH-CCR-W305-0424	Total/NA	Water	353.2	
550-217859-12	CH-CCR-W314-0424	Total/NA	Water	353.2	
550-217859-14	CH-CCR-BAP-0424	Total/NA	Water	353.2	
550-217859-16	CH-CCR-Petroglyph-0424	Total/NA	Water	353.2	
MB 280-653503/20	Method Blank	Total/NA	Water	353.2	
LCS 280-653503/18	Lab Control Sample	Total/NA	Water	353.2	
280-190890-A-5 MS	Matrix Spike	Total/NA	Water	353.2	
280-190890-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Analysis Batch: 653767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-18	CH-CCR-TannerWash-0424	Total/NA	Water	353.2	
550-217859-20	CH-CCR-TWX4-0424	Total/NA	Water	353.2	
MB 280-653767/20	Method Blank	Total/NA	Water	353.2	
MB 280-653767/57	Method Blank	Total/NA	Water	353.2	
LCS 280-653767/18	Lab Control Sample	Total/NA	Water	353.2	
LCS 280-653767/55	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-653767/19	Lab Control Sample Dup	Total/NA	Water	353.2	
LCSD 280-653767/56	Lab Control Sample Dup	Total/NA	Water	353.2	
280-190701-A-16 MS	Matrix Spike	Total/NA	Water	353.2	
280-190701-A-16 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
280-190959-B-1 MS	Matrix Spike	Total/NA	Water	353.2	
280-190959-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Analysis Batch: 654121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217859-22	CH-CCR-TWX5-0424	Total/NA	Water	353.2	
550-217859-24	CH-CCR-TWX6-0424	Total/NA	Water	353.2	
550-217859-26	CH-CCR-TWX7-0424	Total/NA	Water	353.2	
550-217859-28	CH-CCR-TWX8-0424	Total/NA	Water	353.2	
550-217859-30	CH-CCR-TWX9-0424	Total/NA	Water	353.2	
550-217859-32	CH-CCR-TWX10-0424	Total/NA	Water	353.2	
MB 280-654121/20	Method Blank	Total/NA	Water	353.2	
LCS 280-654121/18	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-654121/19	Lab Control Sample Dup	Total/NA	Water	353.2	
550-217859-22 MS	CH-CCR-TWX5-0424	Total/NA	Water	353.2	
550-217859-22 MSD	CH-CCR-TWX5-0424	Total/NA	Water	353.2	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Client Sample ID: CH-CCR-MW71A-0424

Lab Sample ID: 550-217859-1

Date Collected: 05/01/24 18:02
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 19:47
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 12:50
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 19:08

Client Sample ID: CH-CCR-MW71A-0424

Lab Sample ID: 550-217859-2

Date Collected: 05/01/24 18:02
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 13:50
Total/NA	Analysis	300.0		100	320753	RDC	EET PHX	05/12/24 14:08
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 19:05
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 19:43
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		100	320923	GLW	EET PHX	05/14/24 20:32
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 12:47
Total/NA	Prep	245.1			320665	HHL	EET PHX	05/10/24 12:08
Total/NA	Analysis	245.1		1	320693	HHL	EET PHX	05/10/24 15:25
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:27
Total/NA	Analysis	353.2		1	653503	BCR	EET DEN	05/14/24 14:59
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 12:44
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:11

Client Sample ID: CH-CCR-MW72M-0424

Lab Sample ID: 550-217859-3

Date Collected: 05/01/24 19:11
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 19:40
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 12:52
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 19:23

Client Sample ID: CH-CCR-MW72M-0424

Lab Sample ID: 550-217859-4

Date Collected: 05/01/24 19:11

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		500	320803	RDC	EET PHX	05/13/24 17:27
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 15:04
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/12/24 15:22
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653128	ADL	EET DEN	05/10/24 21:08
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 19:36
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		100	320923	GLW	EET PHX	05/14/24 20:29
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 12:54
Total/NA	Prep	245.1			320665	HHL	EET PHX	05/10/24 12:08
Total/NA	Analysis	245.1		1	320693	HHL	EET PHX	05/10/24 15:27
Total/NA	Analysis	350.1		1	320941	CXK	EET PHX	05/14/24 21:26
Total/NA	Analysis	353.2		1	653503	BCR	EET DEN	05/14/24 15:01
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 12:50
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:13

Client Sample ID: CH-CCR-MW79A-0424

Lab Sample ID: 550-217859-5

Date Collected: 04/30/24 19:04

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 19:50
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 12:56
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 19:37

Client Sample ID: CH-CCR-MW79A-0424

Lab Sample ID: 550-217859-6

Date Collected: 04/30/24 19:04

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 15:41
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/12/24 15:59
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 22:36
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 19:53
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		100	320923	GLW	EET PHX	05/14/24 20:36

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Client Sample ID: CH-CCR-MW79A-0424

Lab Sample ID: 550-217859-6

Date Collected: 04/30/24 19:04
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 12:58
Total/NA	Prep	245.1			320665	HHL	EET PHX	05/10/24 12:08
Total/NA	Analysis	245.1		1	320693	HHL	EET PHX	05/10/24 15:29
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:29
Total/NA	Analysis	353.2		1	653503	BCR	EET DEN	05/14/24 15:03
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 12:55
Total/NA	Analysis	SM 2540C		1	320387	RGR	EET PHX	05/06/24 11:18 - 05/08/24 15:22 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:15

Client Sample ID: CH-CCR-FD02-0424

Lab Sample ID: 550-217859-7

Date Collected: 04/30/24 12:34
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 19:57
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:00
Dissolved	Analysis	SM 5310B		1	320448	AKS	EET PHX	05/06/24 19:49

Client Sample ID: CH-CCR-FD02-0424

Lab Sample ID: 550-217859-8

Date Collected: 04/30/24 12:34
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 16:17
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/12/24 17:31
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 22:40
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 20:00
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		100	320923	GLW	EET PHX	05/14/24 20:39
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:02
Total/NA	Prep	245.1			320665	HHL	EET PHX	05/10/24 12:08
Total/NA	Analysis	245.1		1	320693	HHL	EET PHX	05/10/24 15:31
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:30
Total/NA	Analysis	353.2		1	653503	BCR	EET DEN	05/14/24 15:05
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 10:40
Total/NA	Analysis	SM 2540C		1	320387	RGR	EET PHX	05/06/24 11:18 - 05/08/24 15:22 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:17

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Client Sample ID: CH-CCR-W305-0424

Lab Sample ID: 550-217859-9
Date Collected: 05/02/24 10:28
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 20:04
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:04
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 17:34

Client Sample ID: CH-CCR-W305-0424

Lab Sample ID: 550-217859-10
Date Collected: 05/02/24 10:28
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 17:49
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/12/24 18:08
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 22:44
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 20:07
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		100	320923	GLW	EET PHX	05/14/24 20:43
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:06
Total/NA	Prep	245.1			320665	HHL	EET PHX	05/10/24 12:08
Total/NA	Analysis	245.1		1	320693	HHL	EET PHX	05/10/24 15:33
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:32
Total/NA	Analysis	353.2		1	653503	BCR	EET DEN	05/14/24 15:07
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 10:53
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:19

Client Sample ID: CH-CCR-W314-0424

Lab Sample ID: 550-217859-11
Date Collected: 04/29/24 14:51
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 20:17
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:15
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 17:49

Client Sample ID: CH-CCR-W314-0424

Lab Sample ID: 550-217859-12

Date Collected: 04/29/24 14:51

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 18:26
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/12/24 18:45
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 22:49
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 20:21
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:17
Total/NA	Prep	245.1			320665	HHL	EET PHX	05/10/24 12:08
Total/NA	Analysis	245.1		1	320693	HHL	EET PHX	05/10/24 15:35
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:33
Total/NA	Analysis	353.2		1	653503	BCR	EET DEN	05/14/24 15:09
Total/NA	Analysis	SM 2540C		1	320387	RGR	EET PHX	05/06/24 11:18 - 05/08/24 15:22 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:21

Client Sample ID: CH-CCR-BAP-0424

Lab Sample ID: 550-217859-13

Date Collected: 05/01/24 11:55

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 20:24
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:19
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 18:01

Client Sample ID: CH-CCR-BAP-0424

Lab Sample ID: 550-217859-14

Date Collected: 05/01/24 11:55

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 19:03
Total/NA	Analysis	300.0		100	320753	RDC	EET PHX	05/12/24 19:21
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 22:53
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 20:27
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		100	320923	GLW	EET PHX	05/14/24 20:46
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:21
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:35
Total/NA	Analysis	353.2		1	653503	BCR	EET DEN	05/14/24 15:11
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 10:59

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Client Sample ID: CH-CCR-BAP-0424

Lab Sample ID: 550-217859-14
Matrix: Water
Date Collected: 05/01/24 11:55
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:30
Total/NA	Analysis	SM 5310B		1	320516	AKS	EET PHX	05/07/24 17:30

Client Sample ID: CH-CCR-Petroglyph-0424

Lab Sample ID: 550-217859-15
Matrix: Water
Date Collected: 05/01/24 10:17
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 20:31
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:23
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 18:13

Client Sample ID: CH-CCR-Petroglyph-0424

Lab Sample ID: 550-217859-16
Matrix: Water
Date Collected: 05/01/24 10:17
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 19:40
Total/NA	Analysis	300.0		100	320753	RDC	EET PHX	05/12/24 19:58
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 23:10
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 20:34
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		100	320923	GLW	EET PHX	05/14/24 20:49
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:25
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:36
Total/NA	Analysis	353.2		1	653503	BCR	EET DEN	05/14/24 15:13
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 11:05
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:32
Total/NA	Analysis	SM 5310B		1	320516	AKS	EET PHX	05/07/24 17:42

Client Sample ID: CH-CCR-TannerWash-0424

Lab Sample ID: 550-217859-17
Matrix: Water
Date Collected: 05/01/24 09:52
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 20:37

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Client Sample ID: CH-CCR-TannerWash-0424
Lab Sample ID: 550-217859-17
Date Collected: 05/01/24 09:52
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:27
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 18:25

Client Sample ID: CH-CCR-TannerWash-0424
Lab Sample ID: 550-217859-18
Date Collected: 05/01/24 09:52
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 21:12
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/12/24 21:30
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 23:14
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 20:41
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		100	320923	GLW	EET PHX	05/14/24 20:53
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:29
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:47
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 19:19
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 11:11
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:34
Total/NA	Analysis	SM 5310B		1	320516	AKS	EET PHX	05/07/24 17:57

Client Sample ID: CH-CCR-TWX4-0424
Lab Sample ID: 550-217859-19
Date Collected: 05/01/24 16:49
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Dissolved	Analysis	200.7		1	320868	GLW	EET PHX	05/13/24 20:44
Dissolved	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Dissolved	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:31
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 18:37

Client Sample ID: CH-CCR-TWX4-0424
Lab Sample ID: 550-217859-20
Date Collected: 05/01/24 16:49
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 21:49
Total/NA	Analysis	300.0		100	320753	RDC	EET PHX	05/12/24 22:07

Client Sample ID: CH-CCR-TWX4-0424

Lab Sample ID: 550-217859-20

Date Collected: 05/01/24 16:49

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 23:18
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		1	320868	GLW	EET PHX	05/13/24 20:48
Total/NA	Prep	200.7			320443	SGO	EET PHX	05/07/24 10:30
Total/NA	Analysis	200.7 Rev 4.4		100	320923	GLW	EET PHX	05/14/24 20:56
Total/NA	Prep	200.8			320441	SGO	EET PHX	05/07/24 09:47
Total/NA	Analysis	200.8 LL		20	320975	DSJ	EET PHX	05/15/24 13:33
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:51
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 20:31
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 11:17
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:38
Total/NA	Analysis	SM 5310B		1	320516	AKS	EET PHX	05/07/24 18:10

Client Sample ID: CH-CCR-TWX5-0424

Lab Sample ID: 550-217859-21

Date Collected: 05/01/24 16:31

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Dissolved	Analysis	200.7		1	320867	GLW	EET PHX	05/13/24 18:08
Dissolved	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Dissolved	Analysis	200.8 LL		1	320659	DSJ	EET PHX	05/09/24 17:02
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 18:50

Client Sample ID: CH-CCR-TWX5-0424

Lab Sample ID: 550-217859-22

Date Collected: 05/01/24 16:31

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 22:25
Total/NA	Analysis	300.0		100	320753	RDC	EET PHX	05/12/24 22:44
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 23:23
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		1	320867	GLW	EET PHX	05/13/24 18:05
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		100	320922	GLW	EET PHX	05/14/24 19:48
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		1	320659	DSJ	EET PHX	05/09/24 17:00
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		20	320785	DSJ	EET PHX	05/10/24 16:44
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:53

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Client Sample ID: CH-CCR-TWX5-0424

Lab Sample ID: 550-217859-22

Date Collected: 05/01/24 16:31

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	353.2		1	654121	BCR	EET DEN	05/20/24 15:43
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 11:23
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:42
Total/NA	Analysis	SM 5310B		2	320516	AKS	EET PHX	05/07/24 18:22

Client Sample ID: CH-CCR-TWX6-0424

Lab Sample ID: 550-217859-23

Date Collected: 05/01/24 16:16

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Dissolved	Analysis	200.7		1	320867	GLW	EET PHX	05/13/24 18:01
Dissolved	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Dissolved	Analysis	200.8 LL		1	320659	DSJ	EET PHX	05/09/24 17:04
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 19:01

Client Sample ID: CH-CCR-TWX6-0424

Lab Sample ID: 550-217859-24

Date Collected: 05/01/24 16:16

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 23:02
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/12/24 23:21
Total Recoverable	Prep	200.7			652235	AES	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653318	NKC	EET DEN	05/13/24 23:27
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		1	320867	GLW	EET PHX	05/13/24 17:58
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		100	320922	GLW	EET PHX	05/14/24 19:45
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		1	320659	DSJ	EET PHX	05/09/24 17:06
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		20	320785	DSJ	EET PHX	05/10/24 16:46
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:54
Total/NA	Analysis	353.2		1	654121	BCR	EET DEN	05/20/24 15:49
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 11:29
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	321067	AKS	EET PHX	05/16/24 14:44
Total/NA	Analysis	SM 5310B		2	320516	AKS	EET PHX	05/07/24 18:34

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Client Sample ID: CH-CCR-TWX7-0424

Lab Sample ID: 550-217859-25

Date Collected: 05/01/24 15:56
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Dissolved	Analysis	200.7		1	320867	GLW	EET PHX	05/13/24 18:12
Dissolved	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Dissolved	Analysis	200.8 LL		1	320659	DSJ	EET PHX	05/09/24 17:08
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 19:16

Client Sample ID: CH-CCR-TWX7-0424

Lab Sample ID: 550-217859-26

Date Collected: 05/01/24 15:56
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/12/24 23:39
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/13/24 00:53
Total Recoverable	Prep	200.7			652239	KLG	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653314	NKC	EET DEN	05/13/24 19:26
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		1	320867	GLW	EET PHX	05/13/24 18:15
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		100	320922	GLW	EET PHX	05/14/24 19:52
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		1	320659	DSJ	EET PHX	05/09/24 17:10
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		20	320785	DSJ	EET PHX	05/10/24 16:48
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:56
Total/NA	Analysis	353.2		1	654121	BCR	EET DEN	05/20/24 15:51
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 11:34
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:44
Total/NA	Analysis	SM 5310B		2	320516	AKS	EET PHX	05/07/24 18:48

Client Sample ID: CH-CCR-TWX8-0424

Lab Sample ID: 550-217859-27

Date Collected: 05/01/24 11:10
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Dissolved	Analysis	200.7		1	320867	GLW	EET PHX	05/13/24 18:25
Dissolved	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Dissolved	Analysis	200.8 LL		1	320659	DSJ	EET PHX	05/09/24 17:12
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 19:56

Client Sample ID: CH-CCR-TWX8-0424

Lab Sample ID: 550-217859-28

Date Collected: 05/01/24 11:10

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/13/24 01:11
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/13/24 01:29
Total Recoverable	Prep	200.7			652239	KLG	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653314	NKC	EET DEN	05/13/24 19:31
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		1	320867	GLW	EET PHX	05/13/24 18:28
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		100	320922	GLW	EET PHX	05/14/24 19:55
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		1	320659	DSJ	EET PHX	05/09/24 17:20
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		20	320785	DSJ	EET PHX	05/10/24 16:50
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:57
Total/NA	Analysis	353.2		1	654121	BCR	EET DEN	05/20/24 15:53
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 11:55
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:46
Total/NA	Analysis	SM 5310B		2	320655	AKS	EET PHX	05/09/24 19:41

Client Sample ID: CH-CCR-TWX9-0424

Lab Sample ID: 550-217859-29

Date Collected: 05/01/24 17:07

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Dissolved	Analysis	200.7		1	320867	GLW	EET PHX	05/13/24 18:32
Dissolved	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Dissolved	Analysis	200.8 LL		20	320785	DSJ	EET PHX	05/10/24 16:52
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 20:11

Client Sample ID: CH-CCR-TWX9-0424

Lab Sample ID: 550-217859-30

Date Collected: 05/01/24 17:07

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/13/24 01:48
Total/NA	Analysis	300.0		100	320753	RDC	EET PHX	05/13/24 02:06
Total Recoverable	Prep	200.7			652239	KLG	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		1	653314	NKC	EET DEN	05/13/24 19:36
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		1	320867	GLW	EET PHX	05/13/24 18:35
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		100	320922	GLW	EET PHX	05/14/24 19:59

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Client Sample ID: CH-CCR-TWX9-0424

Lab Sample ID: 550-217859-30

Date Collected: 05/01/24 17:07
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		1	320659	DSJ	EET PHX	05/09/24 17:24
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		20	320785	DSJ	EET PHX	05/10/24 16:54
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 14:59
Total/NA	Analysis	353.2		1	654121	BCR	EET DEN	05/20/24 15:55
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 12:07
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:48
Total/NA	Analysis	SM 5310B		1	320655	AKS	EET PHX	05/09/24 19:56

Client Sample ID: CH-CCR-TWX10-0424

Lab Sample ID: 550-217859-31

Date Collected: 05/01/24 10:50
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Dissolved	Analysis	200.7		1	320867	GLW	EET PHX	05/13/24 18:39
Dissolved	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Dissolved	Analysis	200.8 LL		20	320785	DSJ	EET PHX	05/10/24 17:18
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 20:26

Client Sample ID: CH-CCR-TWX10-0424

Lab Sample ID: 550-217859-32

Date Collected: 05/01/24 10:50
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320753	RDC	EET PHX	05/13/24 02:25
Total/NA	Analysis	300.0		50	320753	RDC	EET PHX	05/13/24 02:43
Total Recoverable	Prep	200.7			652239	KLG	EET DEN	05/06/24 15:36
Total Recoverable	Analysis	200.7 Rev 4.4		10	653481	NKC	EET DEN	05/14/24 17:48
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		1	320867	GLW	EET PHX	05/13/24 18:42
Total/NA	Prep	200.7			320444	SGO	EET PHX	05/07/24 10:36
Total/NA	Analysis	200.7 Rev 4.4		100	320922	GLW	EET PHX	05/14/24 20:02
Total/NA	Prep	200.8			320442	SGO	EET PHX	05/07/24 09:54
Total/NA	Analysis	200.8 LL		20	320785	DSJ	EET PHX	05/10/24 17:20
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:00
Total/NA	Analysis	353.2		1	654121	BCR	EET DEN	05/20/24 15:57
Total/NA	Analysis	SM 2320B		1	320836	ELN	EET PHX	05/13/24 12:14
Total/NA	Analysis	SM 2540C		1	320434	RGR	EET PHX	05/07/24 08:46 - 05/08/24 15:56 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320888	CXK	EET PHX	05/14/24 15:50
Total/NA	Analysis	SM 5310B		1	320655	AKS	EET PHX	05/09/24 20:08

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-217859-1
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	Temperature
SM 5310B		Water	Dissolved Organic Carbon
SM 5310B		Water	Dissolved Organic Carbon - Duplicate
SM 5310B		Water	Dissolved Organic Carbon - Quad

Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-24

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217859-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7	Dissolved Metals by ICP	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PHX
SM 5310B	Organic Carbon, Total (TOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217859

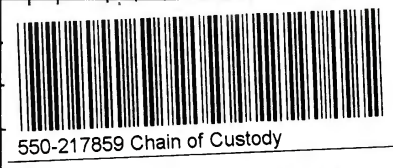
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller	Lab Contact: Linda Eshelman	COC No:
Arizona Public Service	(480) 209-6529		1 of 6 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time		Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS		For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below ____		Walk-in Client:
FAX	☑ 2 weeks		Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Cholla Power Plant (BAP)	☐ 2 days		Job / SDG No.:
PO #: 300592358	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-MW71A-0424 -01	05/01/24	1802	G	W	5	Y							X		X				X				Low Flow
CH-CCR-MW71A-0424 -02	05/01/24	1802	G	W	5	N		X			X	X		X		X	X	X		X	X	X	"
								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1	



Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; *As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.2/1.0/1.3 K

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	5/3/24 1010			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 5/3/24 10:10

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

CSO

5/29/2024 (Rev. 1)

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217859

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller	Lab Contact: Linda Eshelman		COC No:
Arizona Public Service	(480) 209-6529			2 of 6 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below ____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-MW72M-0424 -03	05/01/24	1911	G	W	5	Y							X		X				X				Low Flow
CH-CCR-MW72M-0424 -04	05/01/24	1911	G	W	5	N		X			X	X		X		X	X	X		X	X	X	"
CH-CCR-MW79A-0424 -05	04/30/24	1904	G	W	5	Y							X		X				X				"
CH-CCR-MW79A-0424 -06	04/30/24	1904	G	W	5	N		X			X	X		X		X	X	X		X	X	X	"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; *As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.2/1.0/1.3

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Hunter	WSP	5/3/24 1010			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				EETA-PHX	5/3/24 10:10

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

CRo

5/29/2024 (Rev. 1)

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217859

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller	Lab Contact: Linda Eshelman	COC No:
Arizona Public Service	(480) 209-6529		___3___ of ___6___ COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**		Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS		**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____		Walk-in Client:
FAX	☑ 2 weeks		Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Cholla Power Plant (BAP)	☐ 2 days		Job / SDG No.:
PO #: 300592358	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)		Sample Specific Notes:
CH-CCR-FD02-0424 -07	04/30/24	1234	G	W	5	Y	N						X		X				X					Low Flow
CH-CCR-FD02-0424 -08	04/30/24	1234	G	W	5	N	N	X	X			X		X		X	X	X		X	X	X		Low Flow
CH-CCR-W305-0424 -09	05/02/24	1028	G	W	5	Y							X		X				X					"
CH-CCR-W305-0424 -10	05/02/24	1028	G	W	5	N		X	X			X		X		X	X	X		X	X	X		"
								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.2/1.0/1.3

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: WSP	Date/Time: 5/3/24 1010	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: FEDEX-PHX	Date/Time: 5/3/24 10:10

CDD

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217859

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller	Lab Contact: Linda Eshelman	COC No:
Arizona Public Service	(480) 209-6529		4 of 6 COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**		Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS		**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____		Walk-in Client:
FAX	☑ 2 weeks		Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Cholla Power Plant (BAP)	☐ 2 days		Job / SDG No.:
PO #: 300592358	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-H+B (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 Alk. as CaCO3)		Sample Specific Notes:
CH-CCR-W314-0424 -11	04/29/24	1451	G	W	5	Y							X		X				X					Low Flow
CH-CCR-W314-0424 -12	04/29/24	1451	G	W	5	N		X		X		X		X		X	X	X		X	X			"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1		

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.2/1.0/13

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	5/3/24 1010			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: EETA-PHX	Date/Time: 5/3/24 10:10

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

400

5/29/2024 (Rev. 1)

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

217859

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller	Lab Contact: Linda Eshelman	COC No:
Arizona Public Service	(480) 209-6529		5 of 6 COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**		Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS		**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below		Walk-in Client:
FAX	☐ 2 weeks		Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Cholla Power Plant (BAP)	☐ 2 days		Job / SDG No.:
PO #: 300592358	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Li, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5410B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)			Sample Specific Notes:
CH-CCR-BAP-0424 -13	05/01/24	1155	G	W	5	Y					X		X				X							Surface Water Sample
CH-CCR-BAP-0424 -14	05/01/24	1155	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X			Surface Water Sample
CH-CCR-Petroglyph-0424 -15	05/01/24	1017	G	W	5	Y					X		X				X							Seepage Pump Port Sample
CH-CCR-Petroglyph-0424 -16	05/01/24	1017	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X			Seepage Pump Port Sample
CH-CCR-TannerWash-0424 -17	05/01/24	952	G	W	5	Y					X		X				X							"
CH-CCR-TannerWash-0424 -18	05/01/24	952	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X			"
CH-CCR-TWX4-0424 -19	05/01/24	1649	G	W	5	Y					X		X				X							"
CH-CCR-TWX4-0424 -20	05/01/24	1649	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X			"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								1	4	4	4	4	4	1	1	2	2	3	3	1	1			

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.2/1.8/1.3

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	WSP	5/3/24 1010			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	EETA-PHX	5/3/24 10:10

CDO

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217859

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller	Lab Contact: Linda Eshelman	COC No:
Arizona Public Service	(480) 209-6529		___6___ of ___6___ COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**		Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS		**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____		Walk-in Client:
FAX	☐ 2 weeks		Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Cholla Power Plant (BAP)	☐ 2 days		Job / SDG No.:
PO #: 300592358	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Li, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5410B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)		Sample Specific Notes:
CH-CCR-TWX5-0424 -21	05/01/24	1631	G	W	5	Y					X		X				X						"
CH-CCR-TWX5-0424 -22	05/01/24	1631	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X		"
CH-CCR-TWX6-0424 -23	05/01/24	1616	G	W	5	Y					X		X				X						"
CH-CCR-TWX6-0424 -24	05/01/24	1616	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X		"
CH-CCR-TWX7-0424 -25	05/01/24	1556	G	W	5	Y					X		X				X						"
CH-CCR-TWX7-0424 -26	05/01/24	1556	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X		"
CH-CCR-TWX8-0424 -27	05/01/24	1110	G	W	5	Y					X		X				X						"
CH-CCR-TWX8-0424 -28	05/01/24	1110	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X		"
CH-CCR-TWX9-0424 -29	05/01/24	1707	G	W	5	Y					X		X				X						"
CH-CCR-TWX9-0424 -30	05/01/24	1707	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X		"
CH-CCR-TWX10-0424 -31	05/01/24	1050	G	W	5	Y					X		X				X						"
CH-CCR-TWX10-0424 -32	05/01/24	1050	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X		"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	1	1	2	2	3	3	1	1		

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.0/1.3/1.2°c

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: WSP	Date/Time: 5/3/24 1010	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 5/3/24 10:10

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

5/29/2024 (Rev. 1)

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM.: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39473.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217859-1
Address: 4955 Yarrow Street,	Due Date Requested: 5/16/2024			Preservation Codes: -
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-CCR-MW71A-0424 (550-217859-2)	5/1/24	18:02 Arizona		Water			X	X	2	
CH-CCR-MW72M-0424 (550-217859-4)	5/1/24	19:11 Arizona		Water			X	X	2	
CH-CCR-MW79A-0424 (550-217859-6)	4/30/24	19:04 Arizona		Water			X	X	2	
CH-CCR-FD02-0424 (550-217859-8)	4/30/24	12:34 Arizona		Water			X	X	2	
CH-CCR-W305-0424 (550-217859-10)	5/2/24	10:28 Arizona		Water			X	X	2	
CH-CCR-W314-0424 (550-217859-12)	4/29/24	14:51 Arizona		Water			X	X	2	
CH-CCR-BAP-0424 (550-217859-14)	5/1/24	11:55 Arizona		Water			X	X	2	
CH-CCR-Petroglyph-0424 (550-217859-16)	5/1/24	10:17 Arizona		Water			X	X	2	
CH-CCR-TannerWash-0424 (550-217859-18)	5/1/24	09:52 Arizona		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: [signature] 05-03-24	Date/Time: 13:45	Company: EETSW	Received by: Fedex	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 5/4/24 0940	Company: FEDEX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: KS K.Naga CF+0.2

Ver: 06/08/2021

5/29/2024 (Rev. 1)

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39473.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217859-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 5/16/2024			Preservation Codes: -
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-CCR-TWX4-0424 (550-217859-20)	5/1/24	16:49 Arizona		Water			X	X	2	
CH-CCR-TWX5-0424 (550-217859-22)	5/1/24	16:31 Arizona		Water			X	X	2	
CH-CCR-TWX6-0424 (550-217859-24)	5/1/24	16:16 Arizona		Water			X	X	2	
CH-CCR-TWX7-0424 (550-217859-26)	5/1/24	15:56 Arizona		Water			X	X	2	
CH-CCR-TWX8-0424 (550-217859-28)	5/1/24	11:10 Arizona		Water			X	X	2	
CH-CCR-TWX9-0424 (550-217859-30)	5/1/24	17:07 Arizona		Water			X	X	2	
CH-CCR-TWX10-0424 (550-217859-32)	5/1/24	10:50 Arizona		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Emma	05-03-24 13:45	EETSW	FedEx		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				5/4/24 0940	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.8 IR Gun CF+C

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217859-1

Login Number: 217859
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217859-1

Login Number: 217859
List Number: 2
Creator: Rystrom, Joshua R

List Source: Eurofins Denver
List Creation: 05/04/24 01:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

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JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-218992-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

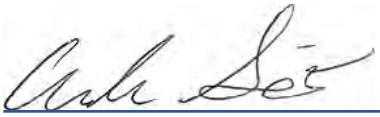
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Revision 1

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218992-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.

Metals

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

General Chemistry

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
B7	Target analyte detected in method blank at or above method reporting limit. Concentration found in the sample was 10 times above the concentration found in the blank.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
550-218992-1

REVISION

The report being provided is a revision of the original report sent on 6/12/2024. The report (revision 1) is being revised due to Client would like 200.8 reported to the MDL.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/29/2024 1:58 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.1°C.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 200.7_CWA: The continuing calibration blank (CCB) for analytical batch 550-321969 contained Sodium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed. CH-CCR-BAPTD-0424 (550-218992-1) and CH-CCR-TWX3-0424 (550-218992-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2540C_Calcd: The method blank for analytical batch 550-321689 contained Total Dissolved Soldis (TDS) above the reporting limit (RL). Associated sample(s) were not re-analyzed because results were greater than 10X the value found in the method blank.

Method SM5310B: The following blanks had an RPD > 10% between consecutive replicates. Results are less than half of the reporting limit, data was reported. (CCB 550-322139/20), (CCB 550-322139/4) and (MB 550-322139/5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218992-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-218992-1	CH-CCR-BAPTD-0424	Water	05/28/24 16:08	05/29/24 13:58
550-218992-2	CH-CCR-TWX3-0424	Water	05/28/24 15:56	05/29/24 13:58

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218992-1

Client Sample ID: CH-CCR-BAPTD-0424 — Lab Sample ID: 550-218992-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.9		0.40		mg/L	1		300.0	Total/NA
Sulfate	2700	D2	200		mg/L	100		300.0	Total/NA
Boron	4.3		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	720		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.86		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	260		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	22	B1	10		mg/L	20		200.7 Rev 4.4	Total/NA
Sodium	1700	B1	10		mg/L	20		200.7 Rev 4.4	Total/NA
Lithium	230		20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Antimony	0.00055	E4	0.010	0.00043	mg/L	10		200.8 LL	Total/NA
Arsenic	0.0059		0.0050	0.0025	mg/L	10		200.8 LL	Total/NA
Barium	0.011		0.0050	0.0026	mg/L	10		200.8 LL	Total/NA
Cadmium	0.00089	E4	0.0010	0.00023	mg/L	10		200.8 LL	Total/NA
Cobalt	0.0091		0.0050	0.00063	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.038		0.0050	0.0020	mg/L	10		200.8 LL	Total/NA
Ammonia	0.091		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	130		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7700	B7	100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	18.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	5.3		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	5.3		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	5.3		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-TWX3-0424 — Lab Sample ID: 550-218992-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2000	D2	100		mg/L	50		300.0	Total/NA
Fluoride	2.7		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	100		mg/L	50		300.0	Total/NA
Boron	4.1		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	710		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	2.7		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	260		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.7		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	23	B1	10		mg/L	20		200.7 Rev 4.4	Total/NA
Sodium	1500	B1	10		mg/L	20		200.7 Rev 4.4	Total/NA
Lithium	200		20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Antimony	0.00079	E4	0.010	0.00043	mg/L	10		200.8 LL	Total/NA
Arsenic	0.0063		0.0050	0.0025	mg/L	10		200.8 LL	Total/NA
Barium	0.063		0.0050	0.0026	mg/L	10		200.8 LL	Total/NA
Cadmium	0.00049	E4	0.0010	0.00023	mg/L	10		200.8 LL	Total/NA
Chromium	0.0090	E4	0.010	0.0043	mg/L	10		200.8 LL	Total/NA
Cobalt	0.011		0.0050	0.00063	mg/L	10		200.8 LL	Total/NA
Lead	0.0092		0.0050	0.0022	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.034		0.0050	0.0020	mg/L	10		200.8 LL	Total/NA
Ammonia	0.16		0.050		mg/L	1		350.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-TWX3-0424 (Continued)

Lab Sample ID: 550-218992-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Alkalinity as CaCO3	76		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	76		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7700	B7	100		mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	19.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	5.0		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	5.0		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	5.0		0.50		mg/L	1		SM 5310B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-BAPTD-0424

Date Collected: 05/28/24 16:08
Date Received: 05/29/24 13:58

Lab Sample ID: 550-218992-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2000**	**D2**	200		mg/L			05/31/24 00:21	100
Fluoride	**1.9**		0.40		mg/L			05/31/24 00:02	1
Sulfate	**2700**	**D2**	200		mg/L			05/31/24 00:21	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.3**		0.050		mg/L		05/30/24 07:57	06/03/24 22:02	1
Calcium	**720**		2.0		mg/L		05/30/24 07:57	06/03/24 22:02	1
Iron	**0.86**		0.10		mg/L		05/30/24 07:57	06/03/24 22:02	1
Magnesium	**260**		2.0		mg/L		05/30/24 07:57	06/03/24 22:02	1
Manganese	**2.1**		0.010		mg/L		05/30/24 07:57	06/03/24 22:02	1
Potassium	**22**	**B1**	10		mg/L		05/30/24 07:57	06/04/24 23:00	20
Sodium	**1700**	**B1**	10		mg/L		05/30/24 07:57	06/04/24 23:00	20
Beryllium	ND		0.0010		mg/L		05/30/24 07:57	06/03/24 22:02	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**230**		20		ug/L		05/31/24 15:08	06/05/24 16:46	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00055**	**E4**	0.010	0.00043	mg/L		05/30/24 05:19	05/31/24 14:21	10
Arsenic	**0.0059**		0.0050	0.0025	mg/L		05/30/24 05:19	05/31/24 14:21	10
Barium	**0.011**		0.0050	0.0026	mg/L		05/30/24 05:19	05/31/24 14:21	10
Cadmium	**0.00089**	**E4**	0.0010	0.00023	mg/L		05/30/24 05:19	05/31/24 14:21	10
Chromium	ND	E8	0.010	0.0043	mg/L		05/30/24 05:19	05/31/24 14:21	10
Cobalt	**0.0091**		0.0050	0.00063	mg/L		05/30/24 05:19	05/31/24 14:21	10
Lead	ND	E8	0.0050	0.0022	mg/L		05/30/24 05:19	05/31/24 14:21	10
Molybdenum	**0.038**		0.0050	0.0020	mg/L		05/30/24 05:19	05/31/24 14:21	10
Selenium	ND	E8	0.0050	0.00074	mg/L		05/30/24 05:19	05/31/24 14:21	10
Thallium	ND	E8	0.0010	0.00013	mg/L		05/30/24 05:19	05/31/24 14:21	10

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.091**		0.050		mg/L			06/11/24 13:49	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			06/04/24 16:25	1
Alkalinity as CaCO3 (SM 2320B)	**130**		6.0		mg/L			05/31/24 12:40	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/31/24 12:40	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**130**		6.0		mg/L			05/31/24 12:40	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/31/24 12:40	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/31/24 12:40	1
Total Dissolved Solids (SM 2540C)	**7700**	**B7**	100		mg/L			05/30/24 10:18	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			06/06/24 18:04	1
Temperature (SM 4500 H+ B)	**18.5**	**H5 T5**	0.1		Degrees C			06/06/24 18:04	1
Total Organic Carbon (SM 5310B)	**5.3**		0.50		mg/L			06/06/24 21:48	1
Total Organic Carbon - Duplicates (SM 5310B)	**5.3**		0.50		mg/L			06/06/24 21:48	1
Total Organic Carbon - Quad (SM 5310B)	**5.3**		0.50		mg/L			06/06/24 21:48	1

Client Sample ID: CH-CCR-TWX3-0424

Date Collected: 05/28/24 15:56
Date Received: 05/29/24 13:58

Lab Sample ID: 550-218992-2

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2000	D2	100		mg/L			05/31/24 01:34	50
Fluoride	2.7		0.40		mg/L			05/31/24 01:16	1
Sulfate	2800	D2	100		mg/L			05/31/24 01:34	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.1		0.050		mg/L		05/30/24 07:57	06/03/24 22:06	1
Calcium	710		2.0		mg/L		05/30/24 07:57	06/03/24 22:06	1
Iron	2.7		0.10		mg/L		05/30/24 07:57	06/03/24 22:06	1
Magnesium	260		2.0		mg/L		05/30/24 07:57	06/03/24 22:06	1
Manganese	4.7		0.010		mg/L		05/30/24 07:57	06/03/24 22:06	1
Potassium	23	B1	10		mg/L		05/30/24 07:57	06/04/24 23:04	20
Sodium	1500	B1	10		mg/L		05/30/24 07:57	06/04/24 23:04	20
Beryllium	ND		0.0010		mg/L		05/30/24 07:57	06/03/24 22:06	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	200		20		ug/L		05/31/24 15:08	06/05/24 16:50	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00079	E4	0.010	0.00043	mg/L		05/30/24 05:19	05/31/24 14:23	10
Arsenic	0.0063		0.0050	0.0025	mg/L		05/30/24 05:19	05/31/24 14:23	10
Barium	0.063		0.0050	0.0026	mg/L		05/30/24 05:19	05/31/24 14:23	10
Cadmium	0.00049	E4	0.0010	0.00023	mg/L		05/30/24 05:19	05/31/24 14:23	10
Chromium	0.0090	E4	0.010	0.0043	mg/L		05/30/24 05:19	05/31/24 14:23	10
Cobalt	0.011		0.0050	0.00063	mg/L		05/30/24 05:19	05/31/24 14:23	10
Lead	0.0092		0.0050	0.0022	mg/L		05/30/24 05:19	05/31/24 14:23	10
Molybdenum	0.034		0.0050	0.0020	mg/L		05/30/24 05:19	05/31/24 14:23	10
Selenium	ND	E8	0.0050	0.00074	mg/L		05/30/24 05:19	05/31/24 14:23	10
Thallium	ND	E8	0.0010	0.00013	mg/L		05/30/24 05:19	05/31/24 14:23	10

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.16		0.050		mg/L			06/11/24 13:50	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			06/04/24 16:27	1
Alkalinity as CaCO3 (SM 2320B)	76		6.0		mg/L			05/31/24 12:53	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/31/24 12:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	76		6.0		mg/L			05/31/24 12:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/31/24 12:53	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/31/24 12:53	1
Total Dissolved Solids (SM 2540C)	7700	B7	100		mg/L			05/30/24 10:18	1
pH (SM 4500 H+ B)	7.1	H5	1.7		SU			06/06/24 18:07	1
Temperature (SM 4500 H+ B)	19.5	H5 T5	0.1		Degrees C			06/06/24 18:07	1
Total Organic Carbon (SM 5310B)	5.0		0.50		mg/L			06/06/24 22:00	1
Total Organic Carbon - Duplicates (SM 5310B)	5.0		0.50		mg/L			06/06/24 22:00	1
Total Organic Carbon - Quad (SM 5310B)	5.0		0.50		mg/L			06/06/24 22:00	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-321712/38
Matrix: Water
Analysis Batch: 321712

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/30/24 23:07	1
Fluoride	ND		0.40		mg/L			05/30/24 23:07	1
Sulfate	ND		2.0		mg/L			05/30/24 23:07	1

Lab Sample ID: LCS 550-321712/39
Matrix: Water
Analysis Batch: 321712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	18.8		mg/L		94	90 - 110		
Fluoride			4.00	4.10		mg/L		102	90 - 110		
Sulfate			20.0	18.7		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-321712/40
Matrix: Water
Analysis Batch: 321712

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	18.9		mg/L		94	90 - 110	0	20
Fluoride			4.00	4.10		mg/L		103	90 - 110	0	20
Sulfate			20.0	18.8		mg/L		94	90 - 110	0	20

Lab Sample ID: 550-218992-1 MS
Matrix: Water
Analysis Batch: 321712

Client Sample ID: CH-CCR-BAPTD-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2000	D2	2000	3990	D2	mg/L		97	80 - 120		
Fluoride	ND	D1 D5	400	405	D2	mg/L		101	80 - 120		
Sulfate	2700	D2	2000	4580	D2	mg/L		93	80 - 120		

Lab Sample ID: 550-218992-1 MSD
Matrix: Water
Analysis Batch: 321712

Client Sample ID: CH-CCR-BAPTD-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2000	D2	2000	4000	D2	mg/L		98	80 - 120	0	20
Fluoride	ND	D1 D5	400	406	D2	mg/L		101	80 - 120	0	20
Sulfate	2700	D2	2000	4580	D2	mg/L		93	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-321676/1-A
Matrix: Water
Analysis Batch: 321826

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321676

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/30/24 07:57	06/01/24 00:49	1
Calcium	ND		2.0		mg/L		05/30/24 07:57	06/01/24 00:49	1
Iron	ND		0.10		mg/L		05/30/24 07:57	06/01/24 00:49	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 550-321676/1-A
Matrix: Water
Analysis Batch: 321826

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321676

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	ND		2.0		mg/L		05/30/24 07:57	06/01/24 00:49	1
Manganese	ND		0.010		mg/L		05/30/24 07:57	06/01/24 00:49	1
Beryllium	ND		0.0010		mg/L		05/30/24 07:57	06/01/24 00:49	1

Lab Sample ID: MB 550-321676/1-A
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321676

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/30/24 07:57	06/03/24 20:41	1
Calcium	ND		2.0		mg/L		05/30/24 07:57	06/03/24 20:41	1
Iron	ND		0.10		mg/L		05/30/24 07:57	06/03/24 20:41	1
Magnesium	ND		2.0		mg/L		05/30/24 07:57	06/03/24 20:41	1
Manganese	ND		0.010		mg/L		05/30/24 07:57	06/03/24 20:41	1
Beryllium	ND		0.0010		mg/L		05/30/24 07:57	06/03/24 20:41	1

Lab Sample ID: MB 550-321676/1-A
Matrix: Water
Analysis Batch: 321969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321676

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/30/24 07:57	06/04/24 22:19	1
Calcium	ND		2.0		mg/L		05/30/24 07:57	06/04/24 22:19	1
Iron	ND		0.10		mg/L		05/30/24 07:57	06/04/24 22:19	1
Magnesium	ND		2.0		mg/L		05/30/24 07:57	06/04/24 22:19	1
Manganese	ND		0.010		mg/L		05/30/24 07:57	06/04/24 22:19	1
Potassium	0.657	B1	0.50		mg/L		05/30/24 07:57	06/04/24 22:19	1
Sodium	1.30	B1	0.50		mg/L		05/30/24 07:57	06/04/24 22:19	1
Beryllium	ND		0.0010		mg/L		05/30/24 07:57	06/04/24 22:19	1

Lab Sample ID: LCS 550-321676/2-A
Matrix: Water
Analysis Batch: 321826

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321676

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.09		mg/L		109	85 - 115		
Calcium			21.0	22.0		mg/L		105	85 - 115		
Iron			1.00	1.05		mg/L		105	85 - 115		
Magnesium			21.0	22.3		mg/L		106	85 - 115		
Manganese			1.00	1.03		mg/L		103	85 - 115		
Beryllium			1.00	1.06		mg/L		106	85 - 115		

Lab Sample ID: LCS 550-321676/2-A
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321676

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.12		mg/L		112	85 - 115		
Calcium			21.0	22.5		mg/L		107	85 - 115		
Iron			1.00	1.06		mg/L		106	85 - 115		

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-321676/2-A
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	21.0	22.2		mg/L		106	85 - 115
Manganese	1.00	1.02		mg/L		102	85 - 115
Beryllium	1.00	1.07		mg/L		107	85 - 115

Lab Sample ID: LCS 550-321676/2-A
Matrix: Water
Analysis Batch: 321969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	1.06		mg/L		106	85 - 115
Calcium	21.0	21.5		mg/L		103	85 - 115
Iron	1.00	1.02		mg/L		102	85 - 115
Magnesium	21.0	21.6		mg/L		103	85 - 115
Manganese	1.00	1.01		mg/L		101	85 - 115
Potassium	20.0	20.8		mg/L		104	85 - 115
Sodium	20.0	20.7		mg/L		104	85 - 115
Beryllium	1.00	1.04		mg/L		104	85 - 115

Lab Sample ID: LCSD 550-321676/3-A
Matrix: Water
Analysis Batch: 321826

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.00	1.09		mg/L		109	85 - 115	0	20
Calcium	21.0	22.1		mg/L		105	85 - 115	1	20
Iron	1.00	1.04		mg/L		104	85 - 115	1	20
Magnesium	21.0	22.5		mg/L		107	85 - 115	1	20
Manganese	1.00	1.04		mg/L		104	85 - 115	1	20
Beryllium	1.00	1.07		mg/L		107	85 - 115	1	20

Lab Sample ID: LCSD 550-321676/3-A
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.00	1.12		mg/L		112	85 - 115	1	20
Calcium	21.0	22.6		mg/L		107	85 - 115	0	20
Iron	1.00	1.05		mg/L		105	85 - 115	1	20
Magnesium	21.0	22.3		mg/L		106	85 - 115	0	20
Manganese	1.00	1.03		mg/L		103	85 - 115	1	20
Beryllium	1.00	1.07		mg/L		107	85 - 115	0	20

Lab Sample ID: LCSD 550-321676/3-A
Matrix: Water
Analysis Batch: 321969

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.00	1.06		mg/L		106	85 - 115	1	20
Calcium	21.0	21.5		mg/L		102	85 - 115	0	20
Iron	1.00	1.00		mg/L		100	85 - 115	2	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-321676/3-A
Matrix: Water
Analysis Batch: 321969

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 321676

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Magnesium			21.0	21.7		mg/L		103	85 - 115	0	20
Manganese			1.00	1.01		mg/L		101	85 - 115	1	20
Potassium			20.0	20.8		mg/L		104	85 - 115	0	20
Sodium			20.0	20.6		mg/L		103	85 - 115	1	20
Beryllium			1.00	1.04		mg/L		104	85 - 115	0	20

Lab Sample ID: 550-218937-E-1-A MS
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	4.6		1.00	5.51	M3	mg/L		89	70 - 130		
Calcium	430	M3	21.0	410	M3	mg/L		-108	70 - 130		
Iron	ND		1.00	1.22		mg/L		115	70 - 130		
Magnesium	1300	E2 M3	21.0	1230	E2 M3	mg/L		-495	70 - 130		
Manganese	ND		1.00	0.952		mg/L		95	70 - 130		
Beryllium	ND		1.00	1.20		mg/L		120	70 - 130		

Lab Sample ID: 550-218937-E-1-B MSD
Matrix: Water
Analysis Batch: 321905

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 321676

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	4.6		1.00	5.42	M3	mg/L		80	70 - 130	2	20
Calcium	430	M3	21.0	428	M3	mg/L		-22	70 - 130	4	20
Iron	ND		1.00	1.27		mg/L		120	70 - 130	4	20
Magnesium	1300	E2 M3	21.0	1270	E2 M3	mg/L		-271	70 - 130	4	20
Manganese	ND		1.00	0.944		mg/L		94	70 - 130	1	20
Beryllium	ND		1.00	1.26		mg/L		126	70 - 130	5	20

Lab Sample ID: 280-192140-B-11-E MS
Matrix: Water
Analysis Batch: 656047

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 655424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium	ND		1000	1050		ug/L		103	70 - 130		

Lab Sample ID: 280-192140-B-11-F MSD
Matrix: Water
Analysis Batch: 656047

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 655424

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	ND		1000	1040		ug/L		103	70 - 130	1	20

Lab Sample ID: MB 280-655424/1-A
Matrix: Water
Analysis Batch: 656047

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 655424

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20		ug/L		05/31/24 15:08	06/05/24 16:18	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: LCS 280-655424/2-A
Matrix: Water
Analysis Batch: 656047

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 655424

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	1000	998		ug/L		100	90 - 112

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-321669/1-A
Matrix: Water
Analysis Batch: 321791

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321669

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	E8	0.0010	0.000043	mg/L		05/30/24 05:19	05/31/24 13:57	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		05/30/24 05:19	05/31/24 13:57	1
Barium	ND	E8	0.00050	0.00026	mg/L		05/30/24 05:19	05/31/24 13:57	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		05/30/24 05:19	05/31/24 13:57	1
Chromium	ND	E8	0.0010	0.00043	mg/L		05/30/24 05:19	05/31/24 13:57	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		05/30/24 05:19	05/31/24 13:57	1
Lead	ND	E8	0.00050	0.00022	mg/L		05/30/24 05:19	05/31/24 13:57	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		05/30/24 05:19	05/31/24 13:57	1
Selenium	ND	E8	0.00050	0.000074	mg/L		05/30/24 05:19	05/31/24 13:57	1
Thallium	ND	E8	0.00010	0.000013	mg/L		05/30/24 05:19	05/31/24 13:57	1

Lab Sample ID: LCS 550-321669/2-A
Matrix: Water
Analysis Batch: 321791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321669

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.0938		mg/L		94	85 - 115
Arsenic	0.100	0.0959		mg/L		96	85 - 115
Barium	0.100	0.0957		mg/L		96	85 - 115
Cadmium	0.100	0.0954		mg/L		95	85 - 115
Chromium	0.100	0.0965		mg/L		96	85 - 115
Cobalt	0.100	0.0982		mg/L		98	85 - 115
Lead	0.100	0.101		mg/L		101	85 - 115
Molybdenum	0.100	0.0993		mg/L		99	85 - 115
Selenium	0.100	0.0945		mg/L		95	85 - 115
Thallium	0.100	0.102		mg/L		102	85 - 115

Lab Sample ID: LCSD 550-321669/3-A
Matrix: Water
Analysis Batch: 321791

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 321669

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.0961		mg/L		96	85 - 115	2	20
Arsenic	0.100	0.0957		mg/L		96	85 - 115	0	20
Barium	0.100	0.0955		mg/L		96	85 - 115	0	20
Cadmium	0.100	0.0956		mg/L		96	85 - 115	0	20
Chromium	0.100	0.0957		mg/L		96	85 - 115	1	20
Cobalt	0.100	0.0990		mg/L		99	85 - 115	1	20
Lead	0.100	0.101		mg/L		101	85 - 115	0	20
Molybdenum	0.100	0.0993		mg/L		99	85 - 115	0	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-321669/3-A
Matrix: Water
Analysis Batch: 321791

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 321669

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium			0.100	0.0948		mg/L		95	85 - 115	0	20
Thallium			0.100	0.103		mg/L		103	85 - 115	1	20

Lab Sample ID: 550-218981-C-1-A MS
Matrix: Water
Analysis Batch: 321791

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 321669

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.0010	M1	0.100	0.149	M1	mg/L		148	70 - 130
Arsenic	0.0019	M1	0.100	0.142	M1	mg/L		140	70 - 130
Barium	0.095	M1	0.100	0.244	M1	mg/L		149	70 - 130
Cadmium	ND	E8 M1	0.100	0.133	M1	mg/L		133	70 - 130
Chromium	0.00043	E4 M1	0.100	0.134	M1	mg/L		134	70 - 130
Cobalt	0.00018	E4 M1	0.100	0.135	M1	mg/L		134	70 - 130
Lead	ND	E8 M1	0.100	0.132	M1	mg/L		132	70 - 130
Molybdenum	0.0048	M1	0.100	0.155	M1	mg/L		150	70 - 130
Selenium	0.00073	M1	0.100	0.137	M1	mg/L		136	70 - 130
Thallium	0.000075	E4 M1	0.100	0.133	M1	mg/L		133	70 - 130

Lab Sample ID: 550-218981-C-1-B MSD
Matrix: Water
Analysis Batch: 321791

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 321669

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.0010	M1	0.100	0.142	M1	mg/L		141	70 - 130	4	20
Arsenic	0.0019	M1	0.100	0.138	M1	mg/L		136	70 - 130	3	20
Barium	0.095	M1	0.100	0.231	M1	mg/L		136	70 - 130	5	20
Cadmium	ND	E8 M1	0.100	0.127		mg/L		127	70 - 130	5	20
Chromium	0.00043	E4 M1	0.100	0.133	M1	mg/L		132	70 - 130	1	20
Cobalt	0.00018	E4 M1	0.100	0.132	M1	mg/L		132	70 - 130	2	20
Lead	ND	E8 M1	0.100	0.127		mg/L		127	70 - 130	4	20
Molybdenum	0.0048	M1	0.100	0.149	M1	mg/L		144	70 - 130	4	20
Selenium	0.00073	M1	0.100	0.134	M1	mg/L		134	70 - 130	2	20
Thallium	0.000075	E4 M1	0.100	0.131	M1	mg/L		131	70 - 130	2	20

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-322320/29
Matrix: Water
Analysis Batch: 322320

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			06/11/24 13:24	1

Lab Sample ID: LCS 550-322320/30
Matrix: Water
Analysis Batch: 322320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia			1.00	0.906		mg/L		91	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: LCSD 550-322320/31
Matrix: Water
Analysis Batch: 322320

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.931		mg/L		93	90 - 110	3	20

Lab Sample ID: 550-218966-T-1 MS
Matrix: Water
Analysis Batch: 322320

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	ND	M2	1.00	0.922	M2	mg/L		88	90 - 110

Lab Sample ID: 550-218966-T-1 MSD
Matrix: Water
Analysis Batch: 322320

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	ND	M2	1.00	1.01		mg/L		97	90 - 110	9	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-655922/94
Matrix: Water
Analysis Batch: 655922

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			06/04/24 15:41	1

Lab Sample ID: LCS 280-655922/92
Matrix: Water
Analysis Batch: 655922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N			1.00	0.945		mg/L		94	90 - 110

Lab Sample ID: LCSD 280-655922/93
Matrix: Water
Analysis Batch: 655922

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			1.00	0.927		mg/L		93	90 - 110	2	10

Lab Sample ID: 280-192011-D-1 MS
Matrix: Water
Analysis Batch: 655922

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	ND	M2	2.00	1.43	M2	mg/L		71	90 - 110

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 280-192011-D-1 MSD
Matrix: Water
Analysis Batch: 655922

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND	M2	2.00	1.43	M2	mg/L		71	90 - 110	0	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-321889/4
Matrix: Water
Analysis Batch: 321889

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			05/31/24 11:02	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			05/31/24 11:02	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/31/24 11:02	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/31/24 11:02	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			05/31/24 11:02	1

Lab Sample ID: LCS 550-321889/3
Matrix: Water
Analysis Batch: 321889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	235		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-321889/16
Matrix: Water
Analysis Batch: 321889

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	237		mg/L		95	90 - 110	1	20

Lab Sample ID: 550-218992-1 DU
Matrix: Water
Analysis Batch: 321889

Client Sample ID: CH-CCR-BAPTD-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	130			128		mg/L				0.3	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	130			128		mg/L				0.3	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-321689/1
Matrix: Water
Analysis Batch: 321689

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	24.0	B1	20		mg/L			05/30/24 10:18	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 550-321689/2
Matrix: Water
Analysis Batch: 321689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	1010		mg/L		101	90 - 110		

Lab Sample ID: LCSD 550-321689/3
Matrix: Water
Analysis Batch: 321689

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1000		mg/L		100	90 - 110	1	10

Lab Sample ID: 550-218976-S-1 DU
Matrix: Water
Analysis Batch: 321689

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1200	B7		1220		mg/L				0.3	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-322064/1
Matrix: Water
Analysis Batch: 322064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.7	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-322064/13
Matrix: Water
Analysis Batch: 322064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	6.9		SU		98.9	98.5 - 101.5		

Lab Sample ID: 550-219015-B-1 DU
Matrix: Water
Analysis Batch: 322064

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.1			7.1		SU				0.2	5
Temperature	17.7			17.9		Degrees C				1	

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 550-322139/5
Matrix: Water
Analysis Batch: 322139

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.50		mg/L			06/06/24 20:14	1
Total Organic Carbon - Duplicates	ND		0.50		mg/L			06/06/24 20:14	1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MB 550-322139/5
Matrix: Water
Analysis Batch: 322139

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	ND		0.50		mg/L			06/06/24 20:14	1

Lab Sample ID: LCS 550-322139/6
Matrix: Water
Analysis Batch: 322139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			20.0	19.1		mg/L		95	90 - 110		
Total Organic Carbon - Duplicates			20.0	19.1		mg/L		95	90 - 110		
Total Organic Carbon - Quad			20.0	19.1		mg/L		95	90 - 110		

Lab Sample ID: LCSD 550-322139/7
Matrix: Water
Analysis Batch: 322139

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			20.0	18.9		mg/L		95	90 - 110	1	20
Total Organic Carbon - Duplicates			20.0	18.9		mg/L		95	90 - 110	1	20
Total Organic Carbon - Quad			20.0	18.9		mg/L		95	90 - 110	1	20

Lab Sample ID: 550-219071-C-13 MS
Matrix: Water
Analysis Batch: 322139

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	3.8	M2	20.0	21.3	M2	mg/L		87	90 - 110		
Total Organic Carbon - Duplicates	3.8	M2	20.0	21.3	M2	mg/L		87	90 - 110		
Total Organic Carbon - Quad	3.8	M2	20.0	21.3	M2	mg/L		87	90 - 110		

Lab Sample ID: 550-219071-C-13 MSD
Matrix: Water
Analysis Batch: 322139

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	3.8	M2	20.0	21.3	M2	mg/L		87	90 - 110	0	20
Total Organic Carbon - Duplicates	3.8	M2	20.0	21.3	M2	mg/L		87	90 - 110	0	20
Total Organic Carbon - Quad	3.8	M2	20.0	21.3	M2	mg/L		87	90 - 110	0	20

HPLC/IC

Analysis Batch: 321712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	300.0	
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	300.0	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	300.0	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	300.0	
MB 550-321712/38	Method Blank	Total/NA	Water	300.0	
LCS 550-321712/39	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-321712/40	Lab Control Sample Dup	Total/NA	Water	300.0	
550-218992-1 MS	CH-CCR-BAPTD-0424	Total/NA	Water	300.0	
550-218992-1 MSD	CH-CCR-BAPTD-0424	Total/NA	Water	300.0	

Metals

Prep Batch: 321669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	200.8	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	200.8	
MB 550-321669/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-321669/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-321669/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-218981-C-1-A MS	Matrix Spike	Total/NA	Water	200.8	
550-218981-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Prep Batch: 321676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	200.7	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	200.7	
MB 550-321676/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-321676/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-321676/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-218937-E-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-218937-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 321791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	200.8 LL	321669
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	200.8 LL	321669
MB 550-321669/1-A	Method Blank	Total/NA	Water	200.8 LL	321669
LCS 550-321669/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	321669
LCSD 550-321669/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	321669
550-218981-C-1-A MS	Matrix Spike	Total/NA	Water	200.8 LL	321669
550-218981-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	321669

Analysis Batch: 321826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-321676/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	321676
LCS 550-321676/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	321676
LCSD 550-321676/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	321676

Analysis Batch: 321905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	200.7 Rev 4.4	321676

Metals (Continued)

Analysis Batch: 321905 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	200.7 Rev 4.4	321676
MB 550-321676/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	321676
LCS 550-321676/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	321676
LCSD 550-321676/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	321676
550-218937-E-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	321676
550-218937-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	321676

Analysis Batch: 321969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	200.7 Rev 4.4	321676
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	200.7 Rev 4.4	321676
MB 550-321676/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	321676
LCS 550-321676/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	321676
LCSD 550-321676/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	321676

Prep Batch: 655424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total Recoverable	Water	200.7	
550-218992-2	CH-CCR-TWX3-0424	Total Recoverable	Water	200.7	
MB 280-655424/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-655424/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
280-192140-B-11-E MS	Matrix Spike	Total/NA	Water	200.7	
280-192140-B-11-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 656047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total Recoverable	Water	200.7 Rev 4.4	655424
550-218992-2	CH-CCR-TWX3-0424	Total Recoverable	Water	200.7 Rev 4.4	655424
MB 280-655424/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	655424
LCS 280-655424/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	655424
280-192140-B-11-E MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	655424
280-192140-B-11-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	655424

General Chemistry

Analysis Batch: 321689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	SM 2540C	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	SM 2540C	
MB 550-321689/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-321689/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-321689/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-218976-S-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 321889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	SM 2320B	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	SM 2320B	
MB 550-321889/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-321889/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-321889/16	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 321889 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1 DU	CH-CCR-BAPTD-0424	Total/NA	Water	SM 2320B	

Analysis Batch: 322064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	SM 4500 H+ B	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-322064/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-322064/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-219015-B-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 322139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	SM 5310B	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	SM 5310B	
MB 550-322139/5	Method Blank	Total/NA	Water	SM 5310B	
LCS 550-322139/6	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 550-322139/7	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
550-219071-C-13 MS	Matrix Spike	Total/NA	Water	SM 5310B	
550-219071-C-13 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 322320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	350.1	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	350.1	
MB 550-322320/29	Method Blank	Total/NA	Water	350.1	
LCS 550-322320/30	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-322320/31	Lab Control Sample Dup	Total/NA	Water	350.1	
550-218966-T-1 MS	Matrix Spike	Total/NA	Water	350.1	
550-218966-T-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 655922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-218992-1	CH-CCR-BAPTD-0424	Total/NA	Water	353.2	
550-218992-2	CH-CCR-TWX3-0424	Total/NA	Water	353.2	
MB 280-655922/94	Method Blank	Total/NA	Water	353.2	
LCS 280-655922/92	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-655922/93	Lab Control Sample Dup	Total/NA	Water	353.2	
280-192011-D-1 MS	Matrix Spike	Total/NA	Water	353.2	
280-192011-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218992-1

Client Sample ID: CH-CCR-BAPTD-0424

Lab Sample ID: 550-218992-1

Date Collected: 05/28/24 16:08

Matrix: Water

Date Received: 05/29/24 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	321712	RDC	EET PHX	05/31/24 00:02
Total/NA	Analysis	300.0		100	321712	RDC	EET PHX	05/31/24 00:21
Total Recoverable	Prep	200.7			655424	KLG	EET DEN	05/31/24 15:08
Total Recoverable	Analysis	200.7 Rev 4.4		1	656047	NKC	EET DEN	06/05/24 16:46
Total/NA	Prep	200.7			321676	SGO	EET PHX	05/30/24 07:57
Total/NA	Analysis	200.7 Rev 4.4		1	321905	GLW	EET PHX	06/03/24 22:02
Total/NA	Prep	200.7			321676	SGO	EET PHX	05/30/24 07:57
Total/NA	Analysis	200.7 Rev 4.4		20	321969	GLW	EET PHX	06/04/24 23:00
Total/NA	Prep	200.8			321669	SGO	EET PHX	05/30/24 05:19
Total/NA	Analysis	200.8 LL		10	321791	DSJ	EET PHX	05/31/24 14:21
Total/NA	Analysis	350.1		1	322320	KMS	EET PHX	06/11/24 13:49
Total/NA	Analysis	353.2		1	655922	BCR	EET DEN	06/04/24 16:25
Total/NA	Analysis	SM 2320B		1	321889	ELN	EET PHX	05/31/24 12:40
Total/NA	Analysis	SM 2540C		1	321689	JLO	EET PHX	05/30/24 10:18 - 06/03/24 11:13 [1]
Total/NA	Analysis	SM 4500 H+ B		1	322064	ELN	EET PHX	06/06/24 18:04
Total/NA	Analysis	SM 5310B		1	322139	AKS	EET PHX	06/06/24 21:48

Client Sample ID: CH-CCR-TWX3-0424

Lab Sample ID: 550-218992-2

Date Collected: 05/28/24 15:56

Matrix: Water

Date Received: 05/29/24 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	321712	RDC	EET PHX	05/31/24 01:16
Total/NA	Analysis	300.0		50	321712	RDC	EET PHX	05/31/24 01:34
Total Recoverable	Prep	200.7			655424	KLG	EET DEN	05/31/24 15:08
Total Recoverable	Analysis	200.7 Rev 4.4		1	656047	NKC	EET DEN	06/05/24 16:50
Total/NA	Prep	200.7			321676	SGO	EET PHX	05/30/24 07:57
Total/NA	Analysis	200.7 Rev 4.4		1	321905	GLW	EET PHX	06/03/24 22:06
Total/NA	Prep	200.7			321676	SGO	EET PHX	05/30/24 07:57
Total/NA	Analysis	200.7 Rev 4.4		20	321969	GLW	EET PHX	06/04/24 23:04
Total/NA	Prep	200.8			321669	SGO	EET PHX	05/30/24 05:19
Total/NA	Analysis	200.8 LL		10	321791	DSJ	EET PHX	05/31/24 14:23
Total/NA	Analysis	350.1		1	322320	KMS	EET PHX	06/11/24 13:50
Total/NA	Analysis	353.2		1	655922	BCR	EET DEN	06/04/24 16:27
Total/NA	Analysis	SM 2320B		1	321889	ELN	EET PHX	05/31/24 12:53
Total/NA	Analysis	SM 2540C		1	321689	JLO	EET PHX	05/30/24 10:18 - 06/03/24 11:13 [1]
Total/NA	Analysis	SM 4500 H+ B		1	322064	ELN	EET PHX	06/06/24 18:07
Total/NA	Analysis	SM 5310B		1	322139	AKS	EET PHX	06/06/24 22:00

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-218992-1
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-24

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218992-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Total (TOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

218992

Client Contact	Cody Miller		Date:	COC No:
Arizona Public Service	480-209-6529	Lab Contact: Linda Eshelman	Carrier:	1 of 1 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☑ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (BAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Li, Fe, Mn, K, Mg, Na)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5410B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)		Sample Specific Notes:
-01 CH-CCR-BAPTD-0424	05/28/24	16:08	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X		Seepage Pump Port Sample
-02 CH-CCR-TWX3-0424	05/28/24	15:56	G	W	9	N		X	X	X		X		X	X	X		X	X	X	X		"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	1	1	2	2	3	3	1	1		

550-218992 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Temp 2-12/Cooler ice

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

EETA PHX
5/29/24 1358

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: WSP	Date/Time: 5/29/24 1358	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA PHX	Date/Time: 5/29/24 @ 1358

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39695.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona		Job #: 550-218992-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 6/11/2024			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-CCR-BAPTD-0424 (550-218992-1)	5/28/24	16:08 Arizona		Water			X	X	2	
CH-CCR-TWX3-0424 (550-218992-2)	5/28/24	15:56 Arizona		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/30/24 15:15	EETA PHX	Feki		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				5-31-24 0910	EETDEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.1°C NAONA CF 0.2

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218992-1

Login Number: 218992
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218992-1

Login Number: 218992
List Number: 2
Creator: Held, Wesley

List Source: Eurofins Denver
List Creation: 05/31/24 11:07 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/27/2024 2:46:52 PM

JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plant (FAP)

JOB NUMBER

550-219966-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



Generated
6/27/2024 2:46:52 PM

Authorized for release by
Rebecca Gentes, Project Manager I
Rebecca.Gentes@et.eurofinsus.com
Designee for
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-219966-1
SDG: APS Cholla Power Plant (FAP)

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-219966-1 — Eurofins Phoenix

Job Narrative
550-219966-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 6/21/2024 2:01 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-219966-1
SDG: APS Cholla Power Plant (FAP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-219966-1	CH-CCR-M64A-0524	Water	05/28/24 10:39	06/21/24 14:01

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-219966-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M64A-0524

Lab Sample ID: 550-219966-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lithium	0.28		0.050		mg/L	1		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-219966-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M64A-0524
Date Collected: 05/28/24 10:39
Date Received: 06/21/24 14:01

Lab Sample ID: 550-219966-1
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.28		0.050		mg/L		06/26/24 06:02	06/26/24 16:41	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 570-454671/1-A
Matrix: Water
Analysis Batch: 455026

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 454671

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		0.050		mg/L		06/26/24 06:02	06/26/24 15:05	1

Lab Sample ID: LCS 570-454671/2-A
Matrix: Water
Analysis Batch: 455026

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 454671

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			0.500	0.503		mg/L		101	85 - 115		

Lab Sample ID: LCSD 570-454671/3-A
Matrix: Water
Analysis Batch: 455026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 454671

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium			0.500	0.492		mg/L		98	85 - 115	2	20

Lab Sample ID: 570-189128-A-4-C MS
Matrix: Water
Analysis Batch: 455026

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 454671

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium	ND		0.500	0.485		mg/L		97	80 - 120		

Lab Sample ID: 570-189128-A-4-D MSD
Matrix: Water
Analysis Batch: 455026

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 454671

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	ND		0.500	0.484		mg/L		97	80 - 120	0	20

QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-219966-1
SDG: APS Cholla Power Plant (FAP)

Metals

Prep Batch: 454671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-219966-1	CH-CCR-M64A-0524	Total Recoverable	Water	200.7	
MB 570-454671/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 570-454671/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 570-454671/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
570-189128-A-4-C MS	Matrix Spike	Total Recoverable	Water	200.7	
570-189128-A-4-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7	

Analysis Batch: 455026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-219966-1	CH-CCR-M64A-0524	Total Recoverable	Water	200.7 Rev 4.4	454671
MB 570-454671/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	454671
LCS 570-454671/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	454671
LCSD 570-454671/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	454671
570-189128-A-4-C MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	454671
570-189128-A-4-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	454671

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-219966-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M64A-0524

Date Collected: 05/28/24 10:39
Date Received: 06/21/24 14:01

Lab Sample ID: 550-219966-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			454671	JP8N	EET CAL 4	06/26/24 06:02
Total Recoverable	Analysis	200.7 Rev 4.4		1	455026	P1R	EET CAL 4	06/26/24 16:41

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-219966-1
Project/Site: CCR Groundwater Monitoring
SDG: APS Cholla Power Plant (FAP)

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-219966-1
SDG: APS Cholla Power Plant (FAP)

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET CAL 4
200.7	Preparation, Total Recoverable Metals	EPA	EET CAL 4

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

219916

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller		Date:	COC No:
Arizona Public Service	(480) 209-6529	Lab Contact: Linda Eshelman	Carrier:	1 of 1 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: ~~3005903078~~ 3005923358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 - Alk. as	Sample Specific Notes:
CH-CCR-M64A-0524 -01	5/28/24	1039	G	W	1	N	N					X											sample has been kept cold in sealed container since collection
								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1	

550-219966 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

3.4°C/ICE/CPO

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company: WSP	Date/Time: 5/29/24 1432	Received by:	Company: WSP	Date/Time: 5/29/24 1432
Relinquished by:	Company: WSP	Date/Time: 6/21/24 1401	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA PHX	Date/Time: 6/21/24 @ 1401

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

6/27/2024

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone 602-437-3340

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman Linda	Carrier Tracking No(s):	COC No: 550-39841 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus com	State of Origin Arizona	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona, State Program - Arizona		Job #: 550-219966-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 7/8/2024			Preservation Codes -
City: Tustin	TAT Requested (days):			Loc: 550 219966
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200 7/200 7_P_TR (MOD) Custom 200.7 Metals List	Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X		X	
CH-CCR-M64A-0524 (550-219966-1)	5/28/24	10.39 Arizona		Water			X	1	

550-219966 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Eve 06-24-24	14:40	EETA-PHX	Fedex		
Fedex			[signature]	6/25/24 0935	EC

Custody Seals Intact:	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		2.0/1.4 SC12

Ver 04/02/2024

6/27/2024

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-219966-1
SDG Number: APS Cholla Power Plant (FAP)

Login Number: 219966
List Number: 1
Creator: Vela, Jorge

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-219966-1
SDG Number: APS Cholla Power Plant (FAP)

Login Number: 219966
List Number: 2
Creator: Aguilera, Ernan

List Source: Eurofins Calscience
List Creation: 06/25/24 11:37 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 24, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M65A-0424	< 0.5	1.4 ± 0.4	1.4 ± 0.4
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

Robert L. Metzger, Ph.D., C.H.P. 5/13/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 24, 2024 (Sample Date) 9:40 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	1.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	1.4 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74363

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M65A-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 23, 2024
Sample Received: April 26, 2024
Analysis Completed: May 13, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-BudHunt-0424	< 0.5	< 0.9	< 0.9
Date of Analysis	5/3/2024	5/3/2024	5/3/2024

5/13/2024
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 23, 2024 (Sample Date) 8:36 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/3/2024	< 0.9		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/3/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/3/2024	< 0.9		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

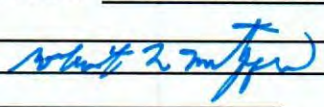
Specimen Number: RSE74364

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-BudHunt-0424

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information	
Name:	Natalie Chrisman/602-250-3608
Company	Arizona Public Service
Address	4801 Cholla Lake Rd, Joseph City, AZ 86032
Phone	928-587-0319
Site	APS Cholla Power Plant (FAP)

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-M65A-0423	04/24/24	940	GW						X	X	X						74363
CH-CCR-BudHunt-0423	04/23/24	836	GW						X	X	X						74364

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300590342

Instructions/Comments
Method HPGe

Relinquished By: [illegible]	Company: WSP	Date/time: 4-26-24 1203	Received By: [signature]		Company: RSE	Date/time: 4-26-24 12:08
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Gmail

Pat Flannery <admin@radsafe.com>

APS Cholla SA1 Samples - COCs 0424

1 message

Hartman, Bradley <bradley.hartman@wsp.com>
To: "admin@radsafe.com" <admin@radsafe.com>
Cc: "Cody.Miller@aps.com" <cody.miller@aps.com>

Mon, May 6, 2024 at 9:57 AM

Hi Pat,

The COCs submitted over the last 3 weeks from WSP contained "0423" on the COC. That was a mistake. They should have read "0424", how it is presented on the bottle label.

If you have any questions, please reach out.
Thanks,

Brad Hartman

Associate Consultant - Geologist

(330) 614-9983

WSP USA Earth and Environmental, Inc.

4600 East Washington Street, Suite 600

Phoenix, Arizona 85034

wsp.com

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Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 18, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M43A-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 18, 2024 (Sample Date) 10:33 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74299

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M43A-0424

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 18, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M45A-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 18, 2024 (Sample Date) 9:05 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74300

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M45A-0424

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 17, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M46A-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 17, 2024 (Sample Date) 15:35 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74301

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M46A-0424

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 18, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M50A-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 18, 2024 (Sample Date) 14:56 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74302

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M50A-0424

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 18, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M51A-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 18, 2024 (Sample Date) 14:19 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74303

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M51A-0424

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 17, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M63A-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 17, 2024 (Sample Date) 11:21 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74304

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M63A-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 17, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD05-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

Robert L. Metzger, Ph.D., C.H.P. 5/6/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 17, 2024 (Sample Date) 12:34 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74305

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD05-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 18, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M64A-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

Robert L. Metzger, Ph.D., C.H.P. 5/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 18, 2024 (Sample Date) 13:13 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74306

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M64A-0424

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 17, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW66A-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 17, 2024 (Sample Date) 14:06 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

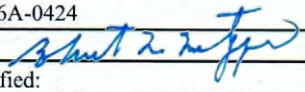
Specimen Number: RSE74307

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW66A-0424

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 18, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W123R-0424	< 0.4	< 0.8	< 0.8
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

Robert L. Metzger, Ph.D., C.H.P. 5/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 18, 2024 (Sample Date) 16:24 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74308

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W123R-0424

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 18, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W125-0424	1.4 ± 0.4	< 0.9	1.4 ± 0.4
Date of Analysis	4/26/2024	4/26/2024	4/26/2024

5/6/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 18, 2024 (Sample Date) 15:44 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	1.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	1.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.9		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

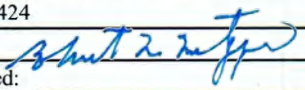
Specimen Number: RSE74309

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W125-0424

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 17, 2024
Sample Received: April 19, 2024
Analysis Completed: May 06, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W126R-0424	< 0.7	< 0.7	< 0.7

Date of Analysis	4/26/2024	4/26/2024	4/26/2024

Robert L. Metzger, Ph.D., C.H.P. 5/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

April 17, 2024 (Sample Date) 13:06 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/26/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/26/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/26/2024	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

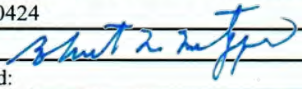
Specimen Number: RSE74310

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W126R-0424

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Gmail

Pat Flannery <admin@radsafe.com>

APS Cholla SA1 Samples - COCs 0424

1 message

Hartman, Bradley <bradley.hartman@wsp.com> Mon, May 6, 2024 at 9:57 AM
To: "admin@radsafe.com" <admin@radsafe.com>
Cc: "Cody.Miller@aps.com" <cody.miller@aps.com>

Hi Pat,

The COCs submitted over the last 3 weeks from WSP contained "0423" on the COC. That was a mistake. They should have read "0424", how it is presented on the bottle label.

If you have any questions, please reach out.
Thanks,

Brad Hartman

Associate Consultant - Geologist

(330) 614-9983

WSP USA Earth and Environmental, Inc.

4600 East Washington Street, Suite 600

Phoenix, Arizona 85034

wsp.com

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Client Information	
Name:	Natalie Chrisman/602-250-3608
Company	Arizona Public Service
Address	4801 Cholla Lake Rd, Joseph City, AZ 86032
Phone	928-587-0319
Site	APS Cholla Power Plant (FAP)

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-M43A-0423	04/18/24	1033	GW						X	X	X						74299
CH-CCR-M45A-0423	04/18/24	905	GW						X	X	X						74300
CH-CCR-M46A-0423	04/17/24	1535	GW						X	X	X						74301
CH-CCR-M50A-0423	04/18/24	1456	GW						X	X	X						74302
CH-CCR-M51A-0423	04/18/24	1419	GW						X	X	X						74303
CH-CCR-M63A-0423	04/17/24	1121	GW						X	X	X						74304
CH-CCR-FD05-0423	04/17/24	1234	GW						X	X	X						74305
CH-CCR-M64A-0423	04/18/24	1313	GW						X	X	X						74306
CH-CCR-MW66A-0423	04/17/24	1406	GW						X	X	X						74307
CH-CCR-W123R-0423	04/18/24	1624	GW						X	X	X						74308

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300590342

Instructions/Comments
Method HPGe

4-19-24

Relinquished By: Brad Hartman	Company: WSS	Date/time: 1610	Received By: Pat Flannery		Company:	Date/time: 4.19.24	1610
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Client Information	
Name:	**Natalie Chrisman/602-250-3608**
Company	**Arizona Public Service**
Address	**4801 Cholla Lake Rd, Joseph City, AZ 86032**
Phone	**928-587-0319**
Site	**APS Cholla Power Plant (FAP)**

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air
CH-CCR-W125-0423	04/18/24	1544	**GW**						X	X	X					
CH-CCR-W126R-0423	04/17/24	1306	**GW**						X	X	X					

74309
74310

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300590342

Instructions/Comments
Method HPGe

4-19-24

Relinquished By: Brad Hartman	Company: WSP	Date/time: 1610	Received By: Pat Flemming		Company:	Date/time: 4-19-24	4:10
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 5/13/2024 1:24:09 PM

JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plant (FAP)

JOB NUMBER

550-217326-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



Generated
5/13/2024 1:24:09 PM

Authorized for release by
Rachel Sester, Project Manager I
Rachel.Sester@et.eurofinsus.com
Designee for
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Metals

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-217326-1 Eurofins Phoenix

Job Narrative
550-217326-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/19/2024 3:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.0°C, 2.8°C and 4.4°C.

HPLC/IC
Method 300_ORGFMS: Due to the high concentration of Chloride, Fluoride and Sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-319563 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 200.7 - Total Recoverable: The following samples were diluted due to the presence of S which interferes with Li: CH-CCR-M46A-0424 (550-217326-4), CH-CCR-M51A-0424 (550-217326-8), CH-CCR-M64A-0424 (550-217326-11), CH-CCR-MW66A-0424 (550-217326-13), CH-CCR-W123R-0424 (550-217326-16), CH-CCR-W126R-0424 (550-217326-19), (550-217325-D-6-B ^10), (550-217325-D-6-C MS ^10), (550-217325-D-6-D MSD ^10) and (550-217325-D-6-B SD ^50). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method SM5310_DOC_B - Dissolved: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(CCB 550-319849/22) and (MB 550-319849/6)

Method SM5310_DOC_B - Dissolved: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(CCB 550-320043/33)

Method SM5310_DOC_B - Dissolved: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for analytical batch 550-320043. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217326-1	CH-CCR-M43A-0424	Water	04/18/24 10:09	04/19/24 15:45
550-217326-2	CH-CCR-M43A-0424	Water	04/18/24 10:09	04/19/24 15:45
550-217326-3	CH-CCR-M45A-0424	Water	04/18/24 09:05	04/19/24 15:45
550-217326-4	CH-CCR-M46A-0424	Water	04/17/24 15:35	04/19/24 15:45
550-217326-5	CH-CCR-M46A-0424	Water	04/17/24 15:35	04/19/24 15:45
550-217326-6	CH-CCR-M50A-0424	Water	04/18/24 14:56	04/19/24 15:45
550-217326-7	CH-CCR-M50A-0424	Water	04/18/24 14:56	04/19/24 15:45
550-217326-8	CH-CCR-M51A-0424	Water	04/18/24 14:19	04/19/24 15:45
550-217326-9	CH-CCR-M51A-0424	Water	04/18/24 14:19	04/19/24 15:45
550-217326-10	CH-CCR-M63A-0424	Water	04/17/24 11:21	04/19/24 15:45
550-217326-11	CH-CCR-M64A-0424	Water	04/18/24 13:13	04/19/24 15:45
550-217326-12	CH-CCR-M64A-0424	Water	04/18/24 13:13	04/19/24 15:45
550-217326-13	CH-CCR-MW66A-0424	Water	04/17/24 14:06	04/19/24 15:45
550-217326-14	CH-CCR-MW66A-0424	Water	04/17/24 14:06	04/19/24 15:45
550-217326-15	CH-CCR-FD05-0424	Water	04/17/24 12:34	04/19/24 15:45
550-217326-16	CH-CCR-W123R-0424	Water	04/18/24 16:24	04/19/24 15:45
550-217326-17	CH-CCR-W123R-0424	Water	04/18/24 16:24	04/19/24 15:45
550-217326-18	CH-CCR-W125-0424	Water	04/18/24 15:44	04/19/24 15:45
550-217326-19	CH-CCR-W126R-0424	Water	04/17/24 13:06	04/19/24 15:45
550-217326-20	CH-CCR-W126R-0424	Water	04/17/24 13:06	04/19/24 15:45

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M43A-0424 — Lab Sample ID: 550-217326-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2300	D2	100		mg/L	50		300.0	Total/NA
Sulfate	2000	D2	100		mg/L	50		300.0	Total/NA
Boron	1.2		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	700		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	2.8		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	200		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.5		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	13		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1500		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	160	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0024		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.016		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0045	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.00091		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.40		0.050		mg/L	1		350.1	Total/NA
Total Dissolved Solids	7300		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	13.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M43A-0424 — Lab Sample ID: 550-217326-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	2.6		0.10		mg/L	1		200.7	Dissolved
Manganese	2.5		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.1		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.6		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M45A-0424 — Lab Sample ID: 550-217326-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	620	D2	100		mg/L	50		300.0	Total/NA
Fluoride	0.50		0.40		mg/L	1		300.0	Total/NA
Sulfate	2100	D2	100		mg/L	50		300.0	Total/NA
Boron	1.1		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	630	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	180	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0037		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.012		0.00050		mg/L	1		200.8 LL	Total/NA
Cobalt	0.00090		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0030	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.00088		0.00050		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	4800		100		mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M46A-0424 — Lab Sample ID: 550-217326-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	4500	D2	100		mg/L	50		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M46A-0424 (Continued) — Lab Sample ID: 550-217326-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.42		0.40		mg/L	1		300.0	Total/NA
Sulfate	2600	D2	100		mg/L	50		300.0	Total/NA
Boron	0.65		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	850		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	7.4		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	180		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.2		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	20		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2900		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	230	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0085		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.018		0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0018		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0014		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.010	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0012		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	1.6		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	230		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000		100		mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M46A-0424 — Lab Sample ID: 550-217326-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	6.4		0.10		mg/L	1		200.7	Dissolved
Manganese	4.2		0.010		mg/L	1		200.7	Dissolved
Arsenic	6.7		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	1.3		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	3.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	3.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	3.7		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M50A-0424 — Lab Sample ID: 550-217326-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1800	D2	100		mg/L	50		300.0	Total/NA
Fluoride	2.0		0.40		mg/L	1		300.0	Total/NA
Sulfate	2700	D2	100		mg/L	50		300.0	Total/NA
Boron	3.0		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	600		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.19		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	190		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.26		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.2		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1600		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	390	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0047		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0087		0.00050		mg/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M50A-0424 (Continued) — Lab Sample ID: 550-217326-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.00053		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0089	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0018		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	150		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	150		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6900		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	14.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M50A-0424 — Lab Sample ID: 550-217326-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	0.22		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.7		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	2.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.5		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M51A-0424 — Lab Sample ID: 550-217326-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	5700	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.2		0.40		mg/L	1		300.0	Total/NA
Sulfate	2400	D2	100		mg/L	50		300.0	Total/NA
Boron	29		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	980		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.11		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	280		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.8		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	31		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3200		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	390	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.027		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.0072		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00011		0.00010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0034		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.13	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Thallium	0.00017		0.00010		mg/L	1		200.8 LL	Total/NA
Ammonia	0.12		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	73		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	73		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	13000		200		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	14.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M51A-0424 — Lab Sample ID: 550-217326-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	1.9		0.010		mg/L	1		200.7	Dissolved
Arsenic	26		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	3.3		2.5		ug/L	5		200.8 LL	Dissolved
Dissolved Organic Carbon	2.2		0.50		mg/L	1		SM 5310B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M51A-0424 (Continued) — Lab Sample ID: 550-217326-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dissolved Organic Carbon - Duplicate	2.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.2		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M63A-0424 — Lab Sample ID: 550-217326-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	410	D2	40		mg/L	20		300.0	Total/NA
Sulfate	530	D2	40		mg/L	20		300.0	Total/NA
Boron	0.23		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	170		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	72	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0023		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.027		0.00050		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0013		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0034	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.00091		0.00050		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	1900		20		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	13.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M64A-0424 — Lab Sample ID: 550-217326-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3800	D2	100		mg/L	50		300.0	Total/NA
Sulfate	3300	D2	100		mg/L	50		300.0	Total/NA
Boron	1.0		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	630		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	7.3		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	280		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.3		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	17		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3300		25		mg/L	50		200.7 Rev 4.4	Total/NA
Arsenic	0.0016		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.012		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0040	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0012		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.96		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	430		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	430		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000		100		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	14.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M64A-0424 — Lab Sample ID: 550-217326-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	6.3		0.10		mg/L	1		200.7	Dissolved
Manganese	2.2		0.010		mg/L	1		200.7	Dissolved
Arsenic	1.4		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	4.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	4.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	4.5		0.50		mg/L	1		SM 5310B	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-MW66A-0424 — Lab Sample ID: 550-217326-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3500	D2	100		mg/L	50		300.0	Total/NA
Fluoride	0.57		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	100		mg/L	50		300.0	Total/NA
Boron	2.0		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	710		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	3.6		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	250		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	3.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	8.3		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2500		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	460	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0052		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.024		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00015		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.020		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0019		0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.00084		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.017	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0087		0.00050		mg/L	1		200.8 LL	Total/NA
Thallium	0.00011		0.00010		mg/L	1		200.8 LL	Total/NA
Ammonia	0.069		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	150		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	150		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	10000		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	15.5	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-MW66A-0424 — Lab Sample ID: 550-217326-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.14		0.10		mg/L	1		200.7	Dissolved
Manganese	3.1		0.010		mg/L	1		200.7	Dissolved
Arsenic	1.8		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	1.0		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	2.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.7		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.6		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-FD05-0424 — Lab Sample ID: 550-217326-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	390	D2	20		mg/L	10		300.0	Total/NA
Sulfate	530	D2	20		mg/L	10		300.0	Total/NA
Boron	0.23		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	170		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	72	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0024		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.028		0.00050		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0013		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0035	T5	0.00050		mg/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-FD05-0424 (Continued) — Lab Sample ID: 550-217326-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00065		0.00050		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	1800		20		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	13.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W123R-0424 — Lab Sample ID: 550-217326-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	5600	D2	200		mg/L	100		300.0	Total/NA
Fluoride	3.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	3400	D2	200		mg/L	100		300.0	Total/NA
Boron	45		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	790		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.12		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	330		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	3.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	39		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3900		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	580	T5	400		ug/L	20		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0060		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.011		0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.0022		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0043		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.12	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Selenium	0.0033		0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	1.6		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	48		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	48		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	15000		200		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	13.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W123R-0424 — Lab Sample ID: 550-217326-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	3.1		0.010		mg/L	1		200.7	Dissolved
Arsenic	6.0		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	4.4		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	2.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.5		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-W125-0424 — Lab Sample ID: 550-217326-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	680	D2	20		mg/L	10		300.0	Total/NA
Fluoride	0.51		0.40		mg/L	1		300.0	Total/NA
Sulfate	300	D2	20		mg/L	10		300.0	Total/NA
Boron	0.20		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	120		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	33	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-W125-0424 (Continued) — Lab Sample ID: 550-217326-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0049		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.020		0.00050		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0018		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0031	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.00055		0.00050		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	1800		20		mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	13.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W126R-0424 — Lab Sample ID: 550-217326-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	6100	D2	200		mg/L	100		300.0	Total/NA
Fluoride	4.2		0.40		mg/L	1		300.0	Total/NA
Sulfate	3600	D2	200		mg/L	100		300.0	Total/NA
Boron	47		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	790		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.32		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	420		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.74		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	48		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	4500		25		mg/L	50		200.7 Rev 4.4	Total/NA
Lithium	660	T5	400		ug/L	20		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0045		0.0025		mg/L	5		200.8 LL	Total/NA
Barium	0.010		0.0025		mg/L	5		200.8 LL	Total/NA
Chromium	0.028		0.0050		mg/L	5		200.8 LL	Total/NA
Cobalt	0.0049		0.0025		mg/L	5		200.8 LL	Total/NA
Molybdenum	0.26	T5	0.0025		mg/L	5		200.8 LL	Total/NA
Selenium	0.0048		0.0025		mg/L	5		200.8 LL	Total/NA
Ammonia	0.53		0.050		mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.10		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	72		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	72		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	17000		200		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	14.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-W126R-0424 — Lab Sample ID: 550-217326-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.11		0.10		mg/L	1		200.7	Dissolved
Manganese	0.67		0.010		mg/L	1		200.7	Dissolved
Arsenic	4.4		2.5		ug/L	5		200.8 LL	Dissolved
Cobalt	4.8		2.5		ug/L	5		200.8 LL	Dissolved
Dissolved Organic Carbon	2.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.0		0.50		mg/L	1		SM 5310B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M43A-0424

Date Collected: 04/18/24 10:09
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2300**	**D2**	100		mg/L			04/22/24 19:09	50
Fluoride	ND		0.40		mg/L			04/22/24 18:51	1
Sulfate	**2000**	**D2**	100		mg/L			04/22/24 19:09	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.2**		0.050		mg/L		04/24/24 07:50	04/27/24 13:25	1
Calcium	**700**		2.0		mg/L		04/24/24 07:50	04/27/24 13:25	1
Iron	**2.8**		0.10		mg/L		04/24/24 07:50	04/27/24 13:25	1
Magnesium	**200**		2.0		mg/L		04/24/24 07:50	04/27/24 13:25	1
Manganese	**2.5**		0.010		mg/L		04/24/24 07:50	04/27/24 13:25	1
Potassium	**13**		0.50		mg/L		04/24/24 07:50	04/27/24 13:25	1
Sodium	**1500**		25		mg/L		04/24/24 07:50	04/29/24 18:35	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 13:25	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**160**	**T5**	20		ug/L		04/25/24 09:21	04/26/24 18:16	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:34	1
Arsenic	**0.0024**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:34	1
Barium	**0.016**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:34	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:34	1
Chromium	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:34	1
Cobalt	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:34	1
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:34	1
Molybdenum	**0.0045**	**T5**	0.00050		mg/L		04/22/24 09:12	04/25/24 16:34	1
Selenium	**0.00091**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:34	1
Thallium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:34	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:36	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.40**		0.050		mg/L			04/25/24 15:54	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:10	1
Total Dissolved Solids (SM 2540C)	**7300**		100		mg/L			04/25/24 14:13	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			04/30/24 15:16	1
Temperature (SM 4500 H+ B)	**13.0**	**H5 T5**	0.1		Degrees C			04/30/24 15:16	1

Client Sample ID: CH-CCR-M43A-0424

Date Collected: 04/18/24 10:09
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-2

Matrix: Water

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**2.6**		0.10		mg/L		04/24/24 07:50	04/27/24 13:31	1

Client Sample ID: CH-CCR-M43A-0424

Lab Sample ID: 550-217326-2

Date Collected: 04/18/24 10:09
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**2.5**		0.010		mg/L		04/24/24 07:50	04/27/24 13:31	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.1**		0.50		ug/L		04/22/24 09:12	04/25/24 16:36	1
Cobalt	ND		0.50		ug/L		04/22/24 09:12	04/25/24 16:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**1.6**		0.50		mg/L			04/25/24 18:59	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**1.6**		0.50		mg/L			04/25/24 18:59	1
Dissolved Organic Carbon - Quad (SM 5310B)	**1.6**		0.50		mg/L			04/25/24 18:59	1

Client Sample ID: CH-CCR-M45A-0424

Lab Sample ID: 550-217326-3

Date Collected: 04/18/24 09:05
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**620**	**D2**	100		mg/L			04/22/24 19:46	50
Fluoride	**0.50**		0.40		mg/L			04/22/24 19:28	1
Sulfate	**2100**	**D2**	100		mg/L			04/22/24 19:46	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.1**		0.050		mg/L		04/24/24 07:50	04/27/24 13:18	1
Calcium	**630**	**M3**	2.0		mg/L		04/24/24 07:50	04/27/24 13:18	1
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 13:18	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**180**	**T5**	20		ug/L		04/25/24 09:21	04/26/24 18:21	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:38	1
Arsenic	**0.0037**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:38	1
Barium	**0.012**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:38	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:38	1
Chromium	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:38	1
Cobalt	**0.00090**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:38	1
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:38	1
Molybdenum	**0.0030**	**T5**	0.00050		mg/L		04/22/24 09:12	04/25/24 16:38	1
Selenium	**0.00088**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:38	1
Thallium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:38	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:38	1

Client Sample ID: CH-CCR-M45A-0424

Lab Sample ID: 550-217326-3

Date Collected: 04/18/24 09:05
Matrix: Water
Date Received: 04/19/24 15:45

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	4800		100		mg/L			04/25/24 14:13	1
pH (SM 4500 H+ B)	7.2	H5	1.7		SU			04/30/24 15:17	1
Temperature (SM 4500 H+ B)	12.4	H5 T5	0.1		Degrees C			04/30/24 15:17	1

Client Sample ID: CH-CCR-M46A-0424

Lab Sample ID: 550-217326-4

Date Collected: 04/17/24 15:35
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4500	D2	100		mg/L			04/22/24 20:23	50
Fluoride	0.42		0.40		mg/L			04/22/24 20:05	1
Sulfate	2600	D2	100		mg/L			04/22/24 20:23	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.65		0.050		mg/L		04/24/24 07:50	04/27/24 13:21	1
Calcium	850		2.0		mg/L		04/24/24 07:50	04/27/24 13:21	1
Iron	7.4		0.10		mg/L		04/24/24 07:50	04/27/24 13:21	1
Magnesium	180		2.0		mg/L		04/24/24 07:50	04/27/24 13:21	1
Manganese	4.2		0.010		mg/L		04/24/24 07:50	04/27/24 13:21	1
Potassium	20		0.50		mg/L		04/24/24 07:50	04/27/24 13:21	1
Sodium	2900		25		mg/L		04/24/24 07:50	04/29/24 18:31	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 13:21	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	230	T5	200		ug/L		04/25/24 09:21	05/09/24 19:49	10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:40	1
Arsenic	0.0085		0.00050		mg/L		04/22/24 09:12	04/25/24 16:40	1
Barium	0.018		0.00050		mg/L		04/22/24 09:12	04/25/24 16:40	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:40	1
Chromium	0.0018		0.0010		mg/L		04/22/24 09:12	04/25/24 16:40	1
Cobalt	0.0014		0.00050		mg/L		04/22/24 09:12	04/25/24 16:40	1
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:40	1
Molybdenum	0.010	T5	0.00050		mg/L		04/22/24 09:12	04/25/24 16:40	1
Selenium	0.0012		0.00050		mg/L		04/22/24 09:12	04/25/24 16:40	1
Thallium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:40	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	1.6		0.050		mg/L			04/25/24 16:27	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:12	1
Alkalinity as CaCO3 (SM 2320B)	230		6.0		mg/L			04/30/24 13:55	1

Client Sample ID: CH-CCR-M46A-0424

Lab Sample ID: 550-217326-4
Matrix: Water
Date Collected: 04/17/24 15:35
Date Received: 04/19/24 15:45

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 13:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**230**		6.0		mg/L			04/30/24 13:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 13:55	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 13:55	1
Total Dissolved Solids (SM 2540C)	**12000**		100		mg/L			04/24/24 16:37	1
pH (SM 4500 H+ B)	**7.2**	**H5**	1.7		SU			04/30/24 15:19	1
Temperature (SM 4500 H+ B)	**12.5**	**H5 T5**	0.1		Degrees C			04/30/24 15:19	1

Client Sample ID: CH-CCR-M46A-0424

Lab Sample ID: 550-217326-5
Matrix: Water
Date Collected: 04/17/24 15:35
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**6.4**		0.10		mg/L		04/24/24 07:50	04/27/24 13:34	1
Manganese	**4.2**		0.010		mg/L		04/24/24 07:50	04/27/24 13:34	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.7**		0.50		ug/L		04/22/24 09:12	04/25/24 16:42	1
Cobalt	**1.3**		0.50		ug/L		04/22/24 09:12	04/25/24 16:42	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**3.7**		0.50		mg/L			04/25/24 19:12	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**3.7**		0.50		mg/L			04/25/24 19:12	1
Dissolved Organic Carbon - Quad (SM 5310B)	**3.7**		0.50		mg/L			04/25/24 19:12	1

Client Sample ID: CH-CCR-M50A-0424

Lab Sample ID: 550-217326-6
Matrix: Water
Date Collected: 04/18/24 14:56
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1800**	**D2**	100		mg/L			04/22/24 21:00	50
Fluoride	**2.0**		0.40		mg/L			04/22/24 20:41	1
Sulfate	**2700**	**D2**	100		mg/L			04/22/24 21:00	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.0**		0.050		mg/L		04/24/24 07:50	04/27/24 13:38	1
Calcium	**600**		2.0		mg/L		04/24/24 07:50	04/27/24 13:38	1
Iron	**0.19**		0.10		mg/L		04/24/24 07:50	04/27/24 13:38	1
Magnesium	**190**		2.0		mg/L		04/24/24 07:50	04/27/24 13:38	1
Manganese	**0.26**		0.010		mg/L		04/24/24 07:50	04/27/24 13:38	1
Potassium	**9.2**		0.50		mg/L		04/24/24 07:50	04/27/24 13:38	1
Sodium	**1600**		25		mg/L		04/24/24 07:50	04/29/24 18:38	50

Client Sample ID: CH-CCR-M50A-0424

Lab Sample ID: 550-217326-6

Date Collected: 04/18/24 14:56
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 13:38	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**390**	**T5**	20		ug/L		04/25/24 09:21	04/26/24 18:48	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:44	1
Arsenic	**0.0047**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:44	1
Barium	**0.0087**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:44	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:44	1
Chromium	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:44	1
Cobalt	**0.00053**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:44	1
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:44	1
Molybdenum	**0.0089**	**T5**	0.00050		mg/L		04/22/24 09:12	04/25/24 16:44	1
Selenium	**0.0018**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:44	1
Thallium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:44	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			04/25/24 15:56	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:14	1
Alkalinity as CaCO3 (SM 2320B)	**150**		6.0		mg/L			04/30/24 14:02	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 14:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**150**		6.0		mg/L			04/30/24 14:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:02	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:02	1
Total Dissolved Solids (SM 2540C)	**6900**		100		mg/L			04/25/24 14:13	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			04/30/24 15:20	1
Temperature (SM 4500 H+ B)	**14.0**	**H5 T5**	0.1		Degrees C			04/30/24 15:20	1

Client Sample ID: CH-CCR-M50A-0424

Lab Sample ID: 550-217326-7

Date Collected: 04/18/24 14:56
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/24/24 07:50	04/27/24 13:41	1
Manganese	**0.22**		0.010		mg/L		04/24/24 07:50	04/27/24 13:41	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.7**		0.50		ug/L		04/22/24 09:12	04/25/24 16:46	1
Cobalt	ND		0.50		ug/L		04/22/24 09:12	04/25/24 16:46	1

Client Sample ID: CH-CCR-M50A-0424

Lab Sample ID: 550-217326-7

Date Collected: 04/18/24 14:56
Matrix: Water
Date Received: 04/19/24 15:45

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	2.5		0.50		mg/L			04/25/24 19:24	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	2.5		0.50		mg/L			04/25/24 19:24	1
Dissolved Organic Carbon - Quad (SM 5310B)	2.5		0.50		mg/L			04/25/24 19:24	1

Client Sample ID: CH-CCR-M51A-0424

Lab Sample ID: 550-217326-8

Date Collected: 04/18/24 14:19
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5700	D2	200		mg/L			04/24/24 21:03	100
Fluoride	2.2		0.40		mg/L			04/22/24 21:55	1
Sulfate	2400	D2	100		mg/L			04/22/24 22:13	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	29		0.050		mg/L		04/24/24 07:50	04/27/24 13:44	1
Calcium	980		2.0		mg/L		04/24/24 07:50	04/27/24 13:44	1
Iron	0.11		0.10		mg/L		04/24/24 07:50	04/27/24 13:44	1
Magnesium	280		2.0		mg/L		04/24/24 07:50	04/27/24 13:44	1
Manganese	1.8		0.010		mg/L		04/24/24 07:50	04/27/24 13:44	1
Potassium	31		0.50		mg/L		04/24/24 07:50	04/27/24 13:44	1
Sodium	3200		25		mg/L		04/24/24 07:50	04/29/24 18:42	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 13:44	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	390	T5	200		ug/L		04/25/24 09:21	05/09/24 19:55	10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:48	1
Arsenic	0.027		0.0025		mg/L		04/22/24 09:12	04/29/24 17:14	5
Barium	0.0072		0.00050		mg/L		04/22/24 09:12	04/25/24 16:48	1
Cadmium	0.00011		0.00010		mg/L		04/22/24 09:12	04/25/24 16:48	1
Chromium	ND		0.0050		mg/L		04/22/24 09:12	04/29/24 17:14	5
Cobalt	0.0034		0.0025		mg/L		04/22/24 09:12	04/29/24 17:14	5
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:48	1
Molybdenum	0.13	T5	0.00050		mg/L		04/22/24 09:12	04/25/24 16:48	1
Selenium	ND		0.0025		mg/L		04/22/24 09:12	04/29/24 17:14	5
Thallium	0.00017		0.00010		mg/L		04/22/24 09:12	04/25/24 16:48	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:53	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.12		0.050		mg/L			04/25/24 15:57	1

Client Sample ID: CH-CCR-M51A-0424

Lab Sample ID: 550-217326-8
Matrix: Water
Date Collected: 04/18/24 14:19
Date Received: 04/19/24 15:45

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:16	1
Alkalinity as CaCO3 (SM 2320B)	**73**		6.0		mg/L			04/30/24 14:09	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 14:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**73**		6.0		mg/L			04/30/24 14:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:09	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:09	1
Total Dissolved Solids (SM 2540C)	**13000**		200		mg/L			04/25/24 14:13	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			04/30/24 15:21	1
Temperature (SM 4500 H+ B)	**14.4**	**H5 T5**	0.1		Degrees C			04/30/24 15:21	1

Client Sample ID: CH-CCR-M51A-0424

Lab Sample ID: 550-217326-9
Matrix: Water
Date Collected: 04/18/24 14:19
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/24/24 07:50	04/27/24 13:48	1
Manganese	**1.9**		0.010		mg/L		04/24/24 07:50	04/27/24 13:48	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**26**		2.5		ug/L		04/22/24 09:12	04/29/24 17:16	5
Cobalt	**3.3**		2.5		ug/L		04/22/24 09:12	04/29/24 17:16	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.2**		0.50		mg/L			04/25/24 19:39	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.2**		0.50		mg/L			04/25/24 19:39	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.2**		0.50		mg/L			04/25/24 19:39	1

Client Sample ID: CH-CCR-M63A-0424

Lab Sample ID: 550-217326-10
Matrix: Water
Date Collected: 04/17/24 11:21
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**410**	**D2**	40		mg/L			04/22/24 22:50	20
Fluoride	ND		0.40		mg/L			04/22/24 22:32	1
Sulfate	**530**	**D2**	40		mg/L			04/22/24 22:50	20

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.23**		0.050		mg/L		04/24/24 07:50	04/27/24 13:51	1
Calcium	**170**		2.0		mg/L		04/24/24 07:50	04/27/24 13:51	1
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 13:51	1

Client Sample ID: CH-CCR-M63A-0424

Lab Sample ID: 550-217326-10

Date Collected: 04/17/24 11:21
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**72**	**T5**	20		ug/L		04/25/24 09:21	04/26/24 18:57	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:53	1
Arsenic	**0.0023**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:53	1
Barium	**0.027**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:53	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:53	1
Chromium	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:53	1
Cobalt	**0.0013**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:53	1
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:53	1
Molybdenum	**0.0034**	**T5**	0.00050		mg/L		04/22/24 09:12	04/25/24 16:53	1
Selenium	**0.00091**		0.00050		mg/L		04/22/24 09:12	04/25/24 16:53	1
Thallium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:53	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:55	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1900**		20		mg/L			04/24/24 16:37	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			04/30/24 15:22	1
Temperature (SM 4500 H+ B)	**13.5**	**H5 T5**	0.1		Degrees C			04/30/24 15:22	1

Client Sample ID: CH-CCR-M64A-0424

Lab Sample ID: 550-217326-11

Date Collected: 04/18/24 13:13
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3800**	**D2**	100		mg/L			04/22/24 23:27	50
Fluoride	ND		0.40		mg/L			04/22/24 23:09	1
Sulfate	**3300**	**D2**	100		mg/L			04/22/24 23:27	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.0**		0.050		mg/L		04/24/24 07:50	04/27/24 14:01	1
Calcium	**630**		2.0		mg/L		04/24/24 07:50	04/27/24 14:01	1
Iron	**7.3**		0.10		mg/L		04/24/24 07:50	04/27/24 14:01	1
Magnesium	**280**		2.0		mg/L		04/24/24 07:50	04/27/24 14:01	1
Manganese	**2.3**		0.010		mg/L		04/24/24 07:50	04/27/24 14:01	1
Potassium	**17**		0.50		mg/L		04/24/24 07:50	04/27/24 14:01	1
Sodium	**3300**		25		mg/L		04/24/24 07:50	04/29/24 18:48	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 14:01	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	T5	400		ug/L		04/25/24 09:21	05/09/24 20:01	20

Client Sample ID: CH-CCR-M64A-0424

Lab Sample ID: 550-217326-11
Date Collected: 04/18/24 13:13
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 17:00	1
Arsenic	**0.0016**		0.00050		mg/L		04/22/24 09:12	04/25/24 17:00	1
Barium	**0.012**		0.00050		mg/L		04/22/24 09:12	04/25/24 17:00	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 17:00	1
Chromium	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 17:00	1
Cobalt	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 17:00	1
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 17:00	1
Molybdenum	**0.0040**	**T5**	0.00050		mg/L		04/22/24 09:12	04/25/24 17:00	1
Selenium	**0.0012**		0.00050		mg/L		04/22/24 09:12	04/29/24 17:24	1
Thallium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 17:00	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.96**		0.050		mg/L			04/25/24 15:59	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:18	1
Alkalinity as CaCO3 (SM 2320B)	**430**		6.0		mg/L			04/30/24 14:14	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 14:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**430**		6.0		mg/L			04/30/24 14:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:14	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:14	1
Total Dissolved Solids (SM 2540C)	**12000**		100		mg/L			04/25/24 14:13	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			04/30/24 15:24	1
Temperature (SM 4500 H+ B)	**14.0**	**H5 T5**	0.1		Degrees C			04/30/24 15:24	1

Client Sample ID: CH-CCR-M64A-0424

Lab Sample ID: 550-217326-12
Date Collected: 04/18/24 13:13
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**6.3**		0.10		mg/L		04/24/24 07:50	04/27/24 14:05	1
Manganese	**2.2**		0.010		mg/L		04/24/24 07:50	04/27/24 14:05	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.4**		0.50		ug/L		04/22/24 09:12	04/25/24 17:03	1
Cobalt	ND		0.50		ug/L		04/22/24 09:12	04/25/24 17:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**4.5**		0.50		mg/L			04/25/24 19:56	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**4.5**		0.50		mg/L			04/25/24 19:56	1

Client Sample ID: CH-CCR-M64A-0424

Lab Sample ID: 550-217326-12
Matrix: Water
Date Collected: 04/18/24 13:13
Date Received: 04/19/24 15:45

General Chemistry - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad (SM 5310B)	4.5		0.50		mg/L			04/25/24 19:56	1

Client Sample ID: CH-CCR-MW66A-0424

Lab Sample ID: 550-217326-13
Matrix: Water
Date Collected: 04/17/24 14:06
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3500	D2	100		mg/L			04/23/24 00:04	50
Fluoride	0.57		0.40		mg/L			04/22/24 23:45	1
Sulfate	2800	D2	100		mg/L			04/23/24 00:04	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.0		0.050		mg/L		04/24/24 07:50	04/27/24 14:08	1
Calcium	710		2.0		mg/L		04/24/24 07:50	04/27/24 14:08	1
Iron	3.6		0.10		mg/L		04/24/24 07:50	04/27/24 14:08	1
Magnesium	250		2.0		mg/L		04/24/24 07:50	04/27/24 14:08	1
Manganese	3.0		0.010		mg/L		04/24/24 07:50	04/27/24 14:08	1
Potassium	8.3		0.50		mg/L		04/24/24 07:50	04/27/24 14:08	1
Sodium	2500		25		mg/L		04/24/24 07:50	04/29/24 18:52	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 14:08	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	460	T5	200		ug/L		04/25/24 09:21	05/09/24 20:07	10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 17:05	1
Arsenic	0.0052		0.00050		mg/L		04/22/24 09:12	04/25/24 17:05	1
Barium	0.024		0.00050		mg/L		04/22/24 09:12	04/25/24 17:05	1
Cadmium	0.00015		0.00010		mg/L		04/22/24 09:12	04/25/24 17:05	1
Chromium	0.020		0.0010		mg/L		04/22/24 09:12	04/25/24 17:05	1
Cobalt	0.0019		0.00050		mg/L		04/22/24 09:12	04/25/24 17:05	1
Lead	0.00084		0.00050		mg/L		04/22/24 09:12	04/25/24 17:05	1
Molybdenum	0.017	T5	0.00050		mg/L		04/22/24 09:12	04/25/24 17:05	1
Selenium	0.0087		0.00050		mg/L		04/22/24 09:12	04/29/24 17:26	1
Thallium	0.00011		0.00010		mg/L		04/22/24 09:12	04/25/24 17:05	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:57	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.069		0.050		mg/L			04/25/24 16:47	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:20	1
Alkalinity as CaCO3 (SM 2320B)	150		6.0		mg/L			04/30/24 14:24	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 14:24	1

Client Sample ID: CH-CCR-MW66A-0424

Lab Sample ID: 550-217326-13
Matrix: Water
Date Collected: 04/17/24 14:06
Date Received: 04/19/24 15:45

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	150		6.0		mg/L			04/30/24 14:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:24	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:24	1
Total Dissolved Solids (SM 2540C)	10000		100		mg/L			04/24/24 16:37	1
pH (SM 4500 H+ B)	7.4	H5	1.7		SU			04/30/24 15:26	1
Temperature (SM 4500 H+ B)	15.5	H5 T5	0.1		Degrees C			04/30/24 15:26	1

Client Sample ID: CH-CCR-MW66A-0424

Lab Sample ID: 550-217326-14
Matrix: Water
Date Collected: 04/17/24 14:06
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.14		0.10		mg/L		04/24/24 07:50	04/27/24 14:12	1
Manganese	3.1		0.010		mg/L		04/24/24 07:50	04/27/24 14:12	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.8		0.50		ug/L		04/22/24 09:12	04/25/24 17:07	1
Cobalt	1.0		0.50		ug/L		04/22/24 09:12	04/25/24 17:07	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	2.6		0.50		mg/L			04/25/24 20:09	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	2.7		0.50		mg/L			04/25/24 20:09	1
Dissolved Organic Carbon - Quad (SM 5310B)	2.6		0.50		mg/L			04/25/24 20:09	1

Client Sample ID: CH-CCR-FD05-0424

Lab Sample ID: 550-217326-15
Matrix: Water
Date Collected: 04/17/24 12:34
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	390	D2	20		mg/L			04/23/24 00:41	10
Fluoride	ND		0.40		mg/L			04/23/24 00:22	1
Sulfate	530	D2	20		mg/L			04/23/24 00:41	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.23		0.050		mg/L		04/24/24 07:50	04/27/24 14:15	1
Calcium	170		2.0		mg/L		04/24/24 07:50	04/27/24 14:15	1
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 14:15	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	72	T5	20		ug/L		04/25/24 09:21	04/26/24 19:12	1

Client Sample ID: CH-CCR-FD05-0424

Lab Sample ID: 550-217326-15

Date Collected: 04/17/24 12:34
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 17:09	1
Arsenic	**0.0024**		0.00050		mg/L		04/22/24 09:12	04/25/24 17:09	1
Barium	**0.028**		0.00050		mg/L		04/22/24 09:12	04/25/24 17:09	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 17:09	1
Chromium	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 17:09	1
Cobalt	**0.0013**		0.00050		mg/L		04/22/24 09:12	04/25/24 17:09	1
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 17:09	1
Molybdenum	**0.0035**	**T5**	0.00050		mg/L		04/22/24 09:12	04/25/24 17:09	1
Selenium	**0.00065**		0.00050		mg/L		04/22/24 09:12	04/29/24 17:28	1
Thallium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 17:09	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 17:04	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1800**		20		mg/L			04/24/24 16:37	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			04/30/24 15:32	1
Temperature (SM 4500 H+ B)	**13.7**	**H5 T5**	0.1		Degrees C			04/30/24 15:32	1

Client Sample ID: CH-CCR-W123R-0424

Lab Sample ID: 550-217326-16

Date Collected: 04/18/24 16:24
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5600**	**D2**	200		mg/L			04/23/24 01:54	100
Fluoride	**3.4**		0.40		mg/L			04/23/24 01:36	1
Sulfate	**3400**	**D2**	200		mg/L			04/23/24 01:54	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**45**		0.050		mg/L		04/24/24 07:50	04/27/24 14:18	1
Calcium	**790**		2.0		mg/L		04/24/24 07:50	04/27/24 14:18	1
Iron	**0.12**		0.10		mg/L		04/24/24 07:50	04/27/24 14:18	1
Magnesium	**330**		2.0		mg/L		04/24/24 07:50	04/27/24 14:18	1
Manganese	**3.1**		0.010		mg/L		04/24/24 07:50	04/27/24 14:18	1
Potassium	**39**		0.50		mg/L		04/24/24 07:50	04/27/24 14:18	1
Sodium	**3900**		25		mg/L		04/24/24 07:50	04/29/24 18:55	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 14:18	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**580**	**T5**	400		ug/L		04/25/24 09:21	05/09/24 20:12	20

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		04/22/24 09:12	04/29/24 17:18	5
Arsenic	**0.0060**		0.00050		mg/L		04/22/24 09:12	04/25/24 17:11	1
Barium	**0.011**		0.0025		mg/L		04/22/24 09:12	04/29/24 17:18	5

Client Sample ID: CH-CCR-W123R-0424

Lab Sample ID: 550-217326-16

Date Collected: 04/18/24 16:24
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00050		mg/L		04/22/24 09:12	04/29/24 17:18	5
Chromium	**0.0022**		0.0010		mg/L		04/22/24 09:12	04/25/24 17:11	1
Cobalt	**0.0043**		0.00050		mg/L		04/22/24 09:12	04/25/24 17:11	1
Lead	ND		0.0025		mg/L		04/22/24 09:12	04/29/24 17:18	5
Molybdenum	**0.12**	**T5**	0.0025		mg/L		04/22/24 09:12	04/29/24 17:18	5
Selenium	**0.0033**		0.0025		mg/L		04/22/24 09:12	04/29/24 17:18	5
Thallium	ND		0.00050		mg/L		04/22/24 09:12	04/29/24 17:18	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 17:02	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**1.6**		0.050		mg/L			04/25/24 16:00	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			04/30/24 15:22	1
Alkalinity as CaCO3 (SM 2320B)	**48**		6.0		mg/L			04/30/24 14:30	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 14:30	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**48**		6.0		mg/L			04/30/24 14:30	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:30	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:30	1
Total Dissolved Solids (SM 2540C)	**15000**		200		mg/L			04/25/24 14:13	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			04/30/24 15:35	1
Temperature (SM 4500 H+ B)	**13.2**	**H5 T5**	0.1		Degrees C			04/30/24 15:35	1

Client Sample ID: CH-CCR-W123R-0424

Lab Sample ID: 550-217326-17

Date Collected: 04/18/24 16:24
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/24/24 07:50	04/27/24 14:22	1
Manganese	**3.1**		0.010		mg/L		04/24/24 07:50	04/27/24 14:22	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.0**		0.50		ug/L		04/22/24 09:12	04/25/24 17:13	1
Cobalt	**4.4**		0.50		ug/L		04/22/24 09:12	04/25/24 17:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.5**		0.50		mg/L			04/25/24 20:24	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.5**		0.50		mg/L			04/25/24 20:24	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.5**		0.50		mg/L			04/25/24 20:24	1

Client Sample ID: CH-CCR-W125-0424

Lab Sample ID: 550-217326-18

Date Collected: 04/18/24 15:44
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**680**	**D2**	20		mg/L			04/23/24 02:31	10
Fluoride	**0.51**		0.40		mg/L			04/23/24 02:13	1
Sulfate	**300**	**D2**	20		mg/L			04/23/24 02:31	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.20**		0.050		mg/L		04/24/24 07:50	04/27/24 14:25	1
Calcium	**120**		2.0		mg/L		04/24/24 07:50	04/27/24 14:25	1
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 14:25	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**33**	**T5**	20		ug/L		04/25/24 09:21	04/26/24 19:21	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:13	04/25/24 17:15	1
Arsenic	**0.0049**		0.00050		mg/L		04/22/24 09:13	04/25/24 17:15	1
Barium	**0.020**		0.00050		mg/L		04/22/24 09:13	04/25/24 17:15	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:13	04/25/24 17:15	1
Chromium	ND		0.0010		mg/L		04/22/24 09:13	04/25/24 17:15	1
Cobalt	**0.0018**		0.00050		mg/L		04/22/24 09:13	04/25/24 17:15	1
Lead	ND		0.00050		mg/L		04/22/24 09:13	04/25/24 17:15	1
Molybdenum	**0.0031**	**T5**	0.00050		mg/L		04/22/24 09:13	04/25/24 17:15	1
Selenium	**0.00055**		0.00050		mg/L		04/22/24 09:13	04/29/24 17:30	1
Thallium	ND		0.00010		mg/L		04/22/24 09:13	04/25/24 17:15	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 17:06	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1800**		20		mg/L			04/25/24 14:13	1
pH (SM 4500 H+ B)	**7.7**	**H5**	1.7		SU			04/30/24 15:36	1
Temperature (SM 4500 H+ B)	**13.4**	**H5 T5**	0.1		Degrees C			04/30/24 15:36	1

Client Sample ID: CH-CCR-W126R-0424

Lab Sample ID: 550-217326-19

Date Collected: 04/17/24 13:06
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6100**	**D2**	200		mg/L			04/23/24 03:08	100
Fluoride	**4.2**		0.40		mg/L			04/23/24 02:49	1
Sulfate	**3600**	**D2**	200		mg/L			04/23/24 03:08	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**47**		0.050		mg/L		04/24/24 07:50	04/27/24 14:29	1
Calcium	**790**		2.0		mg/L		04/24/24 07:50	04/27/24 14:29	1

Client Sample ID: CH-CCR-W126R-0424

Lab Sample ID: 550-217326-19

Date Collected: 04/17/24 13:06
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.32**		0.10		mg/L		04/24/24 07:50	04/27/24 14:29	1
Magnesium	**420**		2.0		mg/L		04/24/24 07:50	04/27/24 14:29	1
Manganese	**0.74**		0.010		mg/L		04/24/24 07:50	04/27/24 14:29	1
Potassium	**48**		0.50		mg/L		04/24/24 07:50	04/27/24 14:29	1
Sodium	**4500**		25		mg/L		04/24/24 07:50	04/29/24 18:59	50
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 14:29	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**660**	**T5**	400		ug/L		04/25/24 09:21	05/09/24 20:17	20

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0050		mg/L		04/22/24 09:13	04/29/24 17:20	5
Arsenic	**0.0045**		0.0025		mg/L		04/22/24 09:13	04/29/24 17:20	5
Barium	**0.010**		0.0025		mg/L		04/22/24 09:13	04/29/24 17:20	5
Cadmium	ND		0.00050		mg/L		04/22/24 09:13	04/29/24 17:20	5
Chromium	**0.028**		0.0050		mg/L		04/22/24 09:13	04/29/24 17:20	5
Cobalt	**0.0049**		0.0025		mg/L		04/22/24 09:13	04/29/24 17:20	5
Lead	ND		0.0025		mg/L		04/22/24 09:13	04/29/24 17:20	5
Molybdenum	**0.26**	**T5**	0.0025		mg/L		04/22/24 09:13	04/29/24 17:20	5
Selenium	**0.0048**		0.0025		mg/L		04/22/24 09:13	04/29/24 17:20	5
Thallium	ND		0.00050		mg/L		04/22/24 09:13	04/29/24 17:20	5

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 16:26	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.53**		0.050		mg/L			04/25/24 16:02	1
Nitrate Nitrite as N (EPA 353.2)	**0.10**		0.10		mg/L			04/30/24 15:34	1
Alkalinity as CaCO3 (SM 2320B)	**72**		6.0		mg/L			04/30/24 14:36	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			04/30/24 14:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**72**		6.0		mg/L			04/30/24 14:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:36	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			04/30/24 14:36	1
Total Dissolved Solids (SM 2540C)	**17000**		200		mg/L			04/24/24 16:37	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			04/30/24 15:37	1
Temperature (SM 4500 H+ B)	**14.2**	**H5 T5**	0.1		Degrees C			04/30/24 15:37	1

Client Sample ID: CH-CCR-W126R-0424

Lab Sample ID: 550-217326-20

Date Collected: 04/17/24 13:06
Matrix: Water
Date Received: 04/19/24 15:45

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.11**		0.10		mg/L		04/24/24 07:50	04/27/24 14:32	1
Manganese	**0.67**		0.010		mg/L		04/24/24 07:50	04/27/24 14:32	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-W126R-0424

Date Collected: 04/17/24 13:06
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-20

Matrix: Water

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		2.5		ug/L		04/22/24 09:13	04/29/24 17:22	5
Cobalt	4.8		2.5		ug/L		04/22/24 09:13	04/29/24 17:22	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	2.0		0.50		mg/L			04/29/24 20:22	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	2.0		0.50		mg/L			04/29/24 20:22	1
Dissolved Organic Carbon - Quad (SM 5310B)	2.0		0.50		mg/L			04/29/24 20:22	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-319563/2
Matrix: Water
Analysis Batch: 319563

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			04/22/24 12:22	1
Fluoride	ND		0.40		mg/L			04/22/24 12:22	1
Sulfate	ND		2.0		mg/L			04/22/24 12:22	1

Lab Sample ID: LCS 550-319563/5
Matrix: Water
Analysis Batch: 319563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.0		mg/L		95	90 - 110		
Fluoride			4.00	3.87		mg/L		97	90 - 110		
Sulfate			20.0	19.0		mg/L		95	90 - 110		

Lab Sample ID: LCSD 550-319563/6
Matrix: Water
Analysis Batch: 319563

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.2		mg/L		96	90 - 110	1	20
Fluoride			4.00	3.91		mg/L		98	90 - 110	1	20
Sulfate			20.0	19.1		mg/L		96	90 - 110	1	20

Lab Sample ID: 550-217325-A-3 MS
Matrix: Water
Analysis Batch: 319563

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	540	E2 M3	20.0	525	E2 M3	mg/L		-60	80 - 120		
Fluoride	ND		4.00	4.07		mg/L		94	80 - 120		
Sulfate	420	E2 M3	20.0	417	E2 M3	mg/L		-12	80 - 120		

Lab Sample ID: 550-217325-A-3 MSD
Matrix: Water
Analysis Batch: 319563

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	540	E2 M3	20.0	524	E2 M3	mg/L		-64	80 - 120	0	20
Fluoride	ND		4.00	4.16		mg/L		96	80 - 120	2	20
Sulfate	420	E2 M3	20.0	417	E2 M3	mg/L		-12	80 - 120	0	20

Lab Sample ID: MB 550-319630/2
Matrix: Water
Analysis Batch: 319630

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			04/23/24 12:49	1
Fluoride	ND		0.40		mg/L			04/23/24 12:49	1
Sulfate	ND		2.0		mg/L			04/23/24 12:49	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-319630/5
Matrix: Water
Analysis Batch: 319630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.6		mg/L		98	90 - 110		
Fluoride			4.00	3.97		mg/L		99	90 - 110		
Sulfate			20.0	19.5		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-319630/6
Matrix: Water
Analysis Batch: 319630

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.6		mg/L		98	90 - 110	0	20
Fluoride			4.00	3.97		mg/L		99	90 - 110	0	20
Sulfate			20.0	19.5		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-217325-A-3 MS ^100
Matrix: Water
Analysis Batch: 319630

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1500		2000	3570		mg/L		103	80 - 120		
Fluoride	ND		400	385		mg/L		96	80 - 120		
Sulfate	610		2000	2500		mg/L		95	80 - 120		

Lab Sample ID: 550-217325-A-3 MSD ^100
Matrix: Water
Analysis Batch: 319630

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1500		2000	3560		mg/L		103	80 - 120	0	20
Fluoride	ND		400	382		mg/L		95	80 - 120	1	20
Sulfate	610		2000	2490		mg/L		94	80 - 120	1	20

Lab Sample ID: MB 550-319716/2
Matrix: Water
Analysis Batch: 319716

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			04/24/24 12:42	1
Fluoride	ND		0.40		mg/L			04/24/24 12:42	1
Sulfate	ND		2.0		mg/L			04/24/24 12:42	1

Lab Sample ID: LCS 550-319716/5
Matrix: Water
Analysis Batch: 319716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.3		mg/L		96	90 - 110		
Fluoride			4.00	3.91		mg/L		98	90 - 110		
Sulfate			20.0	19.2		mg/L		96	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-319716/6
Matrix: Water
Analysis Batch: 319716

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.3		mg/L		96	90 - 110	0	20
Fluoride			4.00	3.91		mg/L		98	90 - 110	0	20
Sulfate			20.0	19.2		mg/L		96	90 - 110	0	20

Lab Sample ID: 550-217307-A-1 MS ^10
Matrix: Water
Analysis Batch: 319716

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	490	D2	200	699	D2	mg/L		102	80 - 120		
Fluoride	ND		40.0	39.1		mg/L		98	80 - 120		
Sulfate	42		200	233		mg/L		95	80 - 120		

Lab Sample ID: 550-217307-A-1 MSD ^10
Matrix: Water
Analysis Batch: 319716

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	490	D2	200	697	D2	mg/L		101	80 - 120	0	20
Fluoride	ND		40.0	39.2		mg/L		98	80 - 120	0	20
Sulfate	42		200	233		mg/L		95	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-319670/1-A
Matrix: Water
Analysis Batch: 319933

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319670

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		04/24/24 07:50	04/27/24 13:01	1
Calcium	ND		2.0		mg/L		04/24/24 07:50	04/27/24 13:01	1
Iron	ND		0.10		mg/L		04/24/24 07:50	04/27/24 13:01	1
Magnesium	ND		2.0		mg/L		04/24/24 07:50	04/27/24 13:01	1
Manganese	ND		0.010		mg/L		04/24/24 07:50	04/27/24 13:01	1
Potassium	ND		0.50		mg/L		04/24/24 07:50	04/27/24 13:01	1
Sodium	ND		0.50		mg/L		04/24/24 07:50	04/27/24 13:01	1
Beryllium	ND		0.0010		mg/L		04/24/24 07:50	04/27/24 13:01	1

Lab Sample ID: LCS 550-319670/2-A
Matrix: Water
Analysis Batch: 319933

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319670

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.03		mg/L		103	85 - 115		
Calcium			21.0	20.0		mg/L		95	85 - 115		
Iron			1.00	0.960		mg/L		96	85 - 115		
Magnesium			21.0	20.3		mg/L		97	85 - 115		
Manganese			1.00	0.934		mg/L		93	85 - 115		
Potassium			20.0	18.6		mg/L		93	85 - 115		
Sodium			20.0	19.3		mg/L		96	85 - 115		

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-319670/2-A
Matrix: Water
Analysis Batch: 319933

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319670

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	0.984		mg/L		98	85 - 115		

Lab Sample ID: LCSD 550-319670/3-A
Matrix: Water
Analysis Batch: 319933

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319670

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron			1.00	1.03		mg/L		103	85 - 115	1	20
Calcium			21.0	20.2		mg/L		96	85 - 115	1	20
Iron			1.00	0.959		mg/L		96	85 - 115	0	20
Magnesium			21.0	20.4		mg/L		97	85 - 115	0	20
Manganese			1.00	0.937		mg/L		94	85 - 115	0	20
Potassium			20.0	18.7		mg/L		94	85 - 115	1	20
Sodium			20.0	19.4		mg/L		97	85 - 115	1	20
Beryllium			1.00	0.995		mg/L		99	85 - 115	1	20

Lab Sample ID: 550-217326-3 MS
Matrix: Water
Analysis Batch: 319933

Client Sample ID: CH-CCR-M45A-0424
Prep Type: Total/NA
Prep Batch: 319670

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	1.1		1.00	2.07		mg/L		101	70 - 130		
Calcium	630	M3	21.0	585	M3	mg/L		-199	70 - 130		
Iron	5.6	M3	1.00	6.01	M3	mg/L		41	70 - 130		
Magnesium	120	M3	21.0	129	M3	mg/L		41	70 - 130		
Manganese	0.82		1.00	1.68		mg/L		86	70 - 130		
Potassium	14		20.0	33.1		mg/L		96	70 - 130		
Sodium	720	M3	20.0	667	M3	mg/L		-268	70 - 130		
Beryllium	ND		1.00	1.03		mg/L		103	70 - 130		

Lab Sample ID: 550-217326-3 MSD
Matrix: Water
Analysis Batch: 319933

Client Sample ID: CH-CCR-M45A-0424
Prep Type: Total/NA
Prep Batch: 319670

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.1		1.00	2.12		mg/L		105	70 - 130	2	20
Calcium	630	M3	21.0	603	M3	mg/L		-115	70 - 130	3	20
Iron	5.6	M3	1.00	6.21	M3	mg/L		61	70 - 130	3	20
Magnesium	120	M3	21.0	134	M3	mg/L		63	70 - 130	4	20
Manganese	0.82		1.00	1.72		mg/L		90	70 - 130	2	20
Potassium	14		20.0	34.3		mg/L		101	70 - 130	3	20
Sodium	720	M3	20.0	689	M3	mg/L		-157	70 - 130	3	20
Beryllium	ND		1.00	1.04		mg/L		104	70 - 130	2	20

Lab Sample ID: MB 280-650755/1-A
Matrix: Water
Analysis Batch: 651310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 650755

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20		ug/L		04/25/24 09:21	04/26/24 18:03	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: LCS 280-650755/2-A
Matrix: Water
Analysis Batch: 651310

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 650755

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			1000	1020		ug/L		102	90 - 112		

Lab Sample ID: 280-190414-M-1-B MS
Matrix: Water
Analysis Batch: 651627

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 650755

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium	79		1000	1090		ug/L		101	70 - 130		

Lab Sample ID: 280-190414-M-1-C MSD
Matrix: Water
Analysis Batch: 651627

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 650755

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	79		1000	1060		ug/L		99	70 - 130	2	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-319538/1-A
Matrix: Water
Analysis Batch: 319842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319538

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:20	1
Arsenic	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:20	1
Barium	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:20	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:20	1
Chromium	ND		0.0010		mg/L		04/22/24 09:12	04/25/24 16:20	1
Cobalt	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:20	1
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:20	1
Molybdenum	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:20	1
Selenium	ND		0.00050		mg/L		04/22/24 09:12	04/25/24 16:20	1
Thallium	ND		0.00010		mg/L		04/22/24 09:12	04/25/24 16:20	1

Lab Sample ID: MB 550-319538/1-A
Matrix: Water
Analysis Batch: 319992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319538

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/22/24 09:12	04/29/24 17:08	1
Arsenic	ND		0.00050		mg/L		04/22/24 09:12	04/29/24 17:08	1
Barium	ND		0.00050		mg/L		04/22/24 09:12	04/29/24 17:08	1
Cadmium	ND		0.00010		mg/L		04/22/24 09:12	04/29/24 17:08	1
Chromium	ND		0.0010		mg/L		04/22/24 09:12	04/29/24 17:08	1
Cobalt	ND		0.00050		mg/L		04/22/24 09:12	04/29/24 17:08	1
Lead	ND		0.00050		mg/L		04/22/24 09:12	04/29/24 17:08	1
Molybdenum	ND		0.00050		mg/L		04/22/24 09:12	04/29/24 17:08	1
Selenium	ND		0.00050		mg/L		04/22/24 09:12	04/29/24 17:08	1
Thallium	ND		0.00010		mg/L		04/22/24 09:12	04/29/24 17:08	1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 550-319538/2-A
Matrix: Water
Analysis Batch: 319842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319538

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.100		mg/L		100	85 - 115
Arsenic	0.100	0.0987		mg/L		99	85 - 115
Barium	0.100	0.0967		mg/L		97	85 - 115
Cadmium	0.100	0.0982		mg/L		98	85 - 115
Chromium	0.100	0.100		mg/L		100	85 - 115
Cobalt	0.100	0.102		mg/L		102	85 - 115
Lead	0.100	0.0996		mg/L		100	85 - 115
Molybdenum	0.100	0.0992		mg/L		99	85 - 115
Selenium	0.100	0.0971		mg/L		97	85 - 115
Thallium	0.100	0.106		mg/L		106	85 - 115

Lab Sample ID: LCS 550-319538/2-A
Matrix: Water
Analysis Batch: 319992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319538

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.0998		mg/L		100	85 - 115
Arsenic	0.100	0.0975		mg/L		97	85 - 115
Barium	0.100	0.0985		mg/L		98	85 - 115
Cadmium	0.100	0.0988		mg/L		99	85 - 115
Chromium	0.100	0.0994		mg/L		99	85 - 115
Cobalt	0.100	0.101		mg/L		101	85 - 115
Lead	0.100	0.107		mg/L		107	85 - 115
Molybdenum	0.100	0.0992		mg/L		99	85 - 115
Selenium	0.100	0.0954		mg/L		95	85 - 115
Thallium	0.100	0.108		mg/L		108	85 - 115

Lab Sample ID: LCSD 550-319538/3-A
Matrix: Water
Analysis Batch: 319842

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319538

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.0998		mg/L		100	85 - 115	0	20
Arsenic	0.100	0.0987		mg/L		99	85 - 115	0	20
Barium	0.100	0.0958		mg/L		96	85 - 115	1	20
Cadmium	0.100	0.0986		mg/L		99	85 - 115	0	20
Chromium	0.100	0.100		mg/L		100	85 - 115	0	20
Cobalt	0.100	0.103		mg/L		103	85 - 115	1	20
Lead	0.100	0.101		mg/L		101	85 - 115	1	20
Molybdenum	0.100	0.101		mg/L		101	85 - 115	1	20
Selenium	0.100	0.0963		mg/L		96	85 - 115	1	20
Thallium	0.100	0.107		mg/L		107	85 - 115	1	20

Lab Sample ID: LCSD 550-319538/3-A
Matrix: Water
Analysis Batch: 319992

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319538

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.0998		mg/L		100	85 - 115	0	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-319538/3-A
Matrix: Water
Analysis Batch: 319992

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319538

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic			0.100	0.0971		mg/L		97	85 - 115	0	20
Barium			0.100	0.0985		mg/L		98	85 - 115	0	20
Cadmium			0.100	0.0993		mg/L		99	85 - 115	1	20
Chromium			0.100	0.0997		mg/L		100	85 - 115	0	20
Cobalt			0.100	0.100		mg/L		100	85 - 115	1	20
Lead			0.100	0.111		mg/L		111	85 - 115	3	20
Molybdenum			0.100	0.100		mg/L		100	85 - 115	1	20
Selenium			0.100	0.0951		mg/L		95	85 - 115	0	20
Thallium			0.100	0.112		mg/L		112	85 - 115	4	20

Lab Sample ID: 550-217326-1 MS
Matrix: Water
Analysis Batch: 319842

Client Sample ID: CH-CCR-M43A-0424
Prep Type: Total/NA
Prep Batch: 319538

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		0.100	0.103		mg/L		103	70 - 130
Arsenic	0.0024		0.100	0.110		mg/L		108	70 - 130
Barium	0.016		0.100	0.130		mg/L		114	70 - 130
Cadmium	ND		0.100	0.0909		mg/L		91	70 - 130
Chromium	ND		0.100	0.104		mg/L		103	70 - 130
Cobalt	ND		0.100	0.0999		mg/L		100	70 - 130
Lead	ND		0.100	0.0910		mg/L		91	70 - 130
Molybdenum	0.0045	T5	0.100	0.111		mg/L		107	70 - 130
Selenium	0.00091		0.100	0.109		mg/L		108	70 - 130
Thallium	ND		0.100	0.0933		mg/L		93	70 - 130

Lab Sample ID: 550-217326-1 MSD
Matrix: Water
Analysis Batch: 319842

Client Sample ID: CH-CCR-M43A-0424
Prep Type: Total/NA
Prep Batch: 319538

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.104		mg/L		104	70 - 130	1	20
Arsenic	0.0024		0.100	0.111		mg/L		108	70 - 130	1	20
Barium	0.016		0.100	0.129		mg/L		113	70 - 130	1	20
Cadmium	ND		0.100	0.0911		mg/L		91	70 - 130	0	20
Chromium	ND		0.100	0.107		mg/L		106	70 - 130	3	20
Cobalt	ND		0.100	0.0996		mg/L		99	70 - 130	0	20
Lead	ND		0.100	0.0887		mg/L		89	70 - 130	3	20
Molybdenum	0.0045	T5	0.100	0.112		mg/L		107	70 - 130	1	20
Selenium	0.00091		0.100	0.110		mg/L		109	70 - 130	1	20
Thallium	ND		0.100	0.0907		mg/L		91	70 - 130	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-319692/1-A
Matrix: Water
Analysis Batch: 319722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319692

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/24/24 12:04	04/24/24 15:53	1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: LCS 550-319692/2-A
Matrix: Water
Analysis Batch: 319722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319692

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00455		mg/L		91	85 - 115		

Lab Sample ID: LCSD 550-319692/3-A
Matrix: Water
Analysis Batch: 319722

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319692

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00458		mg/L		92	85 - 115	1	20

Lab Sample ID: 550-217325-I-3-E MSD
Matrix: Water
Analysis Batch: 319722

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 319692

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00527		mg/L		105	70 - 130	8	20

Lab Sample ID: 550-217326-4 MS
Matrix: Water
Analysis Batch: 319722

Client Sample ID: CH-CCR-M46A-0424
Prep Type: Total/NA
Prep Batch: 319692

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00524		mg/L		105	70 - 130		

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-319889/153
Matrix: Water
Analysis Batch: 319889

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			04/25/24 15:39	1

Lab Sample ID: LCS 550-319889/154
Matrix: Water
Analysis Batch: 319889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	0.994		mg/L		99	90 - 110		

Lab Sample ID: LCSD 550-319889/155
Matrix: Water
Analysis Batch: 319889

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.973		mg/L		97	90 - 110	2	20

Method: 350.1 - Nitrogen, Ammonia (Low Level) (Continued)

Lab Sample ID: 550-217155-D-3 MS
Matrix: Water
Analysis Batch: 319889

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	0.77	M1	1.00	1.88	M1	mg/L		111	90 - 110

Lab Sample ID: 550-217155-D-3 MSD
Matrix: Water
Analysis Batch: 319889

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.77	M1	1.00	1.87		mg/L		110	90 - 110	1	20

Lab Sample ID: 550-217194-B-1 MS
Matrix: Water
Analysis Batch: 319889

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	9.1	M1 D2	10.0	20.7	D2 M1	mg/L		116	90 - 110

Lab Sample ID: 550-217194-B-1 MSD
Matrix: Water
Analysis Batch: 319889

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	9.1	M1 D2	10.0	18.8	D2	mg/L		97	90 - 110	10	20

Lab Sample ID: 550-217391-L-1 MS
Matrix: Water
Analysis Batch: 319889

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	0.58	M2	1.00	1.05	M2	mg/L		47	90 - 110

Lab Sample ID: 550-217391-L-1 MSD
Matrix: Water
Analysis Batch: 319889

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.58	M2	1.00	1.03	M2	mg/L		45	90 - 110	2	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-651585/57
Matrix: Water
Analysis Batch: 651585

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			04/30/24 14:58	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 280-651585/55
Matrix: Water
Analysis Batch: 651585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			1.00	0.964		mg/L		96	90 - 110		

Lab Sample ID: LCSD 280-651585/56
Matrix: Water
Analysis Batch: 651585

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			1.00	0.976		mg/L		98	90 - 110	1	10

Lab Sample ID: 550-217326-19 MS
Matrix: Water
Analysis Batch: 651585

Client Sample ID: CH-CCR-W126R-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	0.10		2.00	2.12		mg/L		101	90 - 110		

Lab Sample ID: 550-217326-19 MSD
Matrix: Water
Analysis Batch: 651585

Client Sample ID: CH-CCR-W126R-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10		2.00	2.11		mg/L		101	90 - 110	0	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-320078/4
Matrix: Water
Analysis Batch: 320078

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			04/30/24 13:13	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			04/30/24 13:13	1

Lab Sample ID: LCS 550-320078/3
Matrix: Water
Analysis Batch: 320078

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	242		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320078/17
Matrix: Water
Analysis Batch: 320078

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	238		mg/L		95	90 - 110	2	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 550-217060-I-1 DU
Matrix: Water
Analysis Batch: 320078

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	470			465		mg/L				0.1	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	470			465		mg/L				0.1	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-319720/1
Matrix: Water
Analysis Batch: 319720

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			04/24/24 16:37	1

Lab Sample ID: LCS 550-319720/2
Matrix: Water
Analysis Batch: 319720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	974		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-319720/3
Matrix: Water
Analysis Batch: 319720

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1000		mg/L		100	90 - 110	NaN	10

Lab Sample ID: 550-217325-A-3 DU
Matrix: Water
Analysis Batch: 319720

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	3600			4000	R8	mg/L				12	10

Lab Sample ID: MB 550-319784/1
Matrix: Water
Analysis Batch: 319784

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			04/25/24 14:13	1

Lab Sample ID: LCS 550-319784/2
Matrix: Water
Analysis Batch: 319784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	970		mg/L		97	90 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 550-319784/3
Matrix: Water
Analysis Batch: 319784

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	988		mg/L		99	90 - 110	2	10

Lab Sample ID: 550-217212-K-2 DU
Matrix: Water
Analysis Batch: 319784

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	900			850		mg/L				6	10

Lab Sample ID: 550-217326-8 DU
Matrix: Water
Analysis Batch: 319784

Client Sample ID: CH-CCR-M51A-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	13000			12300		mg/L				5	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-320047/13
Matrix: Water
Analysis Batch: 320047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.9	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-320047/25
Matrix: Water
Analysis Batch: 320047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.9	98.5 - 101.5		

Lab Sample ID: 550-217326-15 DU
Matrix: Water
Analysis Batch: 320047

Client Sample ID: CH-CCR-FD05-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.6	H5		7.6		SU				0.4	5
Temperature	13.7	H5 T5		13.0		Degrees C				5	

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 550-319849/6
Matrix: Water
Analysis Batch: 319849

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			04/25/24 17:04	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			04/25/24 17:04	1

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: MB 550-319849/6
Matrix: Water
Analysis Batch: 319849

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			04/25/24 17:04	1

Lab Sample ID: MB 550-320043/6
Matrix: Water
Analysis Batch: 320043

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			04/29/24 14:11	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			04/29/24 14:11	1
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			04/29/24 14:11	1

HPLC/IC

Analysis Batch: 319563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	300.0	
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	300.0	
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	300.0	
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	300.0	
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	300.0	
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	300.0	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	300.0	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	300.0	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	300.0	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	300.0	
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	300.0	
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	300.0	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	300.0	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	300.0	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	300.0	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	300.0	
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	300.0	
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	300.0	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	300.0	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	300.0	
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	300.0	
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	300.0	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	300.0	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	300.0	
MB 550-319563/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319563/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319563/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217325-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
550-217325-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 319630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	300.0	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	300.0	
MB 550-319630/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319630/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319630/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217325-A-3 MS ^100	Matrix Spike	Total/NA	Water	300.0	
550-217325-A-3 MSD ^100	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 319716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	300.0	
MB 550-319716/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319716/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319716/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217307-A-1 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-217307-A-1 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 319538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	200.8	
550-217326-2	CH-CCR-M43A-0424	Dissolved	Water	200.8	
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	200.8	
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	200.8	
550-217326-5	CH-CCR-M46A-0424	Dissolved	Water	200.8	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	200.8	
550-217326-7	CH-CCR-M50A-0424	Dissolved	Water	200.8	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	200.8	
550-217326-9	CH-CCR-M51A-0424	Dissolved	Water	200.8	
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	200.8	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	200.8	
550-217326-12	CH-CCR-M64A-0424	Dissolved	Water	200.8	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	200.8	
550-217326-14	CH-CCR-MW66A-0424	Dissolved	Water	200.8	
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	200.8	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	200.8	
550-217326-17	CH-CCR-W123R-0424	Dissolved	Water	200.8	
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	200.8	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	200.8	
550-217326-20	CH-CCR-W126R-0424	Dissolved	Water	200.8	
MB 550-319538/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-319538/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-319538/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-217326-1 MS	CH-CCR-M43A-0424	Total/NA	Water	200.8	
550-217326-1 MSD	CH-CCR-M43A-0424	Total/NA	Water	200.8	

Prep Batch: 319670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	200.7	
550-217326-2	CH-CCR-M43A-0424	Dissolved	Water	200.7	
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	200.7	
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	200.7	
550-217326-5	CH-CCR-M46A-0424	Dissolved	Water	200.7	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	200.7	
550-217326-7	CH-CCR-M50A-0424	Dissolved	Water	200.7	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	200.7	
550-217326-9	CH-CCR-M51A-0424	Dissolved	Water	200.7	
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	200.7	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	200.7	
550-217326-12	CH-CCR-M64A-0424	Dissolved	Water	200.7	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	200.7	
550-217326-14	CH-CCR-MW66A-0424	Dissolved	Water	200.7	
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	200.7	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	200.7	
550-217326-17	CH-CCR-W123R-0424	Dissolved	Water	200.7	
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	200.7	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	200.7	
550-217326-20	CH-CCR-W126R-0424	Dissolved	Water	200.7	
MB 550-319670/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-319670/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-319670/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 319670 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-3 MS	CH-CCR-M45A-0424	Total/NA	Water	200.7	
550-217326-3 MSD	CH-CCR-M45A-0424	Total/NA	Water	200.7	

Prep Batch: 319692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	245.1	
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	245.1	
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	245.1	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	245.1	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	245.1	
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	245.1	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	245.1	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	245.1	
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	245.1	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	245.1	
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	245.1	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	245.1	
MB 550-319692/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-319692/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-319692/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-217325-I-3-E MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
550-217326-4 MS	CH-CCR-M46A-0424	Total/NA	Water	245.1	

Analysis Batch: 319722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	245.1	319692
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	245.1	319692
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	245.1	319692
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	245.1	319692
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	245.1	319692
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	245.1	319692
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	245.1	319692
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	245.1	319692
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	245.1	319692
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	245.1	319692
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	245.1	319692
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	245.1	319692
MB 550-319692/1-A	Method Blank	Total/NA	Water	245.1	319692
LCS 550-319692/2-A	Lab Control Sample	Total/NA	Water	245.1	319692
LCSD 550-319692/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	319692
550-217325-I-3-E MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	319692
550-217326-4 MS	CH-CCR-M46A-0424	Total/NA	Water	245.1	319692

Analysis Batch: 319842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	200.8 LL	319538
550-217326-2	CH-CCR-M43A-0424	Dissolved	Water	200.8 LL	319538
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	200.8 LL	319538
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	200.8 LL	319538
550-217326-5	CH-CCR-M46A-0424	Dissolved	Water	200.8 LL	319538
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	200.8 LL	319538

Metals (Continued)

Analysis Batch: 319842 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-7	CH-CCR-M50A-0424	Dissolved	Water	200.8 LL	319538
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	200.8 LL	319538
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	200.8 LL	319538
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	200.8 LL	319538
550-217326-12	CH-CCR-M64A-0424	Dissolved	Water	200.8 LL	319538
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	200.8 LL	319538
550-217326-14	CH-CCR-MW66A-0424	Dissolved	Water	200.8 LL	319538
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	200.8 LL	319538
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	200.8 LL	319538
550-217326-17	CH-CCR-W123R-0424	Dissolved	Water	200.8 LL	319538
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	200.8 LL	319538
MB 550-319538/1-A	Method Blank	Total/NA	Water	200.8 LL	319538
LCS 550-319538/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	319538
LCSD 550-319538/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	319538
550-217326-1 MS	CH-CCR-M43A-0424	Total/NA	Water	200.8 LL	319538
550-217326-1 MSD	CH-CCR-M43A-0424	Total/NA	Water	200.8 LL	319538

Analysis Batch: 319933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-2	CH-CCR-M43A-0424	Dissolved	Water	200.7	319670
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-5	CH-CCR-M46A-0424	Dissolved	Water	200.7	319670
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-7	CH-CCR-M50A-0424	Dissolved	Water	200.7	319670
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-9	CH-CCR-M51A-0424	Dissolved	Water	200.7	319670
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-12	CH-CCR-M64A-0424	Dissolved	Water	200.7	319670
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-14	CH-CCR-MW66A-0424	Dissolved	Water	200.7	319670
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-17	CH-CCR-W123R-0424	Dissolved	Water	200.7	319670
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-20	CH-CCR-W126R-0424	Dissolved	Water	200.7	319670
MB 550-319670/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319670
LCS 550-319670/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319670
LCSD 550-319670/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-3 MS	CH-CCR-M45A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-3 MSD	CH-CCR-M45A-0424	Total/NA	Water	200.7 Rev 4.4	319670

Analysis Batch: 319992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	200.8 LL	319538
550-217326-9	CH-CCR-M51A-0424	Dissolved	Water	200.8 LL	319538
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	200.8 LL	319538
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	200.8 LL	319538

Metals (Continued)

Analysis Batch: 319992 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	200.8 LL	319538
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	200.8 LL	319538
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	200.8 LL	319538
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	200.8 LL	319538
550-217326-20	CH-CCR-W126R-0424	Dissolved	Water	200.8 LL	319538
MB 550-319538/1-A	Method Blank	Total/NA	Water	200.8 LL	319538
LCS 550-319538/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	319538
LCSD 550-319538/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	319538

Analysis Batch: 320080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	200.7 Rev 4.4	319670
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	200.7 Rev 4.4	319670

Prep Batch: 650755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total Recoverable	Water	200.7	
550-217326-3	CH-CCR-M45A-0424	Total Recoverable	Water	200.7	
550-217326-4	CH-CCR-M46A-0424	Total Recoverable	Water	200.7	
550-217326-6	CH-CCR-M50A-0424	Total Recoverable	Water	200.7	
550-217326-8	CH-CCR-M51A-0424	Total Recoverable	Water	200.7	
550-217326-10	CH-CCR-M63A-0424	Total Recoverable	Water	200.7	
550-217326-11	CH-CCR-M64A-0424	Total Recoverable	Water	200.7	
550-217326-13	CH-CCR-MW66A-0424	Total Recoverable	Water	200.7	
550-217326-15	CH-CCR-FD05-0424	Total Recoverable	Water	200.7	
550-217326-16	CH-CCR-W123R-0424	Total Recoverable	Water	200.7	
550-217326-18	CH-CCR-W125-0424	Total Recoverable	Water	200.7	
550-217326-19	CH-CCR-W126R-0424	Total Recoverable	Water	200.7	
MB 280-650755/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-650755/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
280-190414-M-1-B MS	Matrix Spike	Total Recoverable	Water	200.7	
280-190414-M-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7	

Analysis Batch: 651310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-3	CH-CCR-M45A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-6	CH-CCR-M50A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-10	CH-CCR-M63A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-15	CH-CCR-FD05-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-18	CH-CCR-W125-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
MB 280-650755/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	650755
LCS 280-650755/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	650755

Metals

Analysis Batch: 651627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190414-M-1-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	650755
280-190414-M-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	650755

Analysis Batch: 652939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-4	CH-CCR-M46A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-8	CH-CCR-M51A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-11	CH-CCR-M64A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-13	CH-CCR-MW66A-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-16	CH-CCR-W123R-0424	Total Recoverable	Water	200.7 Rev 4.4	650755
550-217326-19	CH-CCR-W126R-0424	Total Recoverable	Water	200.7 Rev 4.4	650755

General Chemistry

Analysis Batch: 319720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	SM 2540C	
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	SM 2540C	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	SM 2540C	
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	SM 2540C	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	SM 2540C	
MB 550-319720/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-319720/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-319720/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217325-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 319784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	SM 2540C	
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	SM 2540C	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	SM 2540C	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	SM 2540C	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	SM 2540C	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	SM 2540C	
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	SM 2540C	
MB 550-319784/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-319784/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-319784/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217212-K-2 DU	Duplicate	Total/NA	Water	SM 2540C	
550-217326-8 DU	CH-CCR-M51A-0424	Total/NA	Water	SM 2540C	

Analysis Batch: 319849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-2	CH-CCR-M43A-0424	Dissolved	Water	SM 5310B	
550-217326-5	CH-CCR-M46A-0424	Dissolved	Water	SM 5310B	
550-217326-7	CH-CCR-M50A-0424	Dissolved	Water	SM 5310B	
550-217326-9	CH-CCR-M51A-0424	Dissolved	Water	SM 5310B	
550-217326-12	CH-CCR-M64A-0424	Dissolved	Water	SM 5310B	
550-217326-14	CH-CCR-MW66A-0424	Dissolved	Water	SM 5310B	
550-217326-17	CH-CCR-W123R-0424	Dissolved	Water	SM 5310B	
MB 550-319849/6	Method Blank	Dissolved	Water	SM 5310B	

General Chemistry (Continued)

Analysis Batch: 319849 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-319849/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-319849/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-217325-B-2 MS	Matrix Spike	Dissolved	Water	SM 5310B	
550-217325-B-2 MSD	Matrix Spike Duplicate	Dissolved	Water	SM 5310B	

Analysis Batch: 319889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	350.1	
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	350.1	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	350.1	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	350.1	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	350.1	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	350.1	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	350.1	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	350.1	
MB 550-319889/153	Method Blank	Total/NA	Water	350.1	
LCS 550-319889/154	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-319889/155	Lab Control Sample Dup	Total/NA	Water	350.1	
550-217155-D-3 MS	Matrix Spike	Total/NA	Water	350.1	
550-217155-D-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
550-217194-B-1 MS	Matrix Spike	Total/NA	Water	350.1	
550-217194-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
550-217391-L-1 MS	Matrix Spike	Total/NA	Water	350.1	
550-217391-L-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 320043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-20	CH-CCR-W126R-0424	Dissolved	Water	SM 5310B	
MB 550-320043/6	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-320043/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-320043/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	

Analysis Batch: 320047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-3	CH-CCR-M45A-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-10	CH-CCR-M63A-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-15	CH-CCR-FD05-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-18	CH-CCR-W125-0424	Total/NA	Water	SM 4500 H+ B	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320047/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320047/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-217326-15 DU	CH-CCR-FD05-0424	Total/NA	Water	SM 4500 H+ B	

General Chemistry

Analysis Batch: 320078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	SM 2320B	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	SM 2320B	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	SM 2320B	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	SM 2320B	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	SM 2320B	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	SM 2320B	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	SM 2320B	
MB 550-320078/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320078/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320078/17	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217060-I-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 651585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217326-1	CH-CCR-M43A-0424	Total/NA	Water	353.2	
550-217326-4	CH-CCR-M46A-0424	Total/NA	Water	353.2	
550-217326-6	CH-CCR-M50A-0424	Total/NA	Water	353.2	
550-217326-8	CH-CCR-M51A-0424	Total/NA	Water	353.2	
550-217326-11	CH-CCR-M64A-0424	Total/NA	Water	353.2	
550-217326-13	CH-CCR-MW66A-0424	Total/NA	Water	353.2	
550-217326-16	CH-CCR-W123R-0424	Total/NA	Water	353.2	
550-217326-19	CH-CCR-W126R-0424	Total/NA	Water	353.2	
MB 280-651585/57	Method Blank	Total/NA	Water	353.2	
LCS 280-651585/55	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-651585/56	Lab Control Sample Dup	Total/NA	Water	353.2	
550-217326-19 MS	CH-CCR-W126R-0424	Total/NA	Water	353.2	
550-217326-19 MSD	CH-CCR-W126R-0424	Total/NA	Water	353.2	

Client Sample ID: CH-CCR-M43A-0424
Date Collected: 04/18/24 10:09
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 18:51
Total/NA	Analysis	300.0		50	319563	MMH	EET PHX	04/22/24 19:09
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		1	651310	ADL	EET DEN	04/26/24 18:16
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 13:25
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:35
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 16:34
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:36
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 15:54
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:10
Total/NA	Analysis	SM 2540C		1	319784	GRW	EET PHX	04/25/24 14:13 - 04/30/24 16:54 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:16

Client Sample ID: CH-CCR-M43A-0424
Date Collected: 04/18/24 10:09
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Dissolved	Analysis	200.7		1	319933	GLW	EET PHX	04/27/24 13:31
Dissolved	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Dissolved	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 16:36
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 18:59

Client Sample ID: CH-CCR-M45A-0424
Date Collected: 04/18/24 09:05
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 19:28
Total/NA	Analysis	300.0		50	319563	MMH	EET PHX	04/22/24 19:46
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		1	651310	ADL	EET DEN	04/26/24 18:21
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 13:18
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 16:38
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:38
Total/NA	Analysis	SM 2540C		1	319784	GRW	EET PHX	04/25/24 14:13 - 04/30/24 16:54 [1]

Client Sample ID: CH-CCR-M45A-0424

Lab Sample ID: 550-217326-3

Date Collected: 04/18/24 09:05
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:17

Client Sample ID: CH-CCR-M46A-0424

Lab Sample ID: 550-217326-4

Date Collected: 04/17/24 15:35
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 20:05
Total/NA	Analysis	300.0		50	319563	MMH	EET PHX	04/22/24 20:23
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		10	652939	ADL	EET DEN	05/09/24 19:49
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 13:21
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:31
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 16:40
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:40
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 16:27
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:12
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 13:55
Total/NA	Analysis	SM 2540C		1	319720	GRW	EET PHX	04/24/24 16:37 - 04/29/24 03:30 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:19

Client Sample ID: CH-CCR-M46A-0424

Lab Sample ID: 550-217326-5

Date Collected: 04/17/24 15:35
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Dissolved	Analysis	200.7		1	319933	GLW	EET PHX	04/27/24 13:34
Dissolved	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Dissolved	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 16:42
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 19:12

Client Sample ID: CH-CCR-M50A-0424

Lab Sample ID: 550-217326-6

Date Collected: 04/18/24 14:56
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 20:41
Total/NA	Analysis	300.0		50	319563	MMH	EET PHX	04/22/24 21:00

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-M50A-0424
Date Collected: 04/18/24 14:56
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		1	651310	ADL	EET DEN	04/26/24 18:48
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 13:38
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:38
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 16:44
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:34
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 15:56
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:14
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 14:02
Total/NA	Analysis	SM 2540C		1	319784	GRW	EET PHX	04/25/24 14:13 - 04/30/24 16:54 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:20

Client Sample ID: CH-CCR-M50A-0424
Date Collected: 04/18/24 14:56
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Dissolved	Analysis	200.7		1	319933	GLW	EET PHX	04/27/24 13:41
Dissolved	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Dissolved	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 16:46
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 19:24

Client Sample ID: CH-CCR-M51A-0424
Date Collected: 04/18/24 14:19
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		100	319630	MMH	EET PHX	04/23/24 16:59
Total/NA	Analysis	300.0		100	319630	MMH	EET PHX	04/23/24 17:49
Total/NA	Analysis	300.0		100	319716	MMH	EET PHX	04/24/24 21:03
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 21:55
Total/NA	Analysis	300.0		50	319563	MMH	EET PHX	04/22/24 22:13
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		10	652939	ADL	EET DEN	05/09/24 19:55
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 13:44
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:42

Client Sample ID: CH-CCR-M51A-0424

Date Collected: 04/18/24 14:19
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 16:48
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		5	319992	DSJ	EET PHX	04/29/24 17:14
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:53
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 15:57
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:16
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 14:09
Total/NA	Analysis	SM 2540C		1	319784	GRW	EET PHX	04/25/24 14:13 - 04/30/24 16:54 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:21

Client Sample ID: CH-CCR-M51A-0424

Date Collected: 04/18/24 14:19
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Dissolved	Analysis	200.7		1	319933	GLW	EET PHX	04/27/24 13:48
Dissolved	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Dissolved	Analysis	200.8 LL		5	319992	DSJ	EET PHX	04/29/24 17:16
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 19:39

Client Sample ID: CH-CCR-M63A-0424

Date Collected: 04/17/24 11:21
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 22:32
Total/NA	Analysis	300.0		20	319563	MMH	EET PHX	04/22/24 22:50
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		1	651310	ADL	EET DEN	04/26/24 18:57
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 13:51
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 16:53
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:55
Total/NA	Analysis	SM 2540C		1	319720	GRW	EET PHX	04/24/24 16:37 - 04/29/24 03:30 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:22

Client Sample ID: CH-CCR-M64A-0424

Lab Sample ID: 550-217326-11

Date Collected: 04/18/24 13:13
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 23:09
Total/NA	Analysis	300.0		50	319563	MMH	EET PHX	04/22/24 23:27
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		20	652939	ADL	EET DEN	05/09/24 20:01
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 14:01
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:48
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 17:00
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319992	DSJ	EET PHX	04/29/24 17:24
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 17:00
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 15:59
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:18
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 14:14
Total/NA	Analysis	SM 2540C		1	319784	GRW	EET PHX	04/25/24 14:13 - 04/30/24 16:54 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:24

Client Sample ID: CH-CCR-M64A-0424

Lab Sample ID: 550-217326-12

Date Collected: 04/18/24 13:13
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Dissolved	Analysis	200.7		1	319933	GLW	EET PHX	04/27/24 14:05
Dissolved	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Dissolved	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 17:03
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 19:56

Client Sample ID: CH-CCR-MW66A-0424

Lab Sample ID: 550-217326-13

Date Collected: 04/17/24 14:06
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/22/24 23:45
Total/NA	Analysis	300.0		50	319563	MMH	EET PHX	04/23/24 00:04
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		10	652939	ADL	EET DEN	05/09/24 20:07
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 14:08
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:52

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-MW66A-0424
Date Collected: 04/17/24 14:06
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 17:05
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319992	DSJ	EET PHX	04/29/24 17:26
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:57
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 16:47
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:20
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 14:24
Total/NA	Analysis	SM 2540C		1	319720	GRW	EET PHX	04/24/24 16:37 - 04/29/24 03:30 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:26

Client Sample ID: CH-CCR-MW66A-0424
Date Collected: 04/17/24 14:06
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Dissolved	Analysis	200.7		1	319933	GLW	EET PHX	04/27/24 14:12
Dissolved	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Dissolved	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 17:07
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 20:09

Client Sample ID: CH-CCR-FD05-0424
Date Collected: 04/17/24 12:34
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/23/24 00:22
Total/NA	Analysis	300.0		10	319563	MMH	EET PHX	04/23/24 00:41
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		1	651310	ADL	EET DEN	04/26/24 19:12
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 14:15
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 17:09
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319992	DSJ	EET PHX	04/29/24 17:28
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 17:04
Total/NA	Analysis	SM 2540C		1	319720	GRW	EET PHX	04/24/24 16:37 - 04/29/24 03:30 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:32

Client Sample ID: CH-CCR-W123R-0424

Lab Sample ID: 550-217326-16

Date Collected: 04/18/24 16:24
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/23/24 01:36
Total/NA	Analysis	300.0		100	319563	MMH	EET PHX	04/23/24 01:54
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		20	652939	ADL	EET DEN	05/09/24 20:12
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 14:18
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:55
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 17:11
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Total/NA	Analysis	200.8 LL		5	319992	DSJ	EET PHX	04/29/24 17:18
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 17:02
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 16:00
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:22
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 14:30
Total/NA	Analysis	SM 2540C		1	319784	GRW	EET PHX	04/25/24 14:13 - 04/30/24 16:54 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:35

Client Sample ID: CH-CCR-W123R-0424

Lab Sample ID: 550-217326-17

Date Collected: 04/18/24 16:24
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Dissolved	Analysis	200.7		1	319933	GLW	EET PHX	04/27/24 14:22
Dissolved	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:12
Dissolved	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 17:13
Dissolved	Analysis	SM 5310B		1	319849	AKS	EET PHX	04/25/24 20:24

Client Sample ID: CH-CCR-W125-0424

Lab Sample ID: 550-217326-18

Date Collected: 04/18/24 15:44
Matrix: Water
Date Received: 04/19/24 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/23/24 02:13
Total/NA	Analysis	300.0		10	319563	MMH	EET PHX	04/23/24 02:31
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		1	651310	ADL	EET DEN	04/26/24 19:21
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 14:25
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:13
Total/NA	Analysis	200.8 LL		1	319842	DSJ	EET PHX	04/25/24 17:15

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Client Sample ID: CH-CCR-W125-0424
Date Collected: 04/18/24 15:44
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:13
Total/NA	Analysis	200.8 LL		1	319992	DSJ	EET PHX	04/29/24 17:30
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 17:06
Total/NA	Analysis	SM 2540C		1	319784	GRW	EET PHX	04/25/24 14:13 - 04/30/24 16:54 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:36

Client Sample ID: CH-CCR-W126R-0424
Date Collected: 04/17/24 13:06
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319563	MMH	EET PHX	04/23/24 02:49
Total/NA	Analysis	300.0		100	319563	MMH	EET PHX	04/23/24 03:08
Total Recoverable	Prep	200.7			650755	AES	EET DEN	04/25/24 09:21
Total Recoverable	Analysis	200.7 Rev 4.4		20	652939	ADL	EET DEN	05/09/24 20:17
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		1	319933	GLW	EET PHX	04/27/24 14:29
Total/NA	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Total/NA	Analysis	200.7 Rev 4.4		50	320080	GLW	EET PHX	04/29/24 18:59
Total/NA	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:13
Total/NA	Analysis	200.8 LL		5	319992	DSJ	EET PHX	04/29/24 17:20
Total/NA	Prep	245.1			319692	HHL	EET PHX	04/24/24 12:04
Total/NA	Analysis	245.1		1	319722	HHL	EET PHX	04/24/24 16:26
Total/NA	Analysis	350.1		1	319889	KMS	EET PHX	04/25/24 16:02
Total/NA	Analysis	353.2		1	651585	BCR	EET DEN	04/30/24 15:34
Total/NA	Analysis	SM 2320B		1	320078	ELN	EET PHX	04/30/24 14:36
Total/NA	Analysis	SM 2540C		1	319720	GRW	EET PHX	04/24/24 16:37 - 04/29/24 03:30 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320047	ELN	EET PHX	04/30/24 15:37

Client Sample ID: CH-CCR-W126R-0424
Date Collected: 04/17/24 13:06
Date Received: 04/19/24 15:45

Lab Sample ID: 550-217326-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319670	SGO	EET PHX	04/24/24 07:50
Dissolved	Analysis	200.7		1	319933	GLW	EET PHX	04/27/24 14:32
Dissolved	Prep	200.8			319538	SGO	EET PHX	04/22/24 09:13
Dissolved	Analysis	200.8 LL		5	319992	DSJ	EET PHX	04/29/24 17:22
Dissolved	Analysis	SM 5310B		1	320043	AKS	EET PHX	04/29/24 20:22

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8 LL	200.8	Water	Molybdenum
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Lithium

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217326-1
SDG: APS Cholla Power Plant (FAP)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7	Dissolved Metals by ICP	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
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Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

217326

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	**Natalie Chrisman**	**Pam Norris (505) 598-8781**	**Date:**
Arizona Public Service	(602) 250-3608	**Lab Contact: Danielle Roberts**	**Carrier:**
4801 Cholla Lake Rd	**Analysis Turnaround Time**		
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS		
(928) 587-0319 Phone	TAT if different from Below _____		
FAX	☑ 2 weeks		
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Cholla Power Plant (FAP)	☐ 2 days		
PO #: 300590307	☐ 1 day		

COC No: 1 of 2 COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 - Alk. as		Sample Specific Notes:
CH-CCR-M43A-0424 -01 +02	04/18/24	1009	G	W	10	Y		X	X			X	X	X	X	X	X	X	X	X	X			Low flow
CH-CCR-M45A-0424 -03	04/18/24	905	G	W	3	N		X			X	X		X		X	X	X						
CH-CCR-M46A-0424 -04 +05	04/17/24	1535	G	W	10	Y		X		X		X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-M50A-0424 -06 +07	04/18/24	1456	G	W	10	Y		X		X		X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-M51A-0424 -08 +09	04/18/24	1419	G	W	10	Y		X		X		X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-M63A-0424 -10	04/17/24	1121	G	W	3	N		X			X	X		X		X	X	X						"
CH-CCR-M64A-0424 -11 +12	04/18/24	1313	G	W	10	Y		X		X		X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-MW66A-0424 -13 +14	04/17/24	1406	G	W	10	Y		X		X		X	X	X	X	X	X	X	X	X	X	X		"
CH-CCR-FD05-0424 -15	04/17/24	1234	G	W	3	N		X			X	X		X		X	X	X						

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

	1	4	4	4	4	4	4	4	4	1	1	2	3					

550-217326 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company: WSP	Date/Time: 9/19/24 1545	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: ~~EETA-PHX~~	Date/Time: 9/19/24 1545

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

2-8°C / 2-0°C / 4.4°C ICE

5/13/2024

TestAmerica Phoenix
4625 E Cotton Center Blvd
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Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 217326

TestAmerica Laboratories, Inc.

Client Contact	**Natalie Chrisman**	**Pam Norris (505) 598-8781**	**Date:**
Arizona Public Service	(602) 250-3608	**Lab Contact: Danielle Roberts**	**Carrier:**
4801 Cholla Lake Rd	**Analysis Turnaround Time**		
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS		
(928) 587-0319 Phone	TAT if different from Below _____		
FAX	☑ 2 weeks		
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Cholla Power Plant (FAP)	☐ 2 days		
PO #: 300590307	☐ 1 day		

COC No: 2 of 2 COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-W123R-0424 16 + 17	04/18/24	1624	G	W	10	Y		X	X		X	X	X	X	X	X	X		X	X	X		X	Low Flow
CH-CCR-W125-0424 - 18	04/18/24	1544	G	W	3	N		X		X	X		X		X	X	X							"
CH-CCR-W126R-0424 -19 + 20	04/17/24	1306	G	W	10	Y		X	X		X	X	X	X	X	X	X		X	X	X		X	"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	1	1	2	2	3	3	1	1	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

4.4°C | 2.0°C | 2.8°C ICE ICE

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: WSP	Date/Time: 4/19/24 1545	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TEKPHX	Date/Time: 4/19/24 1545

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: **CCR**

TestAmerica Laboratories, Inc.

Client Contact	**Natalie Chrisman**	**Pam Norris (505) 598-8781**	**Date:**	COC No:
Arizona Public Service	**(602) 250-3608**	**Lab Contact: Danielle Roberts**	**Carrier:**	___1___ of ___3___ COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)		Sample Specific Notes:
CH-CCR-M43A-0424	04/18/24	10:09	G	W	5	Y	N						X		X				X					Low Flow
CH-CCR-M43A-0424	04/18/24	10:09	G	W	5	N	N	X	X			X		X		X	X	X		X	X			"
CH-CCR-M45A-0424	04/18/24	9:05	G	W	3	N	N	X			X	X		X		X	X	X						"
CH-CCR-M46A-0424	04/17/24	15:35	G	W	5	Y	N						X		X				X					"
CH-CCR-M46A-0424	04/17/24	15:35	G	W	5	N	N	X		X		X		X		X	X	X		X	X	X		"
CH-CCR-M50A-0424	04/18/24	14:56	G	W	5	Y	N						X		X				X					"
CH-CCR-M50A-0424	04/18/24	14:56	G	W	5	N	N	X		X		X		X		X	X	X		X	X	X		"
CH-CCR-M51A-0424	04/18/24	14:19	G	W	5	Y	N						X		X				X					"
CH-CCR-M51A-0424	04/18/24	14:19	G	W	5	N	N	X		X		X		X		X	X	X		X	X	X		"
CH-CCR-M63A-0424	04/17/24	11:21	G	W	3	N	N	X			X	X		X		X	X	X						"
CH-CCR-FD05-0424	04/17/24	12:34	G	W	3	N	N	X			X	X		X		X	X	X						"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								**1**		**4**	**4**	**4**	**4**	**4**	**4**	**4**	**1**	**1**	**2**	**3**	**3**	**1**	**1**	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Phoenix
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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: **CCR**

TestAmerica Laboratories, Inc.

Client Contact	**Natalie Chrisman**	**Pam Norris (505) 598-8781**	**Date:**	COC No:
Arizona Public Service	**(602) 250-3608**	**Lab Contact: Danielle Roberts**	**Carrier:**	2 of 3 COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)		Sample Specific Notes:
CH-CCR-M64A-0424	04/18/24	13:13	G	W	5	Y	N						X		X				X					Low Flow
CH-CCR-M64A-0424	04/18/24	13:13	G	W	5	N	N	X		X		X		X		X	X	X		X	X	X		"
CH-CCR-M66A-0424	04/17/24	14:06	G	W	5	Y	N						X		X				X					"
CH-CCR-M66A-0424	04/17/24	14:06	G	W	5	N	N	X		X		X		X		X	X	X		X	X	X		"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	1	1	2	2	3	3	1	1	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

5/13/2024

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: **CCR**

TestAmerica Laboratories, Inc.

Client Contact	**Natalie Chrisman**	**Pam Norris (505) 598-8781**	**Date:**	COC No:
Arizona Public Service	**(602) 250-3608**	**Lab Contact: Danielle Roberts**	**Carrier:**	___3___ of ___3___ COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			Job / SDG No.:
Site: APS Cholla Power Plant (FAP)	☐ 2 days			
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-W123R-0424	04/18/24	16:24	G	W	5	Y	N					X		X					X					Low Flow
CH-CCR-W123R-0424	04/18/24	16:24	G	W	5	N	N	X	X		X		X		X	X	X			X	X		X	"
CH-CCR-W125-0424	04/18/24	15:44	G	W	3	N	N	X		X	X		X		X	X	X							"
CH-CCR-W126R-0424	04/17/24	13:06	G	W	5	Y	N					X		X					X					"
CH-CCR-W126R-0424	04/17/24	13:06	G	W	5	N	N	X	X		X		X		X	X	X			X	X		X	"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								**1**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**1**	**1**	**2**	**2**	**3**	**3**	**1**	**1**	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environment Te...

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39383.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217326-1
Address: 4955 Yarrow Street,	Due Date Requested: 5/2/2024			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
CH-CCR-M43A-0424 (550-217326-1)	4/18/24	10:09 Arizona		Water				X	X	2	
CH-CCR-M45A-0424 (550-217326-3)	4/18/24	09:05 Arizona		Water				X		1	
CH-CCR-M46A-0424 (550-217326-4)	4/17/24	15:35 Arizona		Water				X	X	2	
CH-CCR-M50A-0424 (550-217326-6)	4/18/24	14:56 Arizona		Water				X	X	2	
CH-CCR-M51A-0424 (550-217326-8)	4/18/24	14:19 Arizona		Water				X	X	2	
CH-CCR-M63A-0424 (550-217326-10)	4/17/24	11:21 Arizona		Water				X		1	
CH-CCR-M64A-0424 (550-217326-11)	4/18/24	13:13 Arizona		Water				X	X	2	
CH-CCR-MW66A-0424 (550-217326-13)	4/17/24	14:06 Arizona		Water				X	X	2	
CH-CCR-FD05-0424 (550-217326-15)	4/17/24	12:34 Arizona		Water				X		1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No. 550-39383.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217326-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 5/2/2024			Preservation Codes: -
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X			X	
CH-CCR-W123R-0424 (550-217326-16)	4/18/24	16:24 Arizona		Water			X	X	2	
CH-CCR-W125-0424 (550-217326-18)	4/18/24	15:44 Arizona		Water			X		1	
CH-CCR-W126R-0424 (550-217326-19)	4/17/24	13:06 Arizona		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Eme 04-22-24	Date/Time: 14:25	Company: ECTSW	Received by: Fedex	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 4/23/24 0910	Company: RRT/[illegible]
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.0 # MCF 0.1		

Ver: 05/08/2021

5/13/2024

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217326-1
SDG Number: APS Cholla Power Plant (FAP)

Login Number: 217326
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217326-1
SDG Number: APS Cholla Power Plant (FAP)

Login Number: 217326
List Number: 2
Creator: Naylis, Patrick J

List Source: Eurofins Denver
List Creation: 04/23/24 12:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 5/14/2024 6:49:18 AM Revision 1

JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-217589-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

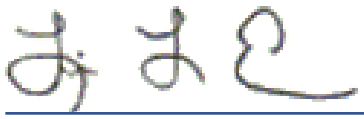
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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5/14/2024 6:49:18 AM
Revision 1

Authorized for release by
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Metals

Qualifier	Qualifier Description
L4	The associated blank spike recovery was below method acceptance limits.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter

General Chemistry

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-217589-1 — Eurofins Phoenix

Job Narrative
550-217589-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Revision
The report being provided is a revision of the original report sent on 5/9/2024. The report (revision 1) is being revised due to: Add Be to method 200.8.

The samples were received on 4/26/2024 10:48 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.6°C and 3.2°C.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 200.7 - Total Recoverable: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 280-651479 and analytical batch 280-652329 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 200.7 - Total Recoverable: The following samples were diluted due to the nature of the sample matrix: (280-190528-A-15-D ^5), (280-190528-A-15-E MS ^5), (280-190528-A-15-F MSD ^5), (280-190528-A-15-D PDS ^5) and (280-190528-A-15-D SD ^25). Elevated reporting limits (RLs) are provided.

Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-319916 and analytical batch 550-320293 was outside acceptance criteria for the analytes Barium and Lead. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. CH-CCR-M65A-0424 (550-217589-1), CH-CCR-M65A-0424 (550-217589-2) and CH-CCR-BudHunt-0424 (550-217589-4)

Method 200.8_CWA_LL - Dissolved: The laboratory control sample (LCS) associated with preparation batch 550-319916 and analytical batch 550-320293 was outside acceptance criteria for the analytes Barium and Lead. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. CH-CCR-M65A-0424 (550-217589-1), CH-CCR-M65A-0424 (550-217589-2) and CH-CCR-BudHunt-0424 (550-217589-4)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2540C_Calcd: The sample duplicate (DUP) precision for analytical batch 550-320055 was outside control limits. Sample non-homogeneity is suspected.

Method 2540C_Calcd: The following sample(s) was analyzed outside of analytical holding time due sample being received out of hold time. (550-217577-A-26) and (550-217577-A-26 DU).

Method SM5310_DOC_B - Dissolved: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(CCB 550-320204/21) and (MB 550-320204/6)

Job ID: 550-217589-1 (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217589-1	CH-CCR-M65A-0424	Water	04/24/24 09:40	04/26/24 10:48
550-217589-2	CH-CCR-M65A-0424	Water	04/24/24 09:40	04/26/24 10:48
550-217589-3	CH-CCR-BudHunt-0424	Water	04/23/24 08:36	04/26/24 10:48
550-217589-4	CH-CCR-BudHunt-0424	Water	04/23/24 08:36	04/26/24 10:48

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-1

Client Sample ID: CH-CCR-M65A-0424 — Lab Sample ID: 550-217589-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.21		0.10		mg/L	1		200.7	Dissolved
Manganese	0.31		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.5		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	2.3		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	3.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	3.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	3.5		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M65A-0424 — Lab Sample ID: 550-217589-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	2900	D2	200		mg/L	100		300.0	Total/NA
Fluoride	2.1		0.40		mg/L	1		300.0	Total/NA
Sulfate	2600	D2	200		mg/L	100		300.0	Total/NA
Boron	10		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	760		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.1		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	300		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.32		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	35	M1	0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1800	M3	50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	490	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0046		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.015	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0052		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0034		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.12	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0016		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.13		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8600	B1	100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	14.8	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-BudHunt-0424 — Lab Sample ID: 550-217589-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.4		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	0.81		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.81		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.81		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-BudHunt-0424 — Lab Sample ID: 550-217589-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	310	D2	20		mg/L	10		300.0	Total/NA
Fluoride	0.40		0.40		mg/L	1		300.0	Total/NA
Sulfate	240	D2	20		mg/L	10		300.0	Total/NA
Boron	0.12		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	100		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	48		2.0		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

Client Sample ID: CH-CCR-BudHunt-0424 (Continued)

Lab Sample ID: 550-217589-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Potassium	3.8		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	200		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	20	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0015		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.012	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Lead	0.00060	L4	0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0019	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0020		0.00050		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	170		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	170		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1000	B1	20		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	14.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M65A-0424

Date Collected: 04/24/24 09:40
Date Received: 04/26/24 10:48

Lab Sample ID: 550-217589-1

Matrix: Water

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.21		0.10		mg/L		04/29/24 08:59	05/07/24 05:05	1
Manganese	0.31		0.010		mg/L		04/29/24 08:59	05/07/24 05:05	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.5		0.50		ug/L		04/29/24 08:10	05/02/24 14:03	1
Cobalt	2.3		0.50		ug/L		04/29/24 08:10	05/02/24 14:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	3.5		0.50		mg/L			05/01/24 19:40	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	3.5		0.50		mg/L			05/01/24 19:40	1
Dissolved Organic Carbon - Quad (SM 5310B)	3.5		0.50		mg/L			05/01/24 19:40	1

Client Sample ID: CH-CCR-M65A-0424

Date Collected: 04/24/24 09:40
Date Received: 04/26/24 10:48

Lab Sample ID: 550-217589-2

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2900	D2	200		mg/L			04/29/24 17:24	100
Fluoride	2.1		0.40		mg/L			04/29/24 16:59	1
Sulfate	2600	D2	200		mg/L			04/29/24 17:24	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	10		0.050		mg/L		04/29/24 08:59	05/07/24 04:58	1
Calcium	760		2.0		mg/L		04/29/24 08:59	05/07/24 04:58	1
Iron	1.1		0.10		mg/L		04/29/24 08:59	05/07/24 04:58	1
Magnesium	300		2.0		mg/L		04/29/24 08:59	05/07/24 04:58	1
Manganese	0.32		0.010		mg/L		04/29/24 08:59	05/07/24 04:58	1
Potassium	35	M1	0.50		mg/L		04/29/24 08:59	05/07/24 04:58	1
Sodium	1800	M3	50		mg/L		04/29/24 08:59	05/08/24 15:06	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	490	T5	20		ug/L		05/01/24 08:30	05/02/24 19:25	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:05	1
Arsenic	0.0046		0.00050		mg/L		04/29/24 08:10	05/02/24 14:05	1
Barium	0.015	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:05	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:05	1
Chromium	0.0052		0.0010		mg/L		04/29/24 08:10	05/02/24 14:05	1
Cobalt	0.0034		0.00050		mg/L		04/29/24 08:10	05/02/24 14:05	1
Lead	ND	L4	0.00050		mg/L		04/29/24 08:10	05/02/24 14:05	1
Molybdenum	0.12	T5	0.00050		mg/L		04/29/24 08:10	05/02/24 14:05	1
Selenium	0.0016		0.00050		mg/L		04/29/24 08:10	05/02/24 14:05	1

Client Sample ID: CH-CCR-M65A-0424

Lab Sample ID: 550-217589-2

Date Collected: 04/24/24 09:40

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:05	1
Beryllium	ND		0.00040		mg/L		04/29/24 08:10	05/02/24 14:05	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:19	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.13**		0.050		mg/L			05/01/24 15:07	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 19:20	1
Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			05/02/24 12:19	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/02/24 12:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**160**		6.0		mg/L			05/02/24 12:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/02/24 12:19	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/02/24 12:19	1
Total Dissolved Solids (SM 2540C)	**8600**	**B1**	100		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			05/01/24 17:51	1
Temperature (SM 4500 H+ B)	**14.8**	**H5 T5**	0.1		Degrees C			05/01/24 17:51	1

Client Sample ID: CH-CCR-BudHunt-0424

Lab Sample ID: 550-217589-3

Date Collected: 04/23/24 08:36

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 05:12	1
Manganese	ND		0.010		mg/L		04/29/24 08:59	05/07/24 05:12	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.4**		0.50		ug/L		04/29/24 08:10	05/02/24 14:07	1
Cobalt	ND		0.50		ug/L		04/29/24 08:10	05/02/24 14:07	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.81**		0.50		mg/L			05/01/24 20:19	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.81**		0.50		mg/L			05/01/24 20:19	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.81**		0.50		mg/L			05/01/24 20:19	1

Client Sample ID: CH-CCR-BudHunt-0424

Lab Sample ID: 550-217589-4

Date Collected: 04/23/24 08:36

Matrix: Water

Date Received: 04/26/24 10:48

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**310**	**D2**	20		mg/L			04/29/24 18:15	10

Client Sample ID: CH-CCR-BudHunt-0424

Date Collected: 04/23/24 08:36
Date Received: 04/26/24 10:48

Lab Sample ID: 550-217589-4

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.40**		0.40		mg/L			04/29/24 17:49	1
Sulfate	**240**	**D2**	20		mg/L			04/29/24 18:15	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.12**		0.050		mg/L		04/29/24 08:59	05/07/24 05:19	1
Calcium	**100**		2.0		mg/L		04/29/24 08:59	05/07/24 05:19	1
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 05:19	1
Magnesium	**48**		2.0		mg/L		04/29/24 08:59	05/07/24 05:19	1
Manganese	ND		0.010		mg/L		04/29/24 08:59	05/07/24 05:19	1
Potassium	**3.8**		0.50		mg/L		04/29/24 08:59	05/07/24 05:19	1
Sodium	**200**		50		mg/L		04/29/24 08:59	05/08/24 15:09	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**20**	**T5**	20		ug/L		05/01/24 08:30	05/02/24 19:29	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:09	1
Arsenic	**0.0015**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:09	1
Barium	**0.012**	**L4**	0.00050		mg/L		04/29/24 08:10	05/02/24 14:09	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:09	1
Chromium	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 14:09	1
Cobalt	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 14:09	1
Lead	**0.00060**	**L4**	0.00050		mg/L		04/29/24 08:10	05/02/24 14:09	1
Molybdenum	**0.0019**	**T5**	0.00050		mg/L		04/29/24 08:10	05/02/24 14:09	1
Selenium	**0.0020**		0.00050		mg/L		04/29/24 08:10	05/02/24 14:09	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 14:09	1
Beryllium	ND		0.00040		mg/L		04/29/24 08:10	05/02/24 14:09	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:17	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/01/24 15:08	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/08/24 19:22	1
Alkalinity as CaCO3 (SM 2320B)	**170**		6.0		mg/L			05/02/24 12:25	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/02/24 12:25	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**170**		6.0		mg/L			05/02/24 12:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/02/24 12:25	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/02/24 12:25	1
Total Dissolved Solids (SM 2540C)	**1000**	**B1**	20		mg/L			04/30/24 14:05	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/01/24 17:51	1
Temperature (SM 4500 H+ B)	**14.2**	**H5 T5**	0.1		Degrees C			05/01/24 17:51	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-319964/2
Matrix: Water
Analysis Batch: 319964

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			04/29/24 12:49	1
Fluoride	ND		0.40		mg/L			04/29/24 12:49	1
Sulfate	ND		2.0		mg/L			04/29/24 12:49	1

Lab Sample ID: LCS 550-319964/5
Matrix: Water
Analysis Batch: 319964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	19.6		mg/L		98	90 - 110		
Fluoride			4.00	3.98		mg/L		100	90 - 110		
Sulfate			20.0	19.5		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-319964/6
Matrix: Water
Analysis Batch: 319964

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.6		mg/L		98	90 - 110	0	20
Fluoride			4.00	3.98		mg/L		100	90 - 110	0	20
Sulfate			20.0	19.5		mg/L		98	90 - 110	0	20

Lab Sample ID: 550-217493-J-1 MS ^5
Matrix: Water
Analysis Batch: 319964

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	200	D1	100	304	D2	mg/L		104	80 - 120		
Fluoride	ND	D1 D5	20.0	19.6	D2	mg/L		98	80 - 120		
Sulfate	4100	E2 M3 D1	100	4090	D2 E2 M3	mg/L		-30	80 - 120		

Lab Sample ID: 550-217493-J-1 MSD ^5
Matrix: Water
Analysis Batch: 319964

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	200	D1	100	304	D2	mg/L		104	80 - 120	0	20
Fluoride	ND	D1 D5	20.0	19.9	D2	mg/L		99	80 - 120	2	20
Sulfate	4100	E2 M3 D1	100	4090	D2 E2 M3	mg/L		-37	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-319930/1-A
Matrix: Water
Analysis Batch: 320440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319930

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		04/29/24 08:59	05/07/24 04:41	1
Calcium	ND		2.0		mg/L		04/29/24 08:59	05/07/24 04:41	1
Iron	ND		0.10		mg/L		04/29/24 08:59	05/07/24 04:41	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 550-319930/1-A
Matrix: Water
Analysis Batch: 320440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319930

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	ND		2.0		mg/L		04/29/24 08:59	05/07/24 04:41	1
Manganese	ND		0.010		mg/L		04/29/24 08:59	05/07/24 04:41	1
Potassium	ND		0.50		mg/L		04/29/24 08:59	05/07/24 04:41	1

Lab Sample ID: MB 550-319930/1-A
Matrix: Water
Analysis Batch: 320547

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319930

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		0.50		mg/L		04/29/24 08:59	05/08/24 14:49	1

Lab Sample ID: LCS 550-319930/2-A
Matrix: Water
Analysis Batch: 320440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319930

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.16		mg/L		116	85 - 115		
Calcium			21.0	24.7		mg/L		117	85 - 115		
Iron			1.00	1.17		mg/L		117	85 - 115		
Magnesium			21.0	24.6		mg/L		117	85 - 115		
Manganese			1.00	1.15		mg/L		115	85 - 115		
Potassium			20.0	23.2		mg/L		116	85 - 115		

Lab Sample ID: LCS 550-319930/2-A
Matrix: Water
Analysis Batch: 320547

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319930

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium			20.0	20.2		mg/L		101	85 - 115		

Lab Sample ID: LCSD 550-319930/3-A
Matrix: Water
Analysis Batch: 320440

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319930

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron			1.00	1.16		mg/L		116	85 - 115	0	20
Calcium			21.0	24.5		mg/L		117	85 - 115	0	20
Iron			1.00	1.15		mg/L		115	85 - 115	1	20
Magnesium			21.0	24.4		mg/L		116	85 - 115	1	20
Manganese			1.00	1.15		mg/L		115	85 - 115	0	20
Potassium			20.0	23.0		mg/L		115	85 - 115	1	20

Lab Sample ID: LCSD 550-319930/3-A
Matrix: Water
Analysis Batch: 320547

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319930

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium			20.0	19.8		mg/L		99	85 - 115	2	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-217589-2 MS — **Client Sample ID: CH-CCR-M65A-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320440 — **Prep Batch: 319930**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	10		1.00	11.2	M3	mg/L		108	70 - 130
Calcium	760		21.0	775	M3	mg/L		79	70 - 130
Iron	1.1		1.00	2.29		mg/L		116	70 - 130
Magnesium	300		21.0	317	M3	mg/L		91	70 - 130
Manganese	0.32		1.00	1.41		mg/L		109	70 - 130
Potassium	35	M1	20.0	63.5	M1	mg/L		144	70 - 130

Lab Sample ID: 550-217589-2 MS — **Client Sample ID: CH-CCR-M65A-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320547 — **Prep Batch: 319930**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	1800	M3	20.0	2140	M3	mg/L		1612	70 - 130

Lab Sample ID: 550-217589-2 MSD — **Client Sample ID: CH-CCR-M65A-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320440 — **Prep Batch: 319930**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	10		1.00	11.1	M3	mg/L		98	70 - 130	1	20
Calcium	760		21.0	774	M3	mg/L		74	70 - 130	0	20
Iron	1.1		1.00	2.39		mg/L		126	70 - 130	4	20
Magnesium	300		21.0	320	M3	mg/L		107	70 - 130	1	20
Manganese	0.32		1.00	1.39		mg/L		107	70 - 130	1	20
Potassium	35	M1	20.0	65.7	M1	mg/L		155	70 - 130	3	20

Lab Sample ID: 550-217589-2 MSD — **Client Sample ID: CH-CCR-M65A-0424**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320547 — **Prep Batch: 319930**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	1800	M3	20.0	1800	M3	mg/L		-68	70 - 130	17	20

Lab Sample ID: 280-190528-A-15-E MS ^5 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 652329 — **Prep Batch: 651479**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	ND	M2	1000	701	M2	ug/L		62	70 - 130

Lab Sample ID: 280-190528-A-15-F MSD ^5 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 652329 — **Prep Batch: 651479**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	ND	M2	1000	727	M2	ug/L		64	70 - 130	4	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 280-651479/1-A
Matrix: Water
Analysis Batch: 652013

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 651479

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20		ug/L		05/01/24 08:30	05/02/24 18:50	1

Lab Sample ID: LCS 280-651479/2-A
Matrix: Water
Analysis Batch: 652013

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 651479

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			1000	986		ug/L		99	90 - 112		

Lab Sample ID: LCSD 280-651479/16-A
Matrix: Water
Analysis Batch: 652013

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 651479

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium			1000	970		ug/L		97	90 - 112	2	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-319916/1-A
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319916

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 13:49	1
Arsenic	ND		0.50		ug/L		04/29/24 08:10	05/02/24 13:49	1
Barium	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 13:49	1
Cadmium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 13:49	1
Chromium	ND		0.0010		mg/L		04/29/24 08:10	05/02/24 13:49	1
Cobalt	ND		0.50		ug/L		04/29/24 08:10	05/02/24 13:49	1
Lead	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 13:49	1
Molybdenum	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 13:49	1
Selenium	ND		0.00050		mg/L		04/29/24 08:10	05/02/24 13:49	1
Thallium	ND		0.00010		mg/L		04/29/24 08:10	05/02/24 13:49	1
Beryllium	ND		0.00040		mg/L		04/29/24 08:10	05/02/24 13:49	1

Lab Sample ID: LCS 550-319916/2-A
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319916

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.106		mg/L		106	85 - 115		
Arsenic			100	102		ug/L		102	85 - 115		
Barium			0.100	0.0595	L4	mg/L		60	85 - 115		
Cadmium			0.100	0.104		mg/L		104	85 - 115		
Chromium			0.100	0.105		mg/L		105	85 - 115		
Cobalt			100	106		ug/L		106	85 - 115		
Lead			0.100	0.0837	L4	mg/L		84	85 - 115		
Molybdenum			0.100	0.111		mg/L		111	85 - 115		
Selenium			0.100	0.0998		mg/L		100	85 - 115		
Thallium			0.100	0.0965		mg/L		97	85 - 115		

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 550-319916/2-A
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319916

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			0.100	0.108		mg/L		108	85 - 115		

Lab Sample ID: LCSD 550-319916/3-A
Matrix: Water
Analysis Batch: 320293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319916

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.105		mg/L		105	85 - 115	1	20
Arsenic			100	102		ug/L		102	85 - 115	0	20
Barium			0.100	0.0589	L4	mg/L		59	85 - 115	1	20
Cadmium			0.100	0.103		mg/L		103	85 - 115	1	20
Chromium			0.100	0.106		mg/L		106	85 - 115	1	20
Cobalt			100	107		ug/L		107	85 - 115	0	20
Lead			0.100	0.0836	L4	mg/L		84	85 - 115	0	20
Molybdenum			0.100	0.107		mg/L		107	85 - 115	4	20
Selenium			0.100	0.0991		mg/L		99	85 - 115	1	20
Thallium			0.100	0.0964		mg/L		96	85 - 115	0	20
Beryllium			0.100	0.108		mg/L		108	85 - 115	0	20

Lab Sample ID: 550-217589-1 MS
Matrix: Water
Analysis Batch: 320293

Client Sample ID: CH-CCR-M65A-0424
Prep Type: Dissolved
Prep Batch: 319916

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND	M2	0.100	0.104	M2	mg/L		32	70 - 130		
Arsenic	3.5		100	114		ug/L		110	70 - 130		
Barium	14	L4 M3	0.100	0.0795	M3	mg/L		-13438	70 - 130		
Cadmium	ND	M2	0.100	0.0906	M2	mg/L		41	70 - 130		
Chromium	ND		0.100	0.106		mg/L		106	70 - 130		
Cobalt	2.3		100	102		ug/L		100	70 - 130		
Lead	ND	L4	0.100	0.0748		mg/L		75	70 - 130		
Molybdenum	100	T5 M3	0.100	0.208	M3	mg/L		-10119	70 - 130		
Selenium	1.2	M3	0.100	0.0881	M3	mg/L		-1155	70 - 130		
Thallium	ND	M2	0.100	0.0860	M2	mg/L		39	70 - 130		
Beryllium	ND		0.100	0.0926		mg/L		93	70 - 130		

Lab Sample ID: 550-217589-1 MSD
Matrix: Water
Analysis Batch: 320293

Client Sample ID: CH-CCR-M65A-0424
Prep Type: Dissolved
Prep Batch: 319916

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	M2	0.100	0.105	M2	mg/L		33	70 - 130	1	20
Arsenic	3.5		100	114		ug/L		110	70 - 130	0	20
Barium	14	L4 M3	0.100	0.0937	M3	mg/L		-13423	70 - 130	16	20
Cadmium	ND	M2	0.100	0.0909	M2	mg/L		41	70 - 130	0	20
Chromium	ND		0.100	0.108		mg/L		108	70 - 130	2	20
Cobalt	2.3		100	102		ug/L		100	70 - 130	0	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-217589-1 MSD
Matrix: Water
Analysis Batch: 320293

Client Sample ID: CH-CCR-M65A-0424
Prep Type: Dissolved
Prep Batch: 319916

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	ND	L4	0.100	0.0753		mg/L		75	70 - 130	1	20
Molybdenum	100	T5 M3	0.100	0.207	M3	mg/L		-1011 95	70 - 130	0	20
Selenium	1.2	M3	0.100	0.0880	M3	mg/L		-1155	70 - 130	0	20
Thallium	ND	M2	0.100	0.0836	M2	mg/L		37	70 - 130	3	20
Beryllium	ND		0.100	0.0885		mg/L		89	70 - 130	4	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-319946/1-A
Matrix: Water
Analysis Batch: 319976

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319946

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/29/24 11:03	04/29/24 14:01	1

Lab Sample ID: LCS 550-319946/2-A
Matrix: Water
Analysis Batch: 319976

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319946

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00462		mg/L		92	85 - 115		

Lab Sample ID: LCSD 550-319946/3-A
Matrix: Water
Analysis Batch: 319976

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319946

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00473		mg/L		95	85 - 115	2	20

Lab Sample ID: 550-217554-A-1-B MS
Matrix: Water
Analysis Batch: 319976

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 319946

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00547		mg/L		109	70 - 130		

Lab Sample ID: 550-217554-A-1-C MSD
Matrix: Water
Analysis Batch: 319976

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 319946

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00555		mg/L		111	70 - 130	1	20

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-320157/60
Matrix: Water
Analysis Batch: 320157

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			05/01/24 14:28	1

Lab Sample ID: LCS 550-320157/61
Matrix: Water
Analysis Batch: 320157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			1.00	1.02		mg/L		102	90 - 110		

Lab Sample ID: LCSD 550-320157/62
Matrix: Water
Analysis Batch: 320157

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	1.01		mg/L		101	90 - 110	1	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-652685/94
Matrix: Water
Analysis Batch: 652685

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			05/08/24 18:36	1

Lab Sample ID: LCS 280-652685/92
Matrix: Water
Analysis Batch: 652685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			1.00	0.953		mg/L		95	90 - 110		

Lab Sample ID: LCSD 280-652685/93
Matrix: Water
Analysis Batch: 652685

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			1.00	0.974		mg/L		97	90 - 110	2	10

Lab Sample ID: 280-190572-B-3 MS
Matrix: Water
Analysis Batch: 652685

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	0.53		2.00	2.65		mg/L		106	90 - 110		

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 280-190572-B-3 MSD
Matrix: Water
Analysis Batch: 652685

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.53		2.00	2.57		mg/L		102	90 - 110	3	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-320223/4
Matrix: Water
Analysis Batch: 320223

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			05/02/24 09:07	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			05/02/24 09:07	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/02/24 09:07	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/02/24 09:07	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			05/02/24 09:07	1

Lab Sample ID: LCS 550-320223/3
Matrix: Water
Analysis Batch: 320223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	240		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-320223/14
Matrix: Water
Analysis Batch: 320223

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	239		mg/L		96	90 - 110	0	20

Lab Sample ID: 550-217578-B-4 DU
Matrix: Water
Analysis Batch: 320223

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-320055/1
Matrix: Water
Analysis Batch: 320055

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			04/30/24 14:05	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 550-320055/2
Matrix: Water
Analysis Batch: 320055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	972		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320055/3
Matrix: Water
Analysis Batch: 320055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	970		mg/L		97	90 - 110	0	10

Lab Sample ID: 550-217577-A-26 DU
Matrix: Water
Analysis Batch: 320055

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	5800	B1		5340		mg/L				9	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-320161/1
Matrix: Water
Analysis Batch: 320161

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.6	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-320161/13
Matrix: Water
Analysis Batch: 320161

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.7	98.5 - 101.5		

Lab Sample ID: 550-217481-A-1 DU
Matrix: Water
Analysis Batch: 320161

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.6			7.6		SU				0.3	5
Temperature	13.1			14.1		Degrees C				7	

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 550-320204/6
Matrix: Water
Analysis Batch: 320204

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			05/01/24 18:59	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			05/01/24 18:59	1

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-1

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: MB 550-320204/6
Matrix: Water
Analysis Batch: 320204

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			05/01/24 18:59	1

Lab Sample ID: 550-217589-1 MS
Matrix: Water
Analysis Batch: 320204

Client Sample ID: CH-CCR-M65A-0424
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	3.5		20.0	23.5		mg/L		100	90 - 110		
Dissolved Organic Carbon - Duplicate	3.5		20.0	23.5		mg/L		100	90 - 110		
Dissolved Organic Carbon - Quad	3.5		20.0	23.5		mg/L		100	90 - 110		

Lab Sample ID: 550-217589-1 MSD
Matrix: Water
Analysis Batch: 320204

Client Sample ID: CH-CCR-M65A-0424
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	3.5		20.0	23.8		mg/L		102	90 - 110	1	20
Dissolved Organic Carbon - Duplicate	3.5		20.0	23.8		mg/L		102	90 - 110	1	20
Dissolved Organic Carbon - Quad	3.5		20.0	23.8		mg/L		102	90 - 110	1	20

HPLC/IC

Analysis Batch: 319964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	300.0	
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	300.0	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	300.0	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	300.0	
MB 550-319964/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319964/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319964/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217493-J-1 MS ^5	Matrix Spike	Total/NA	Water	300.0	
550-217493-J-1 MSD ^5	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 319916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-1	CH-CCR-M65A-0424	Dissolved	Water	200.8	
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	200.8	
550-217589-3	CH-CCR-BudHunt-0424	Dissolved	Water	200.8	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	200.8	
MB 550-319916/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-319916/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-319916/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-217589-1 MS	CH-CCR-M65A-0424	Dissolved	Water	200.8	
550-217589-1 MSD	CH-CCR-M65A-0424	Dissolved	Water	200.8	

Prep Batch: 319930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-1	CH-CCR-M65A-0424	Dissolved	Water	200.7	
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	200.7	
550-217589-3	CH-CCR-BudHunt-0424	Dissolved	Water	200.7	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	200.7	
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217589-2 MS	CH-CCR-M65A-0424	Total/NA	Water	200.7	
550-217589-2 MSD	CH-CCR-M65A-0424	Total/NA	Water	200.7	

Prep Batch: 319946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	245.1	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	245.1	
MB 550-319946/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-319946/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-319946/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-217554-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	
550-217554-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 319976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	245.1	319946
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	245.1	319946
MB 550-319946/1-A	Method Blank	Total/NA	Water	245.1	319946

Metals (Continued)

Analysis Batch: 319976 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-319946/2-A	Lab Control Sample	Total/NA	Water	245.1	319946
LCSD 550-319946/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	319946
550-217554-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	319946
550-217554-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	319946

Analysis Batch: 320293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-1	CH-CCR-M65A-0424	Dissolved	Water	200.8 LL	319916
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	200.8 LL	319916
550-217589-3	CH-CCR-BudHunt-0424	Dissolved	Water	200.8 LL	319916
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	200.8 LL	319916
MB 550-319916/1-A	Method Blank	Total/NA	Water	200.8 LL	319916
LCS 550-319916/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	319916
LCSD 550-319916/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	319916
550-217589-1 MS	CH-CCR-M65A-0424	Dissolved	Water	200.8 LL	319916
550-217589-1 MSD	CH-CCR-M65A-0424	Dissolved	Water	200.8 LL	319916

Analysis Batch: 320440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-1	CH-CCR-M65A-0424	Dissolved	Water	200.7	319930
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-3	CH-CCR-BudHunt-0424	Dissolved	Water	200.7	319930
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	200.7 Rev 4.4	319930
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319930
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319930
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-2 MS	CH-CCR-M65A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-2 MSD	CH-CCR-M65A-0424	Total/NA	Water	200.7 Rev 4.4	319930

Analysis Batch: 320547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	200.7 Rev 4.4	319930
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319930
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319930
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-2 MS	CH-CCR-M65A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-2 MSD	CH-CCR-M65A-0424	Total/NA	Water	200.7 Rev 4.4	319930

Prep Batch: 651479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total Recoverable	Water	200.7	
550-217589-4	CH-CCR-BudHunt-0424	Total Recoverable	Water	200.7	
MB 280-651479/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-651479/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-651479/16-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
280-190528-A-15-E MS ^5	Matrix Spike	Total/NA	Water	200.7	
280-190528-A-15-F MSD ^5	Matrix Spike Duplicate	Total/NA	Water	200.7	

QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-1

Metals

Analysis Batch: 652013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
550-217589-4	CH-CCR-BudHunt-0424	Total Recoverable	Water	200.7 Rev 4.4	651479
MB 280-651479/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	651479
LCS 280-651479/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	651479
LCSD 280-651479/16-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	651479

Analysis Batch: 652329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190528-A-15-E MS ^5	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	651479
280-190528-A-15-F MSD ^5	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	651479

General Chemistry

Analysis Batch: 320055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	SM 2540C	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	SM 2540C	
MB 550-320055/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320055/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320055/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217577-A-26 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 320157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	350.1	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	350.1	
MB 550-320157/60	Method Blank	Total/NA	Water	350.1	
LCS 550-320157/61	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-320157/62	Lab Control Sample Dup	Total/NA	Water	350.1	

Analysis Batch: 320161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	SM 4500 H+ B	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320161/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320161/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-217481-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 320204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-1	CH-CCR-M65A-0424	Dissolved	Water	SM 5310B	
550-217589-3	CH-CCR-BudHunt-0424	Dissolved	Water	SM 5310B	
MB 550-320204/6	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-320204/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-320204/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-217589-1 MS	CH-CCR-M65A-0424	Dissolved	Water	SM 5310B	
550-217589-1 MSD	CH-CCR-M65A-0424	Dissolved	Water	SM 5310B	

Analysis Batch: 320223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 320223 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	SM 2320B	
MB 550-320223/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320223/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320223/14	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217578-B-4 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 652685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	353.2	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	353.2	
MB 280-652685/94	Method Blank	Total/NA	Water	353.2	
LCS 280-652685/92	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-652685/93	Lab Control Sample Dup	Total/NA	Water	353.2	
280-190572-B-3 MS	Matrix Spike	Total/NA	Water	353.2	
280-190572-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-1

Client Sample ID: CH-CCR-M65A-0424

Lab Sample ID: 550-217589-1

Date Collected: 04/24/24 09:40
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 05:05
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:03
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 19:40

Client Sample ID: CH-CCR-M65A-0424

Lab Sample ID: 550-217589-2

Date Collected: 04/24/24 09:40
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/29/24 16:59
Total/NA	Analysis	300.0		100	319964	RDC	EET PHX	04/29/24 17:24
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652013	ADL	EET DEN	05/02/24 19:25
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	320440	GLW	EET PHX	05/07/24 04:58
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		100	320547	GLW	EET PHX	05/08/24 15:06
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:05
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:19
Total/NA	Analysis	350.1		1	320157	KMS	EET PHX	05/01/24 15:07
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 19:20
Total/NA	Analysis	SM 2320B		1	320223	ELN	EET PHX	05/02/24 12:19
Total/NA	Analysis	SM 2540C		1	320055	RGG	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320161	ELN	EET PHX	05/01/24 17:51

Client Sample ID: CH-CCR-BudHunt-0424

Lab Sample ID: 550-217589-3

Date Collected: 04/23/24 08:36
Matrix: Water
Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Dissolved	Analysis	200.7		1	320440	GLW	EET PHX	05/07/24 05:12
Dissolved	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Dissolved	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:07
Dissolved	Analysis	SM 5310B		1	320204	AKS	EET PHX	05/01/24 20:19

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-1

Client Sample ID: CH-CCR-BudHunt-0424

Date Collected: 04/23/24 08:36
Date Received: 04/26/24 10:48

Lab Sample ID: 550-217589-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319964	RDC	EET PHX	04/29/24 17:49
Total/NA	Analysis	300.0		10	319964	RDC	EET PHX	04/29/24 18:15
Total Recoverable	Prep	200.7			651479	KLG	EET DEN	05/01/24 08:30
Total Recoverable	Analysis	200.7 Rev 4.4		1	652013	ADL	EET DEN	05/02/24 19:29
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	320440	GLW	EET PHX	05/07/24 05:19
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		100	320547	GLW	EET PHX	05/08/24 15:09
Total/NA	Prep	200.8			319916	SGO	EET PHX	04/29/24 08:10
Total/NA	Analysis	200.8 LL		1	320293	DSJ	EET PHX	05/02/24 14:09
Total/NA	Prep	245.1			319946	HHL	EET PHX	04/29/24 11:03
Total/NA	Analysis	245.1		1	319976	HHL	EET PHX	04/29/24 14:17
Total/NA	Analysis	350.1		1	320157	KMS	EET PHX	05/01/24 15:08
Total/NA	Analysis	353.2		1	652685	BCR	EET DEN	05/08/24 19:22
Total/NA	Analysis	SM 2320B		1	320223	ELN	EET PHX	05/02/24 12:25
Total/NA	Analysis	SM 2540C		1	320055	RGG	EET PHX	04/30/24 14:05 - 05/03/24 16:04 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320161	ELN	EET PHX	05/01/24 17:51

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-217589-1
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8 LL	200.8	Water	Molybdenum
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Lithium

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7	Dissolved Metals by ICP	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217589

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	1 of 2 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			Job / SDG No.:
Site: APS Cholla Power Plant (FAP)	☐ 2 days			
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 - Alk. as	Sample Specific Notes:
CH-CCR-M65A-0424 -01	04/24/24	940	G	W	5	Y							X		X				X				Low Flow
CH-CCR-M65A-0424 -02	04/24/24	940	G	W	5	N		X		X		X		X		X	X	X		X	X	X	"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1	

550-217589 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

3.2°C | 1.6°C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____			
Relinquished by:	Company: WSP	Date/Time: 4-26-24	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time: 1045	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 4/26/24 1048

CDO

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 217589

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Pam Norris (505) 598-8781	Date:	COC No:
Arizona Public Service	(602) 250-3608	Lab Contact: Danielle Roberts	Carrier:	2 of 2 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below ____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: 300590307	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-BudHunt-0424 -03	04/23/24	836	G	W	5	Y						X		X					X					Port Sample
CH-CCR-BudHunt-0424 -04	04/23/24	836	G	W	5	N		X	X		X		X		X	X	X			X	X		X	Port Sample
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____								1	4	4	4	4	4	4	4	1	1	2	2	3	3	1	1	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'* 3.2/1.6°

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
BEIL	WSP	~~10~~ 4-26-24			
Relinquished by:	Company:	Date/Time: 1048	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 4/26/24 10:48

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39420.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217589-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 5/9/2024			Preservation Codes: -
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR Groundwater Monitoring	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-CCR-M65A-0424 (550-217589-2)	4/24/24	09:40 Arizona		Water			X	X	2	
CH-CCR-BudHunt-0424 (550-217589-4)	4/23/24	08:36 Arizona		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 04-26-24 13:40	Company: EETSW	Received by: Fedex	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 4/27/24 1025	Company: EETDEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.3 1 Naga CF16.2		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217589-1

Login Number: 217589
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217589-1

Login Number: 217589
List Number: 2
Creator: Rystrom, Joshua R

List Source: Eurofins Denver
List Creation: 04/27/24 02:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

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JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-217589-2

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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Authorized for release by
Rebecca Gentes, Project Manager I
Rebecca.Gentes@et.eurofinsus.com
Designee for
Linda Eshelman, Project Manager II
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(602)659-7681

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-217589-2 — Eurofins Phoenix

Job Narrative
550-217589-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/26/2024 10:48 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.6°C and 3.2°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217589-2	CH-CCR-M65A-0424	Water	04/24/24 09:40	04/26/24 10:48
550-217589-4	CH-CCR-BudHunt-0424	Water	04/23/24 08:36	04/26/24 10:48

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-2

Client Sample ID: CH-CCR-M65A-0424 — Lab Sample ID: 550-217589-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.0058		0.0010		mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: CH-CCR-BudHunt-0424 — Lab Sample ID: 550-217589-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-2

Client Sample ID: CH-CCR-M65A-0424

Lab Sample ID: 550-217589-2

Date Collected: 04/24/24 09:40
Date Received: 04/26/24 10:48

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.0058**		0.0010		mg/L		04/29/24 08:59	06/19/24 14:42	1

Client Sample ID: CH-CCR-BudHunt-0424

Lab Sample ID: 550-217589-4

Date Collected: 04/23/24 08:36
Date Received: 04/26/24 10:48

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		04/29/24 08:59	06/19/24 14:49	1

QC Sample Results

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-2

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-319930/1-A
Matrix: Water
Analysis Batch: 322714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319930

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		04/29/24 08:59	06/19/24 14:19	1

Lab Sample ID: LCS 550-319930/2-A
Matrix: Water
Analysis Batch: 322714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319930

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			1.00	1.06		mg/L		106	85 - 115		

Lab Sample ID: LCSD 550-319930/3-A
Matrix: Water
Analysis Batch: 322714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319930

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium			1.00	1.09		mg/L		109	85 - 115	2	20

Metals

Prep Batch: 319930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	200.7	
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	200.7	
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	

Analysis Batch: 322714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217589-2	CH-CCR-M65A-0424	Total/NA	Water	200.7 Rev 4.4	319930
550-217589-4	CH-CCR-BudHunt-0424	Total/NA	Water	200.7 Rev 4.4	319930
MB 550-319930/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319930
LCS 550-319930/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319930
LCSD 550-319930/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319930

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-2

Client Sample ID: CH-CCR-M65A-0424

Lab Sample ID: 550-217589-2

Date Collected: 04/24/24 09:40

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	322714	JAC	EET PHX	06/19/24 14:42

Client Sample ID: CH-CCR-BudHunt-0424

Lab Sample ID: 550-217589-4

Date Collected: 04/23/24 08:36

Matrix: Water

Date Received: 04/26/24 10:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			319930	SGO	EET PHX	04/29/24 08:59
Total/NA	Analysis	200.7 Rev 4.4		1	322714	JAC	EET PHX	06/19/24 14:49

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-217589-2
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Phoenix

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-25

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217589-2

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.7	Preparation, Total Metals	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217589-2

Login Number: 217589
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/14/2024 12:27:42 PM

JOB DESCRIPTION

CCR Groundwater Monitoring

JOB NUMBER

550-217871-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

my EOL

Job Notes

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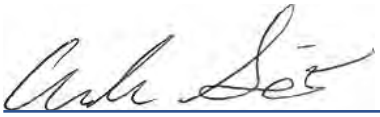
The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization



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6/14/2024 12:27:42 PM

Authorized for release by
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Designee for
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linda.eshelman@et.eurofinsus.com
(602)659-7681

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
D5	Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Metals

Qualifier	Qualifier Description
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
T5	Laboratory not licensed for this parameter

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
R8	Sample RPD exceeded the method acceptance limit.
T5	Laboratory not licensed for this parameter

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
550-217871-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/3/2024 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.5°C and 3.5°C.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 200.7 - Total Recoverable: The following sample was diluted because the initial analysis produced a significant negative result - the absolute value exceeded the reporting limit (RL): CH-CCR-EB01-0424 (550-217871-24). Reporting limits (RLs) are elevated as a result.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2540C_Calcd: The sample duplicate (DUP) precision was outside control limits. Sample non-homogeneity is suspected.

Method 2540C_Calcd: The sample parent precision for was outside control limits. Sample non-homogeneity is suspected.

Method SM5310_DOC_B - Dissolved: The following blanks have an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(CCB 550-320900/33), (CCB 550-320900/4) and (MB 550-320900/6)

Method SM5310_DOC_B - Dissolved: The following blank has an RPD >10% for consecutive replicates. All reported results are less than one half of the reporting limit; data was reported.

(MB 550-320938/6)

Method SM5310B: The following blanks have an RPD >10% for consecutive replicates. Results are ND; data was reported.

(CCB 550-320655/23), (CCB 550-320655/44), (MB 550-320655/28) and (MB 550-320655/6)

Method SM5310B: The following blanks have an RPD >10% for consecutive replicates. Results are ND; data was reported.

(CCB 550-320776/21), (CCB 550-320776/33) and (MB 550-320776/5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217871-1	CH-CCR-M44D-0424	Water	05/02/24 12:00	05/03/24 10:10
550-217871-2	CH-CCR-FD06-0424	Water	05/02/24 16:20	05/03/24 10:10
550-217871-3	CH-CCR-M67A-0424	Water	04/29/24 17:19	05/03/24 10:10
550-217871-4	CH-CCR-M67A-0424	Water	04/29/24 17:19	05/03/24 10:10
550-217871-5	CH-CCR-FAP-0424	Water	05/02/24 10:58	05/03/24 10:10
550-217871-6	CH-CCR-FAP-0424	Water	05/02/24 10:58	05/03/24 10:10
550-217871-7	CH-CCR-Geronimo-0424	Water	05/02/24 15:40	05/03/24 10:10
550-217871-8	CH-CCR-Geronimo-0424	Water	05/02/24 15:40	05/03/24 10:10
550-217871-9	CH-CCR-GeronimoD-0424	Water	05/02/24 14:48	05/03/24 10:10
550-217871-10	CH-CCR-GeronimoD-0424	Water	05/02/24 14:48	05/03/24 10:10
550-217871-11	CH-CCR-HuntB-0424	Water	05/02/24 16:34	05/03/24 10:10
550-217871-12	CH-CCR-HuntB-0424	Water	05/02/24 16:34	05/03/24 10:10
550-217871-13	CH-CCR-EW01-0424	Water	05/02/24 14:28	05/03/24 10:10
550-217871-14	CH-CCR-EW01-0424	Water	05/02/24 14:28	05/03/24 10:10
550-217871-15	CH-CCR-EW02-0424	Water	05/02/24 15:04	05/03/24 10:10
550-217871-16	CH-CCR-EW02-0424	Water	05/02/24 15:04	05/03/24 10:10
550-217871-17	CH-CCR-EW03-0424	Water	05/02/24 15:20	05/03/24 10:10
550-217871-18	CH-CCR-EW03-0424	Water	05/02/24 15:20	05/03/24 10:10
550-217871-19	CH-CCR-EW04-0424	Water	05/02/24 16:10	05/03/24 10:10
550-217871-20	CH-CCR-EW04-0424	Water	05/02/24 16:10	05/03/24 10:10
550-217871-21	CH-CCR-GSX1R-0424	Water	05/02/24 15:54	05/03/24 10:10
550-217871-22	CH-CCR-GSX1R-0424	Water	05/02/24 15:54	05/03/24 10:10
550-217871-23	CH-CCR-EB01-0424	Water	05/02/24 17:00	05/03/24 10:10
550-217871-24	CH-CCR-EB01-0424	Water	05/02/24 17:00	05/03/24 10:10

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-M44D-0424 — Lab Sample ID: 550-217871-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1000	D2	40		mg/L	20		300.0	Total/NA
Fluoride	0.62		0.40		mg/L	1		300.0	Total/NA
Sulfate	290	D2	40		mg/L	20		300.0	Total/NA
Boron	0.27		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	93		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	45	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0011		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.020		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0017	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	2900	R8	40		mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-FD06-0424 — Lab Sample ID: 550-217871-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1000	D2	40		mg/L	20		300.0	Total/NA
Fluoride	0.69		0.40		mg/L	1		300.0	Total/NA
Sulfate	280	D2	40		mg/L	20		300.0	Total/NA
Boron	0.27		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	92		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	25	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0011		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.020		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0017	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	2200		40		mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.4	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-M67A-0424 — Lab Sample ID: 550-217871-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	2.2		0.10		mg/L	1		200.7	Dissolved
Manganese	1.6		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.6		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	4.9		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	0.92		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.92		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.92		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-M67A-0424 — Lab Sample ID: 550-217871-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	1600	D2	100		mg/L	50		300.0	Total/NA
Fluoride	0.64		0.40		mg/L	1		300.0	Total/NA
Sulfate	1400	D2	100		mg/L	50		300.0	Total/NA
Boron	0.37		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	560		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	3.6		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	240		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.6		0.010		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M67A-0424 (Continued) — Lab Sample ID: 550-217871-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Sodium	960		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	120	T5	20		ug/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0051		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.021		0.00050		mg/L	1		200.8 LL	Total/NA
Chromium	0.0013		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0054		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0019	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.30		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	240		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	240		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	4700		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.1	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: CH-CCR-FAP-0424 — Lab Sample ID: 550-217871-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	59		1.0		mg/L	100		200.7	Dissolved
Arsenic	880		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	110	D2	25		mg/L	50		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	110	D2	25		mg/L	50		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	110	D2	25		mg/L	50		SM 5310B	Dissolved

Client Sample ID: CH-CCR-FAP-0424 — Lab Sample ID: 550-217871-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	11000	D2	2000		mg/L	1000		300.0	Total/NA
Sulfate	5800	D2	2000		mg/L	1000		300.0	Total/NA
Boron	830		5.0		mg/L	100		200.7 Rev 4.4	Total/NA
Calcium	490		200		mg/L	100		200.7 Rev 4.4	Total/NA
Magnesium	14000		200		mg/L	100		200.7 Rev 4.4	Total/NA
Manganese	37		1.0		mg/L	100		200.7 Rev 4.4	Total/NA
Potassium	630		50		mg/L	100		200.7 Rev 4.4	Total/NA
Sodium	35000		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	8600	T5	1000		ug/L	50		200.7 Rev 4.4	Total Recoverable
Antimony	0.11		0.020		mg/L	20		200.8 LL	Total/NA
Arsenic	0.90		0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.095		0.010		mg/L	20		200.8 LL	Total/NA
Chromium	0.020		0.020		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.49	T5	0.010		mg/L	20		200.8 LL	Total/NA
Selenium	0.097		0.010		mg/L	20		200.8 LL	Total/NA
Ammonia	2.4	D2	0.10		mg/L	2		350.1	Total/NA
Alkalinity as CaCO3	720		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	720		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	120000		1000		mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	110		20		mg/L	40		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	110		20		mg/L	40		SM 5310B	Total/NA
Total Organic Carbon - Quad	110		20		mg/L	40		SM 5310B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-Geronimo-0424 — Lab Sample ID: 550-217871-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.23		0.10		mg/L	1		200.7	Dissolved
Manganese	0.15		0.010		mg/L	1		200.7	Dissolved
Arsenic	36		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	2.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.6		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.6		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-Geronimo-0424 — Lab Sample ID: 550-217871-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	6700	D2	400		mg/L	200		300.0	Total/NA
Fluoride	6.1		0.40		mg/L	1		300.0	Total/NA
Sulfate	4000	D2	400		mg/L	200		300.0	Total/NA
Boron	62		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	860		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.79		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	590		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.17		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	65		50		mg/L	100		200.7 Rev 4.4	Total/NA
Sodium	7100		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	390	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.045		0.010		mg/L	20		200.8 LL	Total/NA
Chromium	0.049		0.020		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.032	T5	0.010		mg/L	20		200.8 LL	Total/NA
Nitrate Nitrite as N	0.37		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	69		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	69		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	15000		200		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.2	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	2.4		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	2.4		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	2.4		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-GeronimoD-0424 — Lab Sample ID: 550-217871-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.15		0.10		mg/L	1		200.7	Dissolved
Arsenic	29		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	4.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	4.5		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	4.5		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-GeronimoD-0424 — Lab Sample ID: 550-217871-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	8000	D2	400		mg/L	200		300.0	Total/NA
Fluoride	5.9		0.40		mg/L	1		300.0	Total/NA
Sulfate	4600	D2	400		mg/L	200		300.0	Total/NA
Boron	74		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	890		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	3.2		0.10		mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

Client Sample ID: CH-CCR-GeronimoD-0424 (Continued) — Lab Sample ID: 550-217871-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Magnesium	720		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.035		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	60		50		mg/L	100		200.7 Rev 4.4	Total/NA
Sodium	7200		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	480	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.044		0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.014		0.010		mg/L	20		200.8 LL	Total/NA
Chromium	0.12		0.020		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.048	T5	0.010		mg/L	20		200.8 LL	Total/NA
Nitrate Nitrite as N	0.64		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	21000		200		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	4.7		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	4.7		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	4.7		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-HuntB-0424 — Lab Sample ID: 550-217871-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	1.3		0.010		mg/L	1		200.7	Dissolved
Arsenic	23		10		ug/L	20		200.8 LL	Dissolved
Dissolved Organic Carbon	2.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.0		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.0		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-HuntB-0424 — Lab Sample ID: 550-217871-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	5000	D2	200		mg/L	100		300.0	Total/NA
Fluoride	3.3		0.40		mg/L	1		300.0	Total/NA
Sulfate	3100	D2	200		mg/L	100		300.0	Total/NA
Boron	38		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	870		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.13		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	300		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.3		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3900		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	350	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.023		0.010		mg/L	20		200.8 LL	Total/NA
Barium	0.011		0.010		mg/L	20		200.8 LL	Total/NA
Molybdenum	0.30	T5	0.010		mg/L	20		200.8 LL	Total/NA
Ammonia	0.48		0.050		mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.16		0.10		mg/L	1		353.2	Total/NA
Alkalinity as CaCO3	52		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	52		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000		200		mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-HuntB-0424 (Continued) — Lab Sample ID: 550-217871-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Temperature	12.0	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	2.0		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	2.0		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	2.0		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-EW01-0424 — Lab Sample ID: 550-217871-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	2.9		0.10		mg/L	1		200.7	Dissolved
Manganese	6.0		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.0		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	1.7		0.50		ug/L	1		200.8 LL	Dissolved
Selenium	2.1		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	2.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.2		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-EW01-0424 — Lab Sample ID: 550-217871-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3900	D2	200		mg/L	100		300.0	Total/NA
Fluoride	0.84		0.40		mg/L	1		300.0	Total/NA
Sulfate	2600	D2	200		mg/L	100		300.0	Total/NA
Boron	4.2		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	880	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	3.3		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	300	M3	2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	5.8		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.6	M1	0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2600	M3	50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	340	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0021		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.017		0.00050		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0017		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0085	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0023		0.00050		mg/L	1		200.8 LL	Total/NA
Ammonia	0.11		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	9200		100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.8	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	2.0		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	2.0		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	2.0		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-EW02-0424 — Lab Sample ID: 550-217871-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.17		0.10		mg/L	1		200.7	Dissolved
Manganese	2.3		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.2		0.50		ug/L	1		200.8 LL	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-EW02-0424 (Continued) — Lab Sample ID: 550-217871-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.92		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	2.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.2		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-EW02-0424 — Lab Sample ID: 550-217871-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3600	D2	200		mg/L	100		300.0	Total/NA
Fluoride	1.1		0.40		mg/L	1		300.0	Total/NA
Sulfate	3100	D2	200		mg/L	100		300.0	Total/NA
Boron	8.8		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	740		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.36		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	320		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.3		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.9		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2700		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	480	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0024		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.0098		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00027		0.00010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.00091		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.045	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.013		0.00050		mg/L	1		200.8 LL	Total/NA
Thallium	0.00011		0.00010		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	10000		100		mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.1	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	2.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	2.1		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	2.1		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-EW03-0424 — Lab Sample ID: 550-217871-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.12		0.10		mg/L	1		200.7	Dissolved
Manganese	0.48		0.010		mg/L	1		200.7	Dissolved
Arsenic	2.3		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	1.1		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	2.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.3		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.3		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-EW03-0424 — Lab Sample ID: 550-217871-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3800	D2	400		mg/L	200		300.0	Total/NA
Fluoride	1.1		0.40		mg/L	1		300.0	Total/NA
Sulfate	3100	D2	400		mg/L	200		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-EW03-0424 (Continued) — Lab Sample ID: 550-217871-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	14		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	760		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	25		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	350		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	18		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3400		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	450	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.026		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.011		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00036		0.00010		mg/L	1		200.8 LL	Total/NA
Chromium	0.022		0.0010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0021		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.24	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.017		0.00050		mg/L	1		200.8 LL	Total/NA
Thallium	0.00013		0.00010		mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000		100		mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	2.3		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	2.3		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	2.3		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-EW04-0424 — Lab Sample ID: 550-217871-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Manganese	1.0		0.010		mg/L	1		200.7	Dissolved
Arsenic	5.8		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	3.6		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	1.9		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	1.9		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	1.9		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-EW04-0424 — Lab Sample ID: 550-217871-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	4900	D2	400		mg/L	200		300.0	Total/NA
Fluoride	3.4		0.40		mg/L	1		300.0	Total/NA
Sulfate	2800	D2	400		mg/L	200		300.0	Total/NA
Boron	32		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	820		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	190		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.96		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	25		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	4400		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	340	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0057		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.011		0.00050		mg/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-EW04-0424 (Continued) — Lab Sample ID: 550-217871-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0035		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.37	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0020		0.00050		mg/L	1		200.8 LL	Total/NA
Thallium	0.00023		0.00010		mg/L	1		200.8 LL	Total/NA
Ammonia	1.1		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	43		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	43		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000		100		mg/L	1		SM 2540C	Total/NA
pH	7.8	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	11.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.7		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.7		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.7		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-GSX1R-0424 — Lab Sample ID: 550-217871-21

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.10		0.10		mg/L	1		200.7	Dissolved
Manganese	1.0		0.010		mg/L	1		200.7	Dissolved
Arsenic	3.6		0.50		ug/L	1		200.8 LL	Dissolved
Cobalt	3.3		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	2.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	2.2		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	2.2		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-GSX1R-0424 — Lab Sample ID: 550-217871-22

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	3900	D2	400		mg/L	200		300.0	Total/NA
Fluoride	2.0		0.40		mg/L	1		300.0	Total/NA
Sulfate	2900	D2	400		mg/L	200		300.0	Total/NA
Boron	24		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	880		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.36		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	290		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	32		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3500		50		mg/L	100		200.7 Rev 4.4	Total/NA
Lithium	420	T5	200		ug/L	10		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0043		0.00050		mg/L	1		200.8 LL	Total/NA
Barium	0.010		0.00050		mg/L	1		200.8 LL	Total/NA
Cadmium	0.00015		0.00010		mg/L	1		200.8 LL	Total/NA
Cobalt	0.0033		0.00050		mg/L	1		200.8 LL	Total/NA
Molybdenum	0.49	T5	0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.0048		0.00050		mg/L	1		200.8 LL	Total/NA
Thallium	0.00016		0.00010		mg/L	1		200.8 LL	Total/NA
Ammonia	0.31		0.050		mg/L	1		350.1	Total/NA
Alkalinity as CaCO3	76		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	76		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000		100		mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-GSX1R-0424 (Continued) — Lab Sample ID: 550-217871-22

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Temperature	11.7	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA
Total Organic Carbon	1.8		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Duplicates	1.8		0.50		mg/L	1		SM 5310B	Total/NA
Total Organic Carbon - Quad	1.8		0.50		mg/L	1		SM 5310B	Total/NA

Client Sample ID: CH-CCR-EB01-0424 — Lab Sample ID: 550-217871-23

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.82		0.50		ug/L	1		200.8 LL	Dissolved
Dissolved Organic Carbon	0.69		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Duplicate	0.72		0.50		mg/L	1		SM 5310B	Dissolved
Dissolved Organic Carbon - Quad	0.69		0.50		mg/L	1		SM 5310B	Dissolved

Client Sample ID: CH-CCR-EB01-0424 — Lab Sample ID: 550-217871-24

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00088		0.00050		mg/L	1		200.8 LL	Total/NA
Selenium	0.00067		0.00050		mg/L	1		200.8 LL	Total/NA
pH	5.7	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	12.6	H5 T5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CH-CCR-M44D-0424

Lab Sample ID: 550-217871-1
Date Collected: 05/02/24 12:00
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1000**	**D2**	40		mg/L			05/06/24 15:33	20
Fluoride	**0.62**		0.40		mg/L			05/06/24 15:15	1
Sulfate	**290**	**D2**	40		mg/L			05/06/24 15:33	20

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.27**		0.050		mg/L		05/06/24 07:56	05/11/24 20:54	1
Calcium	**93**		2.0		mg/L		05/06/24 07:56	05/11/24 20:54	1
Beryllium	ND		0.0010		mg/L		05/06/24 07:56	05/11/24 20:54	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**45**	**T5**	20		ug/L		05/07/24 08:42	05/14/24 19:38	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:45	05/09/24 13:31	1
Arsenic	**0.0011**		0.00050		mg/L		05/06/24 07:45	05/09/24 13:31	1
Barium	**0.020**		0.00050		mg/L		05/06/24 07:45	05/09/24 13:31	1
Cadmium	ND		0.00010		mg/L		05/06/24 07:45	05/09/24 13:31	1
Chromium	ND		0.0010		mg/L		05/06/24 07:45	05/09/24 13:31	1
Cobalt	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:31	1
Lead	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:31	1
Molybdenum	**0.0017**	**T5**	0.00050		mg/L		05/06/24 07:45	05/09/24 13:31	1
Selenium	ND		0.0050		mg/L		05/06/24 07:45	05/10/24 15:41	10
Thallium	ND		0.00010		mg/L		05/06/24 07:45	05/09/24 13:31	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2900**	**R8**	40		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.2**	**H5**	1.7		SU			05/08/24 14:23	1
Temperature (SM 4500 H+ B)	**11.4**	**H5 T5**	0.1		Degrees C			05/08/24 14:23	1

Client Sample ID: CH-CCR-FD06-0424

Lab Sample ID: 550-217871-2
Date Collected: 05/02/24 16:20
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1000**	**D2**	40		mg/L			05/06/24 16:47	20
Fluoride	**0.69**		0.40		mg/L			05/06/24 16:28	1
Sulfate	**280**	**D2**	40		mg/L			05/06/24 16:47	20

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.27**		0.050		mg/L		05/06/24 07:56	05/11/24 20:58	1
Calcium	**92**		2.0		mg/L		05/06/24 07:56	05/11/24 20:58	1

Client Sample ID: CH-CCR-FD06-0424

Lab Sample ID: 550-217871-2

Date Collected: 05/02/24 16:20

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		05/06/24 07:56	05/11/24 20:58	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**25**	**T5**	20		ug/L		05/07/24 08:42	05/15/24 16:11	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:45	05/09/24 13:33	1
Arsenic	**0.0011**		0.00050		mg/L		05/06/24 07:45	05/09/24 13:33	1
Barium	**0.020**		0.00050		mg/L		05/06/24 07:45	05/09/24 13:33	1
Cadmium	ND		0.00010		mg/L		05/06/24 07:45	05/09/24 13:33	1
Chromium	ND		0.0010		mg/L		05/06/24 07:45	05/09/24 13:33	1
Cobalt	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:33	1
Lead	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:33	1
Molybdenum	**0.0017**	**T5**	0.00050		mg/L		05/06/24 07:45	05/09/24 13:33	1
Selenium	ND		0.0050		mg/L		05/06/24 07:45	05/10/24 15:43	10
Thallium	ND		0.00010		mg/L		05/06/24 07:45	05/09/24 13:33	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2200**		40		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.2**	**H5**	1.7		SU			05/08/24 14:41	1
Temperature (SM 4500 H+ B)	**10.4**	**H5 T5**	0.1		Degrees C			05/08/24 14:41	1

Client Sample ID: CH-CCR-M67A-0424

Lab Sample ID: 550-217871-3

Date Collected: 04/29/24 17:19

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**2.2**		0.10		mg/L		05/06/24 07:56	05/11/24 21:01	1
Manganese	**1.6**		0.010		mg/L		05/06/24 07:56	05/11/24 21:01	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.6**		0.50		ug/L		05/06/24 07:45	05/09/24 13:35	1
Cobalt	**4.9**		0.50		ug/L		05/06/24 07:45	05/09/24 13:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.92**		0.50		mg/L			05/13/24 20:38	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.92**		0.50		mg/L			05/13/24 20:38	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.92**		0.50		mg/L			05/13/24 20:38	1

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-M67A-0424

Date Collected: 04/29/24 17:19
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-4

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1600**	**D2**	100		mg/L			05/06/24 17:24	50
Fluoride	**0.64**		0.40		mg/L			05/06/24 17:05	1
Sulfate	**1400**	**D2**	100		mg/L			05/06/24 17:24	50

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.37**		0.050		mg/L		05/06/24 07:56	05/11/24 21:05	1
Calcium	**560**		2.0		mg/L		05/06/24 07:56	05/11/24 21:05	1
Iron	**3.6**		0.10		mg/L		05/06/24 07:56	05/11/24 21:05	1
Magnesium	**240**		2.0		mg/L		05/06/24 07:56	05/11/24 21:05	1
Manganese	**1.6**		0.010		mg/L		05/06/24 07:56	05/11/24 21:05	1
Potassium	ND		50		mg/L		05/06/24 07:56	05/12/24 15:38	100
Sodium	**960**		50		mg/L		05/06/24 07:56	05/12/24 15:38	100
Beryllium	ND		0.0010		mg/L		05/06/24 07:56	05/11/24 21:05	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**120**	**T5**	20		ug/L		05/07/24 08:42	05/15/24 16:16	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:45	05/09/24 13:37	1
Arsenic	**0.0051**		0.00050		mg/L		05/06/24 07:45	05/09/24 13:37	1
Barium	**0.021**		0.00050		mg/L		05/06/24 07:45	05/09/24 13:37	1
Cadmium	ND		0.00010		mg/L		05/06/24 07:45	05/09/24 13:37	1
Chromium	**0.0013**		0.0010		mg/L		05/06/24 07:45	05/09/24 13:37	1
Cobalt	**0.0054**		0.00050		mg/L		05/06/24 07:45	05/09/24 13:37	1
Lead	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:37	1
Molybdenum	**0.0019**	**T5**	0.00050		mg/L		05/06/24 07:45	05/09/24 13:37	1
Selenium	ND		0.0050		mg/L		05/06/24 07:45	05/10/24 15:45	10
Thallium	ND		0.00010		mg/L		05/06/24 07:45	05/09/24 13:37	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 15:45	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.30**		0.050		mg/L			05/17/24 15:02	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/15/24 18:37	1
Alkalinity as CaCO3 (SM 2320B)	**240**		6.0		mg/L			05/08/24 14:05	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/08/24 14:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**240**		6.0		mg/L			05/08/24 14:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/08/24 14:05	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/08/24 14:05	1
Total Dissolved Solids (SM 2540C)	**4700**		100		mg/L			05/06/24 11:18	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			05/08/24 14:42	1
Temperature (SM 4500 H+ B)	**10.1**	**H5 T5**	0.1		Degrees C			05/08/24 14:42	1

Client Sample ID: CH-CCR-FAP-0424

Date Collected: 05/02/24 10:58
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-5

Matrix: Water

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		10		mg/L		05/06/24 07:56	05/12/24 15:41	100
Manganese	**59**		1.0		mg/L		05/06/24 07:56	05/12/24 15:41	100

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**880**		10		ug/L		05/06/24 07:45	05/09/24 14:00	20
Cobalt	ND		10		ug/L		05/06/24 07:45	05/09/24 14:00	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**110**	**D2**	25		mg/L			05/13/24 16:55	50
Dissolved Organic Carbon - Duplicate (SM 5310B)	**110**	**D2**	25		mg/L			05/13/24 16:55	50
Dissolved Organic Carbon - Quad (SM 5310B)	**110**	**D2**	25		mg/L			05/13/24 16:55	50

Client Sample ID: CH-CCR-FAP-0424

Date Collected: 05/02/24 10:58
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-6

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11000**	**D2**	2000		mg/L			05/08/24 10:59	1000
Fluoride	ND	D1 D5	400		mg/L			05/08/24 10:59	1000
Nitrate Nitrite as N	ND	D1 D5 M2	0.25		mg/L			05/20/24 16:06	5
Sulfate	**5800**	**D2**	2000		mg/L			05/08/24 10:59	1000

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**830**		5.0		mg/L		05/06/24 07:56	05/12/24 15:45	100
Calcium	**490**		200		mg/L		05/06/24 07:56	05/12/24 15:45	100
Iron	ND		10		mg/L		05/06/24 07:56	05/12/24 15:45	100
Magnesium	**14000**		200		mg/L		05/06/24 07:56	05/12/24 15:45	100
Manganese	**37**		1.0		mg/L		05/06/24 07:56	05/12/24 15:45	100
Potassium	**630**		50		mg/L		05/06/24 07:56	05/12/24 15:45	100
Sodium	**35000**		50		mg/L		05/06/24 07:56	05/12/24 15:45	100
Beryllium	ND		0.10		mg/L		05/06/24 07:56	05/12/24 15:45	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**8600**	**T5**	1000		ug/L		05/07/24 08:42	05/15/24 16:21	50

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.11**		0.020		mg/L		05/06/24 07:45	05/09/24 14:02	20
Arsenic	**0.90**		0.010		mg/L		05/06/24 07:45	05/09/24 14:02	20
Barium	**0.095**		0.010		mg/L		05/06/24 07:45	05/09/24 14:02	20
Cadmium	ND		0.0020		mg/L		05/06/24 07:45	05/09/24 14:02	20
Chromium	**0.020**		0.020		mg/L		05/06/24 07:45	05/09/24 14:02	20
Cobalt	ND		0.010		mg/L		05/06/24 07:45	05/09/24 14:02	20
Lead	ND		0.010		mg/L		05/06/24 07:45	05/09/24 14:02	20

Client Sample ID: CH-CCR-FAP-0424

Lab Sample ID: 550-217871-6

Date Collected: 05/02/24 10:58

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	**0.49**	**T5**	0.010		mg/L		05/06/24 07:45	05/09/24 14:02	20
Selenium	**0.097**		0.010		mg/L		05/06/24 07:45	05/10/24 15:33	20
Thallium	ND		0.0020		mg/L		05/06/24 07:45	05/09/24 14:02	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 15:47	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**2.4**	**D2**	0.10		mg/L			05/17/24 16:51	2
Alkalinity as CaCO3 (SM 2320B)	**720**		6.0		mg/L			05/09/24 11:10	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 11:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**720**		6.0		mg/L			05/09/24 11:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:10	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:10	1
Total Dissolved Solids (SM 2540C)	**120000**		1000		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.1**	**H5**	1.7		SU			05/08/24 14:44	1
Temperature (SM 4500 H+ B)	**10.2**	**H5 T5**	0.1		Degrees C			05/08/24 14:44	1
Total Organic Carbon (SM 5310B)	**110**		20		mg/L			05/09/24 20:20	40
Total Organic Carbon - Duplicates (SM 5310B)	**110**		20		mg/L			05/09/24 20:20	40
Total Organic Carbon - Quad (SM 5310B)	**110**		20		mg/L			05/09/24 20:20	40

Client Sample ID: CH-CCR-Geronimo-0424

Lab Sample ID: 550-217871-7

Date Collected: 05/02/24 15:40

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.23**		0.10		mg/L		05/06/24 07:56	05/11/24 21:22	1
Manganese	**0.15**		0.010		mg/L		05/06/24 07:56	05/11/24 21:22	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**36**		10		ug/L		05/06/24 07:45	05/09/24 14:04	20
Cobalt	ND		10		ug/L		05/06/24 07:45	05/09/24 14:04	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.6**		0.50		mg/L			05/13/24 20:50	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.6**		0.50		mg/L			05/13/24 20:50	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.6**		0.50		mg/L			05/13/24 20:50	1

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-Geronimo-0424

Date Collected: 05/02/24 15:40
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-8

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6700**	**D2**	400		mg/L			05/06/24 20:42	200
Fluoride	**6.1**		0.40		mg/L			05/06/24 20:24	1
Sulfate	**4000**	**D2**	400		mg/L			05/06/24 20:42	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**62**		0.050		mg/L		05/06/24 07:56	05/11/24 21:25	1
Calcium	**860**		2.0		mg/L		05/06/24 07:56	05/11/24 21:25	1
Iron	**0.79**		0.10		mg/L		05/06/24 07:56	05/11/24 21:25	1
Magnesium	**590**		2.0		mg/L		05/06/24 07:56	05/11/24 21:25	1
Manganese	**0.17**		0.010		mg/L		05/06/24 07:56	05/11/24 21:25	1
Potassium	**65**		50		mg/L		05/06/24 07:56	05/12/24 15:48	100
Sodium	**7100**		50		mg/L		05/06/24 07:56	05/12/24 15:48	100
Beryllium	ND		0.0010		mg/L		05/06/24 07:56	05/11/24 21:25	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**390**	**T5**	200		ug/L		05/07/24 08:42	05/15/24 16:25	10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/06/24 07:45	05/09/24 14:30	20
Arsenic	**0.045**		0.010		mg/L		05/06/24 07:45	05/09/24 14:30	20
Barium	ND		0.010		mg/L		05/06/24 07:45	05/09/24 14:30	20
Cadmium	ND		0.0020		mg/L		05/06/24 07:45	05/09/24 14:30	20
Chromium	**0.049**		0.020		mg/L		05/06/24 07:45	05/09/24 14:30	20
Cobalt	ND		0.010		mg/L		05/06/24 07:45	05/09/24 14:30	20
Lead	ND		0.010		mg/L		05/06/24 07:45	05/09/24 14:30	20
Molybdenum	**0.032**	**T5**	0.010		mg/L		05/06/24 07:45	05/09/24 14:30	20
Selenium	ND		0.010		mg/L		05/06/24 07:45	05/10/24 15:35	20
Thallium	ND		0.0020		mg/L		05/06/24 07:45	05/09/24 14:30	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 15:49	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 15:18	1
Nitrate Nitrite as N (EPA 353.2)	**0.37**		0.10		mg/L			05/15/24 18:39	1
Alkalinity as CaCO3 (SM 2320B)	**69**		6.0		mg/L			05/09/24 11:21	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 11:21	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**69**		6.0		mg/L			05/09/24 11:21	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:21	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:21	1
Total Dissolved Solids (SM 2540C)	**15000**		200		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			05/08/24 14:46	1
Temperature (SM 4500 H+ B)	**11.2**	**H5 T5**	0.1		Degrees C			05/08/24 14:46	1

Client Sample ID: CH-CCR-Geronimo-0424

Lab Sample ID: 550-217871-8
Matrix: Water
Date Collected: 05/02/24 15:40
Date Received: 05/03/24 10:10

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (SM 5310B)	2.4		0.50		mg/L			05/09/24 20:50	1
Total Organic Carbon - Duplicates (SM 5310B)	2.4		0.50		mg/L			05/09/24 20:50	1
Total Organic Carbon - Quad (SM 5310B)	2.4		0.50		mg/L			05/09/24 20:50	1

Client Sample ID: CH-CCR-GeronimoD-0424

Lab Sample ID: 550-217871-9
Matrix: Water
Date Collected: 05/02/24 14:48
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.15		0.10		mg/L		05/06/24 07:56	05/11/24 21:28	1
Manganese	ND		0.010		mg/L		05/06/24 07:56	05/11/24 21:28	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	29		10		ug/L		05/06/24 07:45	05/09/24 14:32	20
Cobalt	ND		10		ug/L		05/06/24 07:45	05/09/24 14:32	20

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	4.5		0.50		mg/L			05/13/24 21:02	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	4.5		0.50		mg/L			05/13/24 21:02	1
Dissolved Organic Carbon - Quad (SM 5310B)	4.5		0.50		mg/L			05/13/24 21:02	1

Client Sample ID: CH-CCR-GeronimoD-0424

Lab Sample ID: 550-217871-10
Matrix: Water
Date Collected: 05/02/24 14:48
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8000	D2	400		mg/L			05/06/24 21:19	200
Fluoride	5.9		0.40		mg/L			05/06/24 21:01	1
Sulfate	4600	D2	400		mg/L			05/06/24 21:19	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	74		0.050		mg/L		05/06/24 07:56	05/11/24 21:32	1
Calcium	890		2.0		mg/L		05/06/24 07:56	05/11/24 21:32	1
Iron	3.2		0.10		mg/L		05/06/24 07:56	05/11/24 21:32	1
Magnesium	720		2.0		mg/L		05/06/24 07:56	05/11/24 21:32	1
Manganese	0.035		0.010		mg/L		05/06/24 07:56	05/11/24 21:32	1
Potassium	60		50		mg/L		05/06/24 07:56	05/12/24 15:51	100
Sodium	7200		50		mg/L		05/06/24 07:56	05/12/24 15:51	100
Beryllium	ND		0.0010		mg/L		05/06/24 07:56	05/11/24 21:32	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	480	T5	200		ug/L		05/07/24 08:42	05/15/24 16:30	10

Client Sample ID: CH-CCR-GeronimoD-0424

Lab Sample ID: 550-217871-10
Date Collected: 05/02/24 14:48
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/06/24 07:45	05/09/24 14:34	20
Arsenic	**0.044**		0.010		mg/L		05/06/24 07:45	05/09/24 14:34	20
Barium	**0.014**		0.010		mg/L		05/06/24 07:45	05/09/24 14:34	20
Cadmium	ND		0.0020		mg/L		05/06/24 07:45	05/09/24 14:34	20
Chromium	**0.12**		0.020		mg/L		05/06/24 07:45	05/09/24 14:34	20
Cobalt	ND		0.010		mg/L		05/06/24 07:45	05/09/24 14:34	20
Lead	ND		0.010		mg/L		05/06/24 07:45	05/09/24 14:34	20
Molybdenum	**0.048**	**T5**	0.010		mg/L		05/06/24 07:45	05/09/24 14:34	20
Selenium	ND		0.010		mg/L		05/06/24 07:45	05/10/24 15:37	20
Thallium	ND		0.0020		mg/L		05/06/24 07:45	05/09/24 14:34	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 15:23	1
Nitrate Nitrite as N (EPA 353.2)	**0.64**		0.10		mg/L			05/15/24 18:41	1
Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			05/09/24 11:26	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 11:26	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			05/09/24 11:26	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:26	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:26	1
Total Dissolved Solids (SM 2540C)	**21000**		200		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.5**	**H5**	1.7		SU			05/08/24 14:47	1
Temperature (SM 4500 H+ B)	**11.6**	**H5 T5**	0.1		Degrees C			05/08/24 14:47	1
Total Organic Carbon (SM 5310B)	**4.7**		0.50		mg/L			05/09/24 21:02	1
Total Organic Carbon - Duplicates (SM 5310B)	**4.7**		0.50		mg/L			05/09/24 21:02	1
Total Organic Carbon - Quad (SM 5310B)	**4.7**		0.50		mg/L			05/09/24 21:02	1

Client Sample ID: CH-CCR-HuntB-0424

Lab Sample ID: 550-217871-11
Date Collected: 05/02/24 16:34
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/06/24 07:56	05/11/24 21:35	1
Manganese	**1.3**		0.010		mg/L		05/06/24 07:56	05/11/24 21:35	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**23**		10		ug/L		05/06/24 07:45	05/09/24 14:36	20
Cobalt	ND		10		ug/L		05/06/24 07:45	05/09/24 14:36	20

Client Sample ID: CH-CCR-HuntB-0424

Lab Sample ID: 550-217871-11
Matrix: Water
Date Collected: 05/02/24 16:34
Date Received: 05/03/24 10:10

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	2.0		0.50		mg/L			05/13/24 21:15	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	2.0		0.50		mg/L			05/13/24 21:15	1
Dissolved Organic Carbon - Quad (SM 5310B)	2.0		0.50		mg/L			05/13/24 21:15	1

Client Sample ID: CH-CCR-HuntB-0424

Lab Sample ID: 550-217871-12
Matrix: Water
Date Collected: 05/02/24 16:34
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5000	D2	200		mg/L			05/06/24 21:56	100
Fluoride	3.3		0.40		mg/L			05/06/24 21:37	1
Sulfate	3100	D2	200		mg/L			05/06/24 21:56	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	38		0.050		mg/L		05/06/24 07:56	05/11/24 21:39	1
Calcium	870		2.0		mg/L		05/06/24 07:56	05/11/24 21:39	1
Iron	0.13		0.10		mg/L		05/06/24 07:56	05/11/24 21:39	1
Magnesium	300		2.0		mg/L		05/06/24 07:56	05/11/24 21:39	1
Manganese	1.3		0.010		mg/L		05/06/24 07:56	05/11/24 21:39	1
Potassium	ND		50		mg/L		05/06/24 07:56	05/12/24 15:55	100
Sodium	3900		50		mg/L		05/06/24 07:56	05/12/24 15:55	100
Beryllium	ND		0.0010		mg/L		05/06/24 07:56	05/11/24 21:39	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	350	T5	200		ug/L		05/07/24 08:42	05/15/24 16:34	10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020		mg/L		05/06/24 07:45	05/09/24 14:38	20
Arsenic	0.023		0.010		mg/L		05/06/24 07:45	05/09/24 14:38	20
Barium	0.011		0.010		mg/L		05/06/24 07:45	05/09/24 14:38	20
Cadmium	ND		0.0020		mg/L		05/06/24 07:45	05/09/24 14:38	20
Chromium	ND		0.020		mg/L		05/06/24 07:45	05/09/24 14:38	20
Cobalt	ND		0.010		mg/L		05/06/24 07:45	05/09/24 14:38	20
Lead	ND		0.010		mg/L		05/06/24 07:45	05/09/24 14:38	20
Molybdenum	0.30	T5	0.010		mg/L		05/06/24 07:45	05/09/24 14:38	20
Selenium	ND		0.010		mg/L		05/06/24 07:45	05/10/24 15:39	20
Thallium	ND		0.0020		mg/L		05/06/24 07:45	05/09/24 14:38	20

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 15:53	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.48		0.050		mg/L			05/17/24 15:24	1

Client Sample ID: CH-CCR-HuntB-0424

Lab Sample ID: 550-217871-12
Matrix: Water
Date Collected: 05/02/24 16:34
Date Received: 05/03/24 10:10

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N (EPA 353.2)	0.16		0.10		mg/L			05/15/24 18:43	1
Alkalinity as CaCO3 (SM 2320B)	52		6.0		mg/L			05/09/24 11:32	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 11:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	52		6.0		mg/L			05/09/24 11:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:32	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:32	1
Total Dissolved Solids (SM 2540C)	12000		200		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	7.5	H5	1.7		SU			05/08/24 14:48	1
Temperature (SM 4500 H+ B)	12.0	H5 T5	0.1		Degrees C			05/08/24 14:48	1
Total Organic Carbon (SM 5310B)	2.0		0.50		mg/L			05/09/24 21:16	1
Total Organic Carbon - Duplicates (SM 5310B)	2.0		0.50		mg/L			05/09/24 21:16	1
Total Organic Carbon - Quad (SM 5310B)	2.0		0.50		mg/L			05/09/24 21:16	1

Client Sample ID: CH-CCR-EW01-0424

Lab Sample ID: 550-217871-13
Matrix: Water
Date Collected: 05/02/24 14:28
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	2.9		0.10		mg/L		05/06/24 08:01	05/11/24 22:30	1
Manganese	6.0		0.010		mg/L		05/06/24 08:01	05/11/24 22:30	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0		0.50		ug/L		05/06/24 07:50	05/07/24 15:44	1
Cobalt	1.7		0.50		ug/L		05/06/24 07:50	05/07/24 15:44	1
Selenium	2.1		0.50		ug/L		05/06/24 07:50	05/09/24 11:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	2.2		0.50		mg/L			05/13/24 21:29	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	2.2		0.50		mg/L			05/13/24 21:29	1
Dissolved Organic Carbon - Quad (SM 5310B)	2.2		0.50		mg/L			05/13/24 21:29	1

Client Sample ID: CH-CCR-EW01-0424

Lab Sample ID: 550-217871-14
Matrix: Water
Date Collected: 05/02/24 14:28
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3900	D2	200		mg/L			05/06/24 22:33	100
Fluoride	0.84		0.40		mg/L			05/06/24 22:14	1
Sulfate	2600	D2	200		mg/L			05/06/24 22:33	100

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-EW01-0424

Date Collected: 05/02/24 14:28
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-14

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.2**		0.050		mg/L		05/06/24 08:01	05/11/24 22:26	1
Calcium	**880**	**M3**	2.0		mg/L		05/06/24 08:01	05/11/24 22:26	1
Iron	**3.3**		0.10		mg/L		05/06/24 08:01	05/11/24 22:26	1
Magnesium	**300**	**M3**	2.0		mg/L		05/06/24 08:01	05/11/24 22:26	1
Manganese	**5.8**		0.010		mg/L		05/06/24 08:01	05/11/24 22:26	1
Potassium	**6.6**	**M1**	0.50		mg/L		05/06/24 08:01	05/11/24 22:26	1
Sodium	**2600**	**M3**	50		mg/L		05/06/24 08:01	05/12/24 16:43	100
Beryllium	ND		0.0010		mg/L		05/06/24 08:01	05/11/24 22:26	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**340**	**T5**	200		ug/L		05/07/24 08:42	05/15/24 16:39	10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 15:46	1
Arsenic	**0.0021**		0.00050		mg/L		05/06/24 07:50	05/07/24 15:46	1
Barium	**0.017**		0.00050		mg/L		05/06/24 07:50	05/07/24 15:46	1
Cadmium	ND		0.00010		mg/L		05/06/24 07:50	05/07/24 15:46	1
Chromium	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 15:46	1
Cobalt	**0.0017**		0.00050		mg/L		05/06/24 07:50	05/07/24 15:46	1
Lead	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 15:46	1
Molybdenum	**0.0085**	**T5**	0.00050		mg/L		05/06/24 07:50	05/07/24 15:46	1
Selenium	**0.0023**		0.00050		mg/L		05/06/24 07:50	05/09/24 11:29	1
Thallium	ND		0.00010		mg/L		05/06/24 07:50	05/07/24 15:46	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 15:55	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.11**		0.050		mg/L			05/17/24 15:26	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/15/24 18:45	1
Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			05/09/24 11:37	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 11:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			05/09/24 11:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:37	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 11:37	1
Total Dissolved Solids (SM 2540C)	**9200**		100		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			05/08/24 14:49	1
Temperature (SM 4500 H+ B)	**11.8**	**H5 T5**	0.1		Degrees C			05/08/24 14:49	1
Total Organic Carbon (SM 5310B)	**2.0**		0.50		mg/L			05/09/24 21:28	1
Total Organic Carbon - Duplicates (SM 5310B)	**2.0**		0.50		mg/L			05/09/24 21:28	1
Total Organic Carbon - Quad (SM 5310B)	**2.0**		0.50		mg/L			05/09/24 21:28	1

Client Sample ID: CH-CCR-EW02-0424

Lab Sample ID: 550-217871-15

Date Collected: 05/02/24 15:04

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.17		0.10		mg/L		05/06/24 08:01	05/11/24 22:33	1
Manganese	2.3		0.010		mg/L		05/06/24 08:01	05/11/24 22:33	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.2		0.50		ug/L		05/06/24 07:50	05/07/24 15:48	1
Cobalt	0.92		0.50		ug/L		05/06/24 07:50	05/07/24 15:48	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	2.2		0.50		mg/L			05/13/24 21:42	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	2.2		0.50		mg/L			05/13/24 21:42	1
Dissolved Organic Carbon - Quad (SM 5310B)	2.2		0.50		mg/L			05/13/24 21:42	1

Client Sample ID: CH-CCR-EW02-0424

Lab Sample ID: 550-217871-16

Date Collected: 05/02/24 15:04

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3600	D2	200		mg/L			05/06/24 23:09	100
Fluoride	1.1		0.40		mg/L			05/06/24 22:51	1
Sulfate	3100	D2	200		mg/L			05/06/24 23:09	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	8.8		0.050		mg/L		05/06/24 08:01	05/11/24 22:36	1
Calcium	740		2.0		mg/L		05/06/24 08:01	05/11/24 22:36	1
Iron	0.36		0.10		mg/L		05/06/24 08:01	05/11/24 22:36	1
Magnesium	320		2.0		mg/L		05/06/24 08:01	05/11/24 22:36	1
Manganese	2.3		0.010		mg/L		05/06/24 08:01	05/11/24 22:36	1
Potassium	5.9		0.50		mg/L		05/06/24 08:01	05/11/24 22:36	1
Sodium	2700		50		mg/L		05/06/24 08:01	05/12/24 16:47	100
Beryllium	ND		0.0010		mg/L		05/06/24 08:01	05/11/24 22:36	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	480	T5	200		ug/L		05/07/24 08:42	05/15/24 16:43	10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 15:50	1
Arsenic	0.0024		0.00050		mg/L		05/06/24 07:50	05/07/24 15:50	1
Barium	0.0098		0.00050		mg/L		05/06/24 07:50	05/07/24 15:50	1
Cadmium	0.00027		0.00010		mg/L		05/06/24 07:50	05/07/24 15:50	1
Chromium	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 15:50	1
Cobalt	0.00091		0.00050		mg/L		05/06/24 07:50	05/07/24 15:50	1
Lead	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 15:50	1
Molybdenum	0.045	T5	0.00050		mg/L		05/06/24 07:50	05/07/24 15:50	1

Client Sample ID: CH-CCR-EW02-0424

Lab Sample ID: 550-217871-16

Date Collected: 05/02/24 15:04
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**0.013**		0.00050		mg/L		05/06/24 07:50	05/09/24 11:31	1
Thallium	**0.00011**		0.00010		mg/L		05/06/24 07:50	05/07/24 15:50	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 15:57	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 15:27	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/15/24 19:09	1
Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			05/09/24 12:09	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 12:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**140**		6.0		mg/L			05/09/24 12:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:09	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:09	1
Total Dissolved Solids (SM 2540C)	**10000**		100		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.4**	**H5**	1.7		SU			05/08/24 14:51	1
Temperature (SM 4500 H+ B)	**10.1**	**H5 T5**	0.1		Degrees C			05/08/24 14:51	1
Total Organic Carbon (SM 5310B)	**2.1**		0.50		mg/L			05/09/24 21:41	1
Total Organic Carbon - Duplicates (SM 5310B)	**2.1**		0.50		mg/L			05/09/24 21:41	1
Total Organic Carbon - Quad (SM 5310B)	**2.1**		0.50		mg/L			05/09/24 21:41	1

Client Sample ID: CH-CCR-EW03-0424

Lab Sample ID: 550-217871-17

Date Collected: 05/02/24 15:20
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.12**		0.10		mg/L		05/06/24 08:01	05/11/24 22:40	1
Manganese	**0.48**		0.010		mg/L		05/06/24 08:01	05/11/24 22:40	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.3**		0.50		ug/L		05/06/24 07:50	05/07/24 15:52	1
Cobalt	**1.1**		0.50		ug/L		05/06/24 07:50	05/07/24 15:52	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**2.3**		0.50		mg/L			05/13/24 21:54	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**2.3**		0.50		mg/L			05/13/24 21:54	1
Dissolved Organic Carbon - Quad (SM 5310B)	**2.3**		0.50		mg/L			05/13/24 21:54	1

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-EW03-0424

Date Collected: 05/02/24 15:20
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-18

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3800**	**D2**	400		mg/L			05/07/24 00:23	200
Fluoride	**1.1**		0.40		mg/L			05/07/24 00:05	1
Sulfate	**3100**	**D2**	400		mg/L			05/07/24 00:23	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**14**		0.050		mg/L		05/06/24 08:01	05/11/24 22:43	1
Calcium	**760**		2.0		mg/L		05/06/24 08:01	05/11/24 22:43	1
Iron	**25**		0.10		mg/L		05/06/24 08:01	05/11/24 22:43	1
Magnesium	**350**		2.0		mg/L		05/06/24 08:01	05/11/24 22:43	1
Manganese	**2.0**		0.010		mg/L		05/06/24 08:01	05/11/24 22:43	1
Potassium	**18**		0.50		mg/L		05/06/24 08:01	05/11/24 22:43	1
Sodium	**3400**		50		mg/L		05/06/24 08:01	05/12/24 16:50	100
Beryllium	ND		0.0010		mg/L		05/06/24 08:01	05/11/24 22:43	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**450**	**T5**	200		ug/L		05/07/24 08:42	05/15/24 16:48	10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 15:54	1
Arsenic	**0.026**		0.00050		mg/L		05/06/24 07:50	05/07/24 15:54	1
Barium	**0.011**		0.00050		mg/L		05/06/24 07:50	05/07/24 15:54	1
Cadmium	**0.00036**		0.00010		mg/L		05/06/24 07:50	05/07/24 15:54	1
Chromium	**0.022**		0.0010		mg/L		05/06/24 07:50	05/07/24 15:54	1
Cobalt	**0.0021**		0.00050		mg/L		05/06/24 07:50	05/07/24 15:54	1
Lead	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 15:54	1
Molybdenum	**0.24**	**T5**	0.00050		mg/L		05/06/24 07:50	05/07/24 15:54	1
Selenium	**0.017**		0.00050		mg/L		05/06/24 07:50	05/09/24 11:33	1
Thallium	**0.00013**		0.00010		mg/L		05/06/24 07:50	05/07/24 15:54	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 16:00	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 15:29	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/15/24 19:11	1
Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			05/09/24 12:15	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 12:15	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**110**		6.0		mg/L			05/09/24 12:15	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:15	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:15	1
Total Dissolved Solids (SM 2540C)	**11000**		100		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.3**	**H5**	1.7		SU			05/08/24 14:53	1
Temperature (SM 4500 H+ B)	**10.6**	**H5 T5**	0.1		Degrees C			05/08/24 14:53	1

Client Sample ID: CH-CCR-EW03-0424

Lab Sample ID: 550-217871-18

Date Collected: 05/02/24 15:20
Matrix: Water
Date Received: 05/03/24 10:10

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (SM 5310B)	2.3		0.50		mg/L			05/11/24 01:16	1
Total Organic Carbon - Duplicates (SM 5310B)	2.3		0.50		mg/L			05/11/24 01:16	1
Total Organic Carbon - Quad (SM 5310B)	2.3		0.50		mg/L			05/11/24 01:16	1

Client Sample ID: CH-CCR-EW04-0424

Lab Sample ID: 550-217871-19

Date Collected: 05/02/24 16:10
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/06/24 08:01	05/11/24 22:53	1
Manganese	1.0		0.010		mg/L		05/06/24 08:01	05/11/24 22:53	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.8		0.50		ug/L		05/06/24 07:50	05/07/24 15:56	1
Cobalt	3.6		0.50		ug/L		05/06/24 07:50	05/07/24 15:56	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	1.9		0.50		mg/L			05/15/24 08:19	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	1.9		0.50		mg/L			05/15/24 08:19	1
Dissolved Organic Carbon - Quad (SM 5310B)	1.9		0.50		mg/L			05/15/24 08:19	1

Client Sample ID: CH-CCR-EW04-0424

Lab Sample ID: 550-217871-20

Date Collected: 05/02/24 16:10
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4900	D2	400		mg/L			05/07/24 01:00	200
Fluoride	3.4		0.40		mg/L			05/07/24 00:41	1
Sulfate	2800	D2	400		mg/L			05/07/24 01:00	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	32		0.050		mg/L		05/06/24 08:01	05/11/24 22:57	1
Calcium	820		2.0		mg/L		05/06/24 08:01	05/11/24 22:57	1
Iron	ND		0.10		mg/L		05/06/24 08:01	05/11/24 22:57	1
Magnesium	190		2.0		mg/L		05/06/24 08:01	05/11/24 22:57	1
Manganese	0.96		0.010		mg/L		05/06/24 08:01	05/11/24 22:57	1
Potassium	25		0.50		mg/L		05/06/24 08:01	05/11/24 22:57	1
Sodium	4400		50		mg/L		05/06/24 08:01	05/12/24 16:53	100
Beryllium	ND		0.0010		mg/L		05/06/24 08:01	05/11/24 22:57	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	340	T5	200		ug/L		05/07/24 08:42	05/15/24 16:52	10

Client Sample ID: CH-CCR-EW04-0424

Lab Sample ID: 550-217871-20

Date Collected: 05/02/24 16:10
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 15:59	1
Arsenic	**0.0057**		0.00050		mg/L		05/06/24 07:50	05/07/24 15:59	1
Barium	**0.011**		0.00050		mg/L		05/06/24 07:50	05/07/24 15:59	1
Cadmium	ND		0.00010		mg/L		05/06/24 07:50	05/07/24 15:59	1
Chromium	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 15:59	1
Cobalt	**0.0035**		0.00050		mg/L		05/06/24 07:50	05/07/24 15:59	1
Lead	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 15:59	1
Molybdenum	**0.37**	**T5**	0.00050		mg/L		05/06/24 07:50	05/07/24 15:59	1
Selenium	**0.0020**		0.00050		mg/L		05/06/24 07:50	05/09/24 11:36	1
Thallium	**0.00023**		0.00010		mg/L		05/06/24 07:50	05/07/24 15:59	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/24 12:21	05/09/24 17:39	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**1.1**		0.050		mg/L			05/17/24 15:30	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/15/24 19:13	1
Alkalinity as CaCO3 (SM 2320B)	**43**		6.0		mg/L			05/09/24 12:22	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 12:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**43**		6.0		mg/L			05/09/24 12:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:22	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:22	1
Total Dissolved Solids (SM 2540C)	**12000**		100		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.8**	**H5**	1.7		SU			05/08/24 14:54	1
Temperature (SM 4500 H+ B)	**11.6**	**H5 T5**	0.1		Degrees C			05/08/24 14:54	1
Total Organic Carbon (SM 5310B)	**1.7**		0.50		mg/L			05/11/24 01:29	1
Total Organic Carbon - Duplicates (SM 5310B)	**1.7**		0.50		mg/L			05/11/24 01:29	1
Total Organic Carbon - Quad (SM 5310B)	**1.7**		0.50		mg/L			05/11/24 01:29	1

Client Sample ID: CH-CCR-GSX1R-0424

Lab Sample ID: 550-217871-21

Date Collected: 05/02/24 15:54
Matrix: Water
Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.10**		0.10		mg/L		05/06/24 08:01	05/11/24 23:00	1
Manganese	**1.0**		0.010		mg/L		05/06/24 08:01	05/11/24 23:00	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.6**		0.50		ug/L		05/06/24 07:50	05/07/24 16:01	1
Cobalt	**3.3**		0.50		ug/L		05/06/24 07:50	05/07/24 16:01	1

Client Sample ID: CH-CCR-GSX1R-0424

Lab Sample ID: 550-217871-21
Matrix: Water
Date Collected: 05/02/24 15:54
Date Received: 05/03/24 10:10

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	2.2		0.50		mg/L			05/15/24 07:35	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	2.2		0.50		mg/L			05/15/24 07:35	1
Dissolved Organic Carbon - Quad (SM 5310B)	2.2		0.50		mg/L			05/15/24 07:35	1

Client Sample ID: CH-CCR-GSX1R-0424

Lab Sample ID: 550-217871-22
Matrix: Water
Date Collected: 05/02/24 15:54
Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3900	D2	400		mg/L			05/07/24 01:37	200
Fluoride	2.0		0.40		mg/L			05/07/24 01:18	1
Sulfate	2900	D2	400		mg/L			05/07/24 01:37	200

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	24		0.050		mg/L		05/06/24 08:01	05/11/24 23:04	1
Calcium	880		2.0		mg/L		05/06/24 08:01	05/11/24 23:04	1
Iron	0.36		0.10		mg/L		05/06/24 08:01	05/11/24 23:04	1
Magnesium	290		2.0		mg/L		05/06/24 08:01	05/11/24 23:04	1
Manganese	1.1		0.010		mg/L		05/06/24 08:01	05/11/24 23:04	1
Potassium	32		0.50		mg/L		05/06/24 08:01	05/11/24 23:04	1
Sodium	3500		50		mg/L		05/06/24 08:01	05/12/24 16:57	100
Beryllium	ND		0.0010		mg/L		05/06/24 08:01	05/11/24 23:04	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	420	T5	200		ug/L		05/07/24 08:42	05/15/24 17:19	10

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 16:09	1
Arsenic	0.0043		0.00050		mg/L		05/06/24 07:50	05/07/24 16:09	1
Barium	0.010		0.00050		mg/L		05/06/24 07:50	05/07/24 16:09	1
Cadmium	0.00015		0.00010		mg/L		05/06/24 07:50	05/07/24 16:09	1
Chromium	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 16:09	1
Cobalt	0.0033		0.00050		mg/L		05/06/24 07:50	05/07/24 16:09	1
Lead	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 16:09	1
Molybdenum	0.49	T5	0.00050		mg/L		05/06/24 07:50	05/07/24 16:09	1
Selenium	0.0048		0.00050		mg/L		05/06/24 07:50	05/09/24 11:38	1
Thallium	0.00016		0.00010		mg/L		05/06/24 07:50	05/07/24 16:09	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/24 12:21	05/09/24 17:41	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.31		0.050		mg/L			05/17/24 15:32	1

Client Sample ID: CH-CCR-GSX1R-0424

Lab Sample ID: 550-217871-22

Date Collected: 05/02/24 15:54

Matrix: Water

Date Received: 05/03/24 10:10

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/15/24 19:15	1
Alkalinity as CaCO3 (SM 2320B)	**76**		6.0		mg/L			05/09/24 12:27	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 12:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**76**		6.0		mg/L			05/09/24 12:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:27	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:27	1
Total Dissolved Solids (SM 2540C)	**11000**		100		mg/L			05/07/24 15:03	1
pH (SM 4500 H+ B)	**7.6**	**H5**	1.7		SU			05/08/24 14:55	1
Temperature (SM 4500 H+ B)	**11.7**	**H5 T5**	0.1		Degrees C			05/08/24 14:55	1
Total Organic Carbon (SM 5310B)	**1.8**		0.50		mg/L			05/11/24 01:44	1
Total Organic Carbon - Duplicates (SM 5310B)	**1.8**		0.50		mg/L			05/11/24 01:44	1
Total Organic Carbon - Quad (SM 5310B)	**1.8**		0.50		mg/L			05/11/24 01:44	1

Client Sample ID: CH-CCR-EB01-0424

Lab Sample ID: 550-217871-23

Date Collected: 05/02/24 17:00

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		05/06/24 08:01	05/11/24 23:07	1
Manganese	ND		0.010		mg/L		05/06/24 08:01	05/11/24 23:07	1

Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.82**		0.50		ug/L		05/06/24 07:50	05/07/24 16:11	1
Cobalt	ND		0.50		ug/L		05/06/24 07:50	05/07/24 16:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310B)	**0.69**		0.50		mg/L			05/15/24 08:33	1
Dissolved Organic Carbon - Duplicate (SM 5310B)	**0.72**		0.50		mg/L			05/15/24 08:33	1
Dissolved Organic Carbon - Quad (SM 5310B)	**0.69**		0.50		mg/L			05/15/24 08:33	1

Client Sample ID: CH-CCR-EB01-0424

Lab Sample ID: 550-217871-24

Date Collected: 05/02/24 17:00

Matrix: Water

Date Received: 05/03/24 10:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/07/24 01:55	1
Fluoride	ND		0.40		mg/L			05/07/24 01:55	1
Sulfate	ND		2.0		mg/L			05/07/24 01:55	1

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-EB01-0424

Date Collected: 05/02/24 17:00
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-24

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/06/24 08:01	05/11/24 23:10	1
Calcium	ND		2.0		mg/L		05/06/24 08:01	05/11/24 23:10	1
Iron	ND		0.10		mg/L		05/06/24 08:01	05/11/24 23:10	1
Magnesium	ND		2.0		mg/L		05/06/24 08:01	05/11/24 23:10	1
Manganese	ND		0.010		mg/L		05/06/24 08:01	05/11/24 23:10	1
Potassium	ND		0.50		mg/L		05/06/24 08:01	05/11/24 23:10	1
Sodium	ND		50		mg/L		05/06/24 08:01	05/12/24 17:00	100
Beryllium	ND		0.0010		mg/L		05/06/24 08:01	05/11/24 23:10	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	T5	20		ug/L		05/07/24 08:42	05/20/24 17:12	1

Method: EPA 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 16:13	1
Arsenic	**0.00088**		0.00050		mg/L		05/06/24 07:50	05/07/24 16:13	1
Barium	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 16:13	1
Cadmium	ND		0.00010		mg/L		05/06/24 07:50	05/07/24 16:13	1
Chromium	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 16:13	1
Cobalt	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 16:13	1
Lead	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 16:13	1
Molybdenum	ND	T5	0.00050		mg/L		05/06/24 07:50	05/07/24 16:13	1
Selenium	**0.00067**		0.00050		mg/L		05/06/24 07:50	05/09/24 11:40	1
Thallium	ND		0.00010		mg/L		05/06/24 07:50	05/07/24 16:13	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/24 12:21	05/09/24 17:43	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	ND		0.050		mg/L			05/17/24 15:33	1
Nitrate Nitrite as N (EPA 353.2)	ND		0.10		mg/L			05/15/24 19:17	1
Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:33	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/09/24 12:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:33	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/09/24 12:33	1
Total Dissolved Solids (SM 2540C)	ND		20		mg/L			05/09/24 08:50	1
pH (SM 4500 H+ B)	**5.7**	**H5**	1.7		SU			05/08/24 14:58	1
Temperature (SM 4500 H+ B)	**12.6**	**H5 T5**	0.1		Degrees C			05/08/24 14:58	1
Total Organic Carbon (SM 5310B)	ND		0.50		mg/L			05/11/24 01:55	1
Total Organic Carbon - Duplicates (SM 5310B)	ND		0.50		mg/L			05/11/24 01:55	1
Total Organic Carbon - Quad (SM 5310B)	ND		0.50		mg/L			05/11/24 01:55	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-320406/2
Matrix: Water
Analysis Batch: 320406

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/06/24 13:43	1
Fluoride	ND		0.40		mg/L			05/06/24 13:43	1
Sulfate	ND		2.0		mg/L			05/06/24 13:43	1

Lab Sample ID: LCS 550-320406/5
Matrix: Water
Analysis Batch: 320406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	18.8		mg/L		94	90 - 110		
Fluoride			4.00	3.94		mg/L		99	90 - 110		
Sulfate			20.0	18.8		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-320406/6
Matrix: Water
Analysis Batch: 320406

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	19.0		mg/L		95	90 - 110	1	20
Fluoride			4.00	3.99		mg/L		100	90 - 110	1	20
Sulfate			20.0	19.0		mg/L		95	90 - 110	1	20

Lab Sample ID: 550-217871-1 MS
Matrix: Water
Analysis Batch: 320406

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1000	D2	400	1370	D2	mg/L		87	80 - 120		
Fluoride	ND	D1 D5	80.0	79.3	D2	mg/L		99	80 - 120		
Sulfate	290	D2	400	665	D2	mg/L		94	80 - 120		

Lab Sample ID: 550-217871-1 MSD
Matrix: Water
Analysis Batch: 320406

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1000	D2	400	1370	D2	mg/L		85	80 - 120	1	20
Fluoride	ND	D1 D5	80.0	80.3	D2	mg/L		100	80 - 120	1	20
Sulfate	290	D2	400	666	D2	mg/L		94	80 - 120	0	20

Lab Sample ID: MB 550-320480/35
Matrix: Water
Analysis Batch: 320480

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			05/08/24 08:13	1
Fluoride	ND		0.40		mg/L			05/08/24 08:13	1
Sulfate	ND		2.0		mg/L			05/08/24 08:13	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-320480/36
Matrix: Water
Analysis Batch: 320480

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	18.7		mg/L		94	90 - 110		
Fluoride			4.00	3.97		mg/L		99	90 - 110		
Sulfate			20.0	18.8		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-320480/37
Matrix: Water
Analysis Batch: 320480

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			20.0	18.7		mg/L		94	90 - 110	0	20
Fluoride			4.00	3.96		mg/L		99	90 - 110	0	20
Sulfate			20.0	18.8		mg/L		94	90 - 110	0	20

Lab Sample ID: 550-217975-A-1 MS
Matrix: Water
Analysis Batch: 320480

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	210	E2 M3	20.0	219	E2 M3	mg/L		25	80 - 120		
Fluoride	ND		4.00	4.21		mg/L		97	80 - 120		
Sulfate	230	E2 M3	20.0	231	E2 M3	mg/L		26	80 - 120		

Lab Sample ID: 550-217975-A-1 MSD
Matrix: Water
Analysis Batch: 320480

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	210	E2 M3	20.0	219	E2 M3	mg/L		25	80 - 120	0	20
Fluoride	ND		4.00	4.24		mg/L		98	80 - 120	1	20
Sulfate	230	E2 M3	20.0	231	E2 M3	mg/L		26	80 - 120	0	20

Lab Sample ID: MB 550-321208/2
Matrix: Water
Analysis Batch: 321208

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.050		mg/L			05/20/24 14:01	1

Lab Sample ID: LCS 550-321208/5
Matrix: Water
Analysis Batch: 321208

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			8.00	8.17		mg/L		102	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-321208/6
Matrix: Water
Analysis Batch: 321208

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			8.00	8.18		mg/L		102	90 - 110	0	20

Lab Sample ID: 550-217871-6 MS
Matrix: Water
Analysis Batch: 321208

Client Sample ID: CH-CCR-FAP-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	ND	M2 D1 D5	40.0	20.6	D1 M2	mg/L		52	80 - 120		

Lab Sample ID: 550-217871-6 MSD
Matrix: Water
Analysis Batch: 321208

Client Sample ID: CH-CCR-FAP-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND	M2 D1 D5	40.0	20.5	D1 M2	mg/L		51	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-320358/1-A
Matrix: Water
Analysis Batch: 320742

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320358

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/06/24 07:56	05/11/24 20:38	1
Calcium	ND		2.0		mg/L		05/06/24 07:56	05/11/24 20:38	1
Iron	ND		0.10		mg/L		05/06/24 07:56	05/11/24 20:38	1
Magnesium	ND		2.0		mg/L		05/06/24 07:56	05/11/24 20:38	1
Manganese	ND		0.010		mg/L		05/06/24 07:56	05/11/24 20:38	1
Beryllium	ND		0.0010		mg/L		05/06/24 07:56	05/11/24 20:38	1

Lab Sample ID: MB 550-320358/1-A
Matrix: Water
Analysis Batch: 320754

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320358

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50		mg/L		05/06/24 07:56	05/12/24 15:17	1
Sodium	ND		0.50		mg/L		05/06/24 07:56	05/12/24 15:17	1

Lab Sample ID: LCS 550-320358/2-A
Matrix: Water
Analysis Batch: 320742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320358

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.15		mg/L		115	85 - 115		
Calcium			21.0	23.2		mg/L		111	85 - 115		
Iron			1.00	1.09		mg/L		109	85 - 115		
Magnesium			21.0	23.0		mg/L		109	85 - 115		
Manganese			1.00	1.09		mg/L		109	85 - 115		
Beryllium			1.00	1.10		mg/L		110	85 - 115		

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-320358/2-A
Matrix: Water
Analysis Batch: 320754

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320358

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Potassium			20.0	19.7		mg/L		99	85 - 115		
Sodium			20.0	18.8		mg/L		94	85 - 115		

Lab Sample ID: LCSD 550-320358/3-A
Matrix: Water
Analysis Batch: 320742

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320358

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron			1.00	1.12		mg/L		112	85 - 115	3	20
Calcium			21.0	23.0		mg/L		109	85 - 115	1	20
Iron			1.00	1.04		mg/L		104	85 - 115	5	20
Magnesium			21.0	22.0		mg/L		105	85 - 115	4	20
Manganese			1.00	1.06		mg/L		106	85 - 115	3	20
Beryllium			1.00	1.05		mg/L		105	85 - 115	4	20

Lab Sample ID: LCSD 550-320358/3-A
Matrix: Water
Analysis Batch: 320754

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320358

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Potassium			20.0	19.6		mg/L		98	85 - 115	0	20
Sodium			20.0	18.8		mg/L		94	85 - 115	0	20

Lab Sample ID: 550-217871-1 MS
Matrix: Water
Analysis Batch: 320742

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA
Prep Batch: 320358

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	0.27		1.00	1.42		mg/L		114	70 - 130		
Calcium	93		21.0	112	M3	mg/L		91	70 - 130		
Beryllium	ND		1.00	1.12		mg/L		112	70 - 130		

Lab Sample ID: 550-217871-1 MSD
Matrix: Water
Analysis Batch: 320742

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA
Prep Batch: 320358

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.27		1.00	1.49		mg/L		121	70 - 130	5	20
Calcium	93		21.0	118	M3	mg/L		119	70 - 130	5	20
Beryllium	ND		1.00	1.17		mg/L		117	70 - 130	5	20

Lab Sample ID: MB 550-320359/1-A
Matrix: Water
Analysis Batch: 320743

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320359

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		05/06/24 08:01	05/11/24 22:09	1
Calcium	ND		2.0		mg/L		05/06/24 08:01	05/11/24 22:09	1
Iron	ND		0.10		mg/L		05/06/24 08:01	05/11/24 22:09	1
Magnesium	ND		2.0		mg/L		05/06/24 08:01	05/11/24 22:09	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 550-320359/1-A
Matrix: Water
Analysis Batch: 320743

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320359

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.010		mg/L		05/06/24 08:01	05/11/24 22:09	1
Potassium	ND		0.50		mg/L		05/06/24 08:01	05/11/24 22:09	1
Beryllium	ND		0.0010		mg/L		05/06/24 08:01	05/11/24 22:09	1

Lab Sample ID: MB 550-320359/1-A
Matrix: Water
Analysis Batch: 320822

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320359

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		0.50		mg/L		05/06/24 08:01	05/12/24 16:14	1

Lab Sample ID: LCS 550-320359/2-A
Matrix: Water
Analysis Batch: 320743

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320359

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1.00	1.07		mg/L		107	85 - 115		
Calcium			21.0	21.5		mg/L		103	85 - 115		
Iron			1.00	1.01		mg/L		101	85 - 115		
Magnesium			21.0	21.5		mg/L		102	85 - 115		
Manganese			1.00	1.01		mg/L		101	85 - 115		
Potassium			20.0	21.0		mg/L		105	85 - 115		
Beryllium			1.00	1.03		mg/L		103	85 - 115		

Lab Sample ID: LCS 550-320359/2-A
Matrix: Water
Analysis Batch: 320822

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320359

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium			20.0	18.7		mg/L		93	85 - 115		

Lab Sample ID: LCSD 550-320359/3-A
Matrix: Water
Analysis Batch: 320743

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320359

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron			1.00	1.07		mg/L		107	85 - 115	1	20
Calcium			21.0	21.5		mg/L		102	85 - 115	0	20
Iron			1.00	1.00		mg/L		100	85 - 115	1	20
Magnesium			21.0	21.5		mg/L		103	85 - 115	0	20
Manganese			1.00	0.999		mg/L		100	85 - 115	1	20
Potassium			20.0	21.1		mg/L		106	85 - 115	1	20
Beryllium			1.00	1.02		mg/L		102	85 - 115	1	20

Lab Sample ID: LCSD 550-320359/3-A
Matrix: Water
Analysis Batch: 320822

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320359

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium			20.0	18.5		mg/L		93	85 - 115	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: 550-217871-14 MS
Matrix: Water
Analysis Batch: 320743

Client Sample ID: CH-CCR-EW01-0424
Prep Type: Total/NA
Prep Batch: 320359

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	4.2		1.00	5.22	M3	mg/L		106	70 - 130
Calcium	880	M3	21.0	872	M3	mg/L		-35	70 - 130
Iron	3.3		1.00	4.38		mg/L		105	70 - 130
Magnesium	300	M3	21.0	319	M3	mg/L		75	70 - 130
Manganese	5.8		1.00	6.70	M3	mg/L		87	70 - 130
Potassium	6.6	M1	20.0	34.6	M1	mg/L		140	70 - 130
Beryllium	ND		1.00	1.15		mg/L		115	70 - 130

Lab Sample ID: 550-217871-14 MS
Matrix: Water
Analysis Batch: 320822

Client Sample ID: CH-CCR-EW01-0424
Prep Type: Total/NA
Prep Batch: 320359

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	2600	M3	20.0	3710	M3	mg/L		5329	70 - 130

Lab Sample ID: 550-217871-14 MSD
Matrix: Water
Analysis Batch: 320743

Client Sample ID: CH-CCR-EW01-0424
Prep Type: Total/NA
Prep Batch: 320359

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	4.2		1.00	5.16	M3	mg/L		101	70 - 130	1	20
Calcium	880	M3	21.0	869	M3	mg/L		-48	70 - 130	0	20
Iron	3.3		1.00	4.38		mg/L		105	70 - 130	0	20
Magnesium	300	M3	21.0	317	M3	mg/L		65	70 - 130	1	20
Manganese	5.8		1.00	6.63	M3	mg/L		81	70 - 130	1	20
Potassium	6.6	M1	20.0	34.9	M1	mg/L		142	70 - 130	1	20
Beryllium	ND		1.00	1.16		mg/L		116	70 - 130	1	20

Lab Sample ID: 550-217871-14 MSD
Matrix: Water
Analysis Batch: 320822

Client Sample ID: CH-CCR-EW01-0424
Prep Type: Total/NA
Prep Batch: 320359

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	2600	M3	20.0	3410	M3	mg/L		3834	70 - 130	8	20

Lab Sample ID: MB 280-652277/1-A
Matrix: Water
Analysis Batch: 653481

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 652277

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		20	ug/L		05/07/24 08:42	05/14/24 19:30	1

Lab Sample ID: LCS 280-652277/2-A
Matrix: Water
Analysis Batch: 653481

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 652277

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	1000	949		ug/L		95	90 - 112

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-217871-1 MS
Matrix: Water
Analysis Batch: 653481

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total Recoverable
Prep Batch: 652277

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	45	T5	1000	1050		ug/L		100	70 - 130

Lab Sample ID: 550-217871-1 MSD
Matrix: Water
Analysis Batch: 653481

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total Recoverable
Prep Batch: 652277

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	45	T5	1000	1040		ug/L		99	70 - 130	1	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-320356/1-A
Matrix: Water
Analysis Batch: 320656

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320356

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:45	05/09/24 13:21	1
Arsenic	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:21	1
Barium	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:21	1
Cadmium	ND		0.00010		mg/L		05/06/24 07:45	05/09/24 13:21	1
Chromium	ND		0.0010		mg/L		05/06/24 07:45	05/09/24 13:21	1
Cobalt	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:21	1
Lead	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:21	1
Molybdenum	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:21	1
Thallium	ND		0.00010		mg/L		05/06/24 07:45	05/09/24 13:21	1
Selenium	ND		0.00050		mg/L		05/06/24 07:45	05/09/24 13:21	1

Lab Sample ID: MB 550-320356/1-A
Matrix: Water
Analysis Batch: 320697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320356

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:45	05/10/24 15:22	1
Arsenic	ND		0.00050		mg/L		05/06/24 07:45	05/10/24 15:22	1
Barium	ND		0.00050		mg/L		05/06/24 07:45	05/10/24 15:22	1
Cadmium	ND		0.00010		mg/L		05/06/24 07:45	05/10/24 15:22	1
Chromium	ND		0.0010		mg/L		05/06/24 07:45	05/10/24 15:22	1
Cobalt	ND		0.00050		mg/L		05/06/24 07:45	05/10/24 15:22	1
Lead	ND		0.00050		mg/L		05/06/24 07:45	05/10/24 15:22	1
Molybdenum	ND		0.00050		mg/L		05/06/24 07:45	05/10/24 15:22	1
Thallium	ND		0.00010		mg/L		05/06/24 07:45	05/10/24 15:22	1
Selenium	ND		0.00050		mg/L		05/06/24 07:45	05/10/24 15:22	1

Lab Sample ID: LCS 550-320356/2-A
Matrix: Water
Analysis Batch: 320656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320356

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.103		mg/L		103	85 - 115
Arsenic	0.100	0.104		mg/L		104	85 - 115

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 550-320356/2-A
Matrix: Water
Analysis Batch: 320656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320356

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.0985		mg/L		99	85 - 115
Cadmium	0.100	0.103		mg/L		103	85 - 115
Chromium	0.100	0.104		mg/L		104	85 - 115
Cobalt	0.100	0.106		mg/L		106	85 - 115
Lead	0.100	0.103		mg/L		103	85 - 115
Molybdenum	0.100	0.106		mg/L		106	85 - 115
Thallium	0.100	0.103		mg/L		103	85 - 115
Selenium	0.100	0.104		mg/L		104	85 - 115

Lab Sample ID: LCS 550-320356/2-A
Matrix: Water
Analysis Batch: 320697

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320356

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.109		mg/L		109	85 - 115
Arsenic	0.100	0.105		mg/L		105	85 - 115
Barium	0.100	0.102		mg/L		102	85 - 115
Cadmium	0.100	0.105		mg/L		105	85 - 115
Chromium	0.100	0.106		mg/L		106	85 - 115
Cobalt	0.100	0.106		mg/L		106	85 - 115
Lead	0.100	0.104		mg/L		104	85 - 115
Molybdenum	0.100	0.108		mg/L		108	85 - 115
Thallium	0.100	0.106		mg/L		106	85 - 115
Selenium	0.100	0.102		mg/L		102	85 - 115

Lab Sample ID: LCSD 550-320356/3-A
Matrix: Water
Analysis Batch: 320656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320356

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.107		mg/L		107	85 - 115	4	20
Arsenic	0.100	0.108		mg/L		108	85 - 115	4	20
Barium	0.100	0.103		mg/L		103	85 - 115	5	20
Cadmium	0.100	0.109		mg/L		109	85 - 115	5	20
Chromium	0.100	0.110		mg/L		110	85 - 115	5	20
Cobalt	0.100	0.109		mg/L		109	85 - 115	3	20
Lead	0.100	0.107		mg/L		107	85 - 115	5	20
Molybdenum	0.100	0.109		mg/L		109	85 - 115	3	20
Thallium	0.100	0.108		mg/L		108	85 - 115	4	20

Lab Sample ID: LCSD 550-320356/3-A
Matrix: Water
Analysis Batch: 320697

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320356

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.111		mg/L		111	85 - 115	2	20
Arsenic	0.100	0.107		mg/L		107	85 - 115	2	20
Barium	0.100	0.102		mg/L		102	85 - 115	1	20
Cadmium	0.100	0.108		mg/L		108	85 - 115	3	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-320356/3-A
Matrix: Water
Analysis Batch: 320697

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320356

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium			0.100	0.109		mg/L		109	85 - 115	2	20
Cobalt			0.100	0.109		mg/L		109	85 - 115	3	20
Lead			0.100	0.107		mg/L		107	85 - 115	3	20
Molybdenum			0.100	0.109		mg/L		109	85 - 115	1	20
Thallium			0.100	0.110		mg/L		110	85 - 115	4	20
Selenium			0.100	0.105		mg/L		105	85 - 115	2	20

Lab Sample ID: 550-217871-1 MS
Matrix: Water
Analysis Batch: 320656

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA
Prep Batch: 320356

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		0.100	0.109		mg/L		109	70 - 130
Arsenic	0.0011		0.100	0.110		mg/L		109	70 - 130
Barium	0.020		0.100	0.122		mg/L		102	70 - 130
Cadmium	ND		0.100	0.100		mg/L		100	70 - 130
Chromium	ND		0.100	0.105		mg/L		105	70 - 130
Cobalt	ND		0.100	0.102		mg/L		102	70 - 130
Lead	ND		0.100	0.0938		mg/L		94	70 - 130
Molybdenum	0.0017	T5	0.100	0.115		mg/L		113	70 - 130
Selenium	0.00061		0.100	0.106		mg/L		105	70 - 130
Thallium	ND		0.100	0.0952		mg/L		95	70 - 130

Lab Sample ID: 550-217871-1 MSD
Matrix: Water
Analysis Batch: 320656

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA
Prep Batch: 320356

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.107		mg/L		107	70 - 130	2	20
Arsenic	0.0011		0.100	0.108		mg/L		107	70 - 130	3	20
Barium	0.020		0.100	0.117		mg/L		97	70 - 130	4	20
Cadmium	ND		0.100	0.0976		mg/L		98	70 - 130	3	20
Chromium	ND		0.100	0.102		mg/L		102	70 - 130	3	20
Cobalt	ND		0.100	0.0993		mg/L		99	70 - 130	3	20
Lead	ND		0.100	0.0915		mg/L		92	70 - 130	2	20
Molybdenum	0.0017	T5	0.100	0.112		mg/L		110	70 - 130	3	20
Selenium	0.00061		0.100	0.104		mg/L		104	70 - 130	1	20
Thallium	ND		0.100	0.0936		mg/L		94	70 - 130	2	20

Lab Sample ID: MB 550-320357/1-A
Matrix: Water
Analysis Batch: 320512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320357

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 15:34	1
Arsenic	ND		0.50		ug/L		05/06/24 07:50	05/07/24 15:34	1
Barium	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 15:34	1
Cadmium	ND		0.00010		mg/L		05/06/24 07:50	05/07/24 15:34	1
Chromium	ND		0.0010		mg/L		05/06/24 07:50	05/07/24 15:34	1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 550-320357/1-A
Matrix: Water
Analysis Batch: 320512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320357

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND		0.50		ug/L		05/06/24 07:50	05/07/24 15:34	1
Lead	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 15:34	1
Molybdenum	ND		0.00050		mg/L		05/06/24 07:50	05/07/24 15:34	1
Thallium	ND		0.00010		mg/L		05/06/24 07:50	05/07/24 15:34	1

Lab Sample ID: MB 550-320357/1-A
Matrix: Water
Analysis Batch: 320601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320357

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.50		ug/L		05/06/24 07:50	05/09/24 11:13	1

Lab Sample ID: LCS 550-320357/2-A
Matrix: Water
Analysis Batch: 320512

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320357

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.100	0.110		mg/L		110	85 - 115		
Arsenic			100	106		ug/L		106	85 - 115		
Barium			0.100	0.104		mg/L		104	85 - 115		
Cadmium			0.100	0.107		mg/L		107	85 - 115		
Chromium			0.100	0.106		mg/L		106	85 - 115		
Cobalt			100	108		ug/L		108	85 - 115		
Lead			0.100	0.109		mg/L		109	85 - 115		
Molybdenum			0.100	0.109		mg/L		109	85 - 115		
Thallium			0.100	0.110		mg/L		110	85 - 115		

Lab Sample ID: LCS 550-320357/2-A
Matrix: Water
Analysis Batch: 320601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320357

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Selenium			100	104		ug/L		104	85 - 115		

Lab Sample ID: LCSD 550-320357/3-A
Matrix: Water
Analysis Batch: 320512

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320357

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			0.100	0.111		mg/L		111	85 - 115	1	20
Arsenic			100	108		ug/L		108	85 - 115	1	20
Barium			0.100	0.107		mg/L		107	85 - 115	3	20
Cadmium			0.100	0.108		mg/L		108	85 - 115	1	20
Chromium			0.100	0.107		mg/L		107	85 - 115	1	20
Cobalt			100	110		ug/L		110	85 - 115	1	20
Lead			0.100	0.113		mg/L		113	85 - 115	3	20
Molybdenum			0.100	0.108		mg/L		108	85 - 115	1	20
Thallium			0.100	0.115		mg/L		115	85 - 115	4	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-320357/3-A
Matrix: Water
Analysis Batch: 320601

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320357

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium			100	106		ug/L		106	85 - 115	2	20

Lab Sample ID: 550-217871-13 MS
Matrix: Water
Analysis Batch: 320512

Client Sample ID: CH-CCR-EW01-0424
Prep Type: Dissolved
Prep Batch: 320357

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND	M2	0.100	0.110	M2	mg/L		27	70 - 130
Arsenic	2.0		100	117		ug/L		115	70 - 130
Barium	16	M3	0.100	0.118	M3	mg/L		-15465	70 - 130
Cadmium	ND	M2	0.100	0.0946	M2	mg/L		54	70 - 130
Chromium	ND		0.100	0.108		mg/L		108	70 - 130
Cobalt	1.7		100	103		ug/L		102	70 - 130
Lead	ND		0.100	0.0923		mg/L		92	70 - 130
Molybdenum	8.6	T5 M3	0.100	0.120	M3	mg/L		-8447	70 - 130
Thallium	ND	M2	0.100	0.0942	M2	mg/L		7	70 - 130

Lab Sample ID: 550-217871-13 MS
Matrix: Water
Analysis Batch: 320601

Client Sample ID: CH-CCR-EW01-0424
Prep Type: Dissolved
Prep Batch: 320357

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	2.1		100	125		ug/L		123	70 - 130

Lab Sample ID: 550-217871-13 MSD
Matrix: Water
Analysis Batch: 320512

Client Sample ID: CH-CCR-EW01-0424
Prep Type: Dissolved
Prep Batch: 320357

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	M2	0.100	0.105	M2	mg/L		22	70 - 130	4	20
Arsenic	2.0		100	115		ug/L		113	70 - 130	1	20
Barium	16	M3	0.100	0.116	M3	mg/L		-15467	70 - 130	1	20
Cadmium	ND	M2	0.100	0.0922	M2	mg/L		51	70 - 130	3	20
Chromium	ND		0.100	0.107		mg/L		107	70 - 130	1	20
Cobalt	1.7		100	101		ug/L		100	70 - 130	2	20
Lead	ND		0.100	0.0897		mg/L		90	70 - 130	3	20
Molybdenum	8.6	T5 M3	0.100	0.118	M3	mg/L		-8449	70 - 130	2	20
Thallium	ND	M2	0.100	0.0913	M2	mg/L		4	70 - 130	3	20

Lab Sample ID: 550-217871-13 MSD
Matrix: Water
Analysis Batch: 320601

Client Sample ID: CH-CCR-EW01-0424
Prep Type: Dissolved
Prep Batch: 320357

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium	2.1		100	125		ug/L		123	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-320382/1-A
Matrix: Water
Analysis Batch: 320549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320382

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/08/24 11:16	05/08/24 14:54	1

Lab Sample ID: LCS 550-320382/2-A
Matrix: Water
Analysis Batch: 320549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320382

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00504		mg/L		101	85 - 115		

Lab Sample ID: LCSD 550-320382/3-A
Matrix: Water
Analysis Batch: 320549

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320382

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00506		mg/L		101	85 - 115	0	20

Lab Sample ID: 550-217871-1 MS
Matrix: Water
Analysis Batch: 320549

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA
Prep Batch: 320382

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00500	0.00598		mg/L		120	70 - 130		

Lab Sample ID: 550-217871-1 MSD
Matrix: Water
Analysis Batch: 320549

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA
Prep Batch: 320382

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00576		mg/L		115	70 - 130	4	20

Lab Sample ID: MB 550-320596/1-A
Matrix: Water
Analysis Batch: 320629

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 320596

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/24 12:21	05/09/24 16:42	1

Lab Sample ID: LCS 550-320596/2-A
Matrix: Water
Analysis Batch: 320629

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 320596

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00500	0.00477		mg/L		95	85 - 115		

Lab Sample ID: LCSD 550-320596/3-A
Matrix: Water
Analysis Batch: 320629

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 320596

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00500	0.00479		mg/L		96	85 - 115	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: 550-217802-B-9-D MS
Matrix: Water
Analysis Batch: 320629

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 320596

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00500	0.00505		mg/L		101	70 - 130

Lab Sample ID: 550-217841-C-1-C MSD
Matrix: Water
Analysis Batch: 320629

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 320596

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00500	0.00495		mg/L		99	70 - 130	1	20

Method: 350.1 - Nitrogen, Ammonia (Low Level)

Lab Sample ID: MB 550-321173/21
Matrix: Water
Analysis Batch: 321173

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			05/17/24 14:15	1

Lab Sample ID: MB 550-321173/60
Matrix: Water
Analysis Batch: 321173

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.050		mg/L			05/17/24 15:14	1

Lab Sample ID: LCS 550-321173/22
Matrix: Water
Analysis Batch: 321173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia			1.00	0.974		mg/L		97	90 - 110

Lab Sample ID: LCS 550-321173/61
Matrix: Water
Analysis Batch: 321173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia			1.00	0.958		mg/L		96	90 - 110

Lab Sample ID: LCSD 550-321173/23
Matrix: Water
Analysis Batch: 321173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.960		mg/L		96	90 - 110	1	20

Method: 350.1 - Nitrogen, Ammonia (Low Level) (Continued)

Lab Sample ID: LCSD 550-321173/62
Matrix: Water
Analysis Batch: 321173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			1.00	0.933		mg/L		93	90 - 110	3	20

Lab Sample ID: 550-217859-F-18 MS
Matrix: Water
Analysis Batch: 321173

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.31		1.00	1.31		mg/L		100	90 - 110		

Lab Sample ID: 550-217859-F-18 MSD
Matrix: Water
Analysis Batch: 321173

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.31		1.00	1.30		mg/L		99	90 - 110	1	20

Lab Sample ID: 550-217871-8 MS
Matrix: Water
Analysis Batch: 321173

Client Sample ID: CH-CCR-Geronimo-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	ND		1.00	0.984		mg/L		98	90 - 110		

Lab Sample ID: 550-217871-8 MSD
Matrix: Water
Analysis Batch: 321173

Client Sample ID: CH-CCR-Geronimo-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	ND		1.00	0.992		mg/L		99	90 - 110	1	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-653767/20
Matrix: Water
Analysis Batch: 653767

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10		mg/L			05/15/24 18:21	1

Lab Sample ID: LCS 280-653767/18
Matrix: Water
Analysis Batch: 653767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			1.00	0.974		mg/L		97	90 - 110		

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCSD 280-653767/19
Matrix: Water
Analysis Batch: 653767

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N			1.00	0.946		mg/L		95	90 - 110	3	10

Lab Sample ID: 280-190606-A-6 MS
Matrix: Water
Analysis Batch: 653767

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	ND		2.00	1.93		mg/L		94	90 - 110		

Lab Sample ID: 280-190606-A-6 MSD
Matrix: Water
Analysis Batch: 653767

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		2.00	1.97		mg/L		96	90 - 110	2	10

Lab Sample ID: 280-190701-A-16 MS
Matrix: Water
Analysis Batch: 653767

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	0.15		2.00	2.14		mg/L		99	90 - 110		

Lab Sample ID: 280-190701-A-16 MSD
Matrix: Water
Analysis Batch: 653767

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.15		2.00	2.05		mg/L		95	90 - 110	4	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-320536/4
Matrix: Water
Analysis Batch: 320536

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			05/08/24 09:27	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			05/08/24 09:27	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/08/24 09:27	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/08/24 09:27	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			05/08/24 09:27	1

Lab Sample ID: LCS 550-320536/3
Matrix: Water
Analysis Batch: 320536

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	248		mg/L		99	90 - 110		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-320536/12
Matrix: Water
Analysis Batch: 320536

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	245		mg/L		98	90 - 110	1	20

Lab Sample ID: 550-217802-A-9 DU
Matrix: Water
Analysis Batch: 320536

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Lab Sample ID: MB 550-320660/4
Matrix: Water
Analysis Batch: 320660

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			05/09/24 10:21	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			05/09/24 10:21	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/09/24 10:21	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/09/24 10:21	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			05/09/24 10:21	1

Lab Sample ID: LCS 550-320660/3
Matrix: Water
Analysis Batch: 320660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	240		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-320660/16
Matrix: Water
Analysis Batch: 320660

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	240		mg/L		96	90 - 110	0	20

Lab Sample ID: 550-217831-D-1 DU
Matrix: Water
Analysis Batch: 320660

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	260			257		mg/L				0.2	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	260			257		mg/L				0.2	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 550-217900-B-1 DU
Matrix: Water
Analysis Batch: 320660

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	24			24.1		mg/L				0.4	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	24			24.1		mg/L				0.4	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-320387/1
Matrix: Water
Analysis Batch: 320387

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			05/06/24 11:18	1

Lab Sample ID: LCS 550-320387/2
Matrix: Water
Analysis Batch: 320387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	972		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320387/3
Matrix: Water
Analysis Batch: 320387

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	972		mg/L		97	90 - 110	0	10

Lab Sample ID: 550-217864-A-2 DU
Matrix: Water
Analysis Batch: 320387

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2800			2690		mg/L				4	10

Lab Sample ID: MB 550-320464/1
Matrix: Water
Analysis Batch: 320464

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			05/07/24 15:03	1

Lab Sample ID: LCS 550-320464/2
Matrix: Water
Analysis Batch: 320464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	1000		mg/L		100	90 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 550-320464/3
Matrix: Water
Analysis Batch: 320464

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1100		mg/L		110	90 - 110	9	10

Lab Sample ID: 550-217777-B-1 DU
Matrix: Water
Analysis Batch: 320464

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	600			616		mg/L				3	10

Lab Sample ID: 550-217871-1 DU
Matrix: Water
Analysis Batch: 320464

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2900	R8		2220	R8	mg/L				27	10

Lab Sample ID: MB 550-320575/1
Matrix: Water
Analysis Batch: 320575

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			05/09/24 08:50	1

Lab Sample ID: LCS 550-320575/2
Matrix: Water
Analysis Batch: 320575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	974		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-320575/3
Matrix: Water
Analysis Batch: 320575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	964		mg/L		96	90 - 110	1	10

Lab Sample ID: 550-217954-B-21 DU
Matrix: Water
Analysis Batch: 320575

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	4400			4300		mg/L				2	10

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-320527/1
Matrix: Water
Analysis Batch: 320527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	6.9		SU		99.1	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-320527/13
Matrix: Water
Analysis Batch: 320527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.4	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-320527/25
Matrix: Water
Analysis Batch: 320527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		99.4	98.5 - 101.5		

Lab Sample ID: 550-217871-1 DU
Matrix: Water
Analysis Batch: 320527

Client Sample ID: CH-CCR-M44D-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.2	H5		7.1	H5	SU				2	5
Temperature	11.4	H5 T5		9.1	H5	Degrees C				22	

Lab Sample ID: 550-217871-6 DU
Matrix: Water
Analysis Batch: 320527

Client Sample ID: CH-CCR-FAP-0424
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.1	H5		7.1		SU				0	5
Temperature	10.2	H5 T5		10.3		Degrees C				1	

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 550-320655/6
Matrix: Water
Analysis Batch: 320655

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.50		mg/L			05/09/24 18:14	1
Total Organic Carbon - Duplicates	ND		0.50		mg/L			05/09/24 18:14	1
Total Organic Carbon - Quad	ND		0.50		mg/L			05/09/24 18:14	1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 550-320655/7
Matrix: Water
Analysis Batch: 320655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	19.0		mg/L		95	90 - 110
Total Organic Carbon - Duplicates	20.0	19.0		mg/L		95	90 - 110
Total Organic Carbon - Quad	20.0	19.0		mg/L		95	90 - 110

Lab Sample ID: LCSD 550-320655/8
Matrix: Water
Analysis Batch: 320655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.8		mg/L		99	90 - 110	4	20
Total Organic Carbon - Duplicates	20.0	19.8		mg/L		99	90 - 110	4	20
Total Organic Carbon - Quad	20.0	19.8		mg/L		99	90 - 110	4	20

Lab Sample ID: 550-217943-E-1 MS ^4
Matrix: Water
Analysis Batch: 320655

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	7.7		80.0	88.1		mg/L		100	90 - 110
Total Organic Carbon - Duplicates	7.8		80.0	88.1		mg/L		100	90 - 110
Total Organic Carbon - Quad	7.7		80.0	88.1		mg/L		100	90 - 110

Lab Sample ID: 550-217943-E-1 MSD ^4
Matrix: Water
Analysis Batch: 320655

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	7.7		80.0	86.9		mg/L		99	90 - 110	1	20
Total Organic Carbon - Duplicates	7.8		80.0	86.9		mg/L		99	90 - 110	1	20
Total Organic Carbon - Quad	7.7		80.0	86.9		mg/L		99	90 - 110	1	20

Lab Sample ID: MB 550-320776/5
Matrix: Water
Analysis Batch: 320776

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.50		mg/L			05/10/24 21:05	1
Total Organic Carbon - Duplicates	ND		0.50		mg/L			05/10/24 21:05	1
Total Organic Carbon - Quad	ND		0.50		mg/L			05/10/24 21:05	1

Lab Sample ID: LCS 550-320776/6
Matrix: Water
Analysis Batch: 320776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	19.5		mg/L		98	90 - 110

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 550-320776/6
Matrix: Water
Analysis Batch: 320776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Duplicates	20.0	19.5		mg/L		98	90 - 110
Total Organic Carbon - Quad	20.0	19.5		mg/L		98	90 - 110

Lab Sample ID: LCSD 550-320776/7
Matrix: Water
Analysis Batch: 320776

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.9		mg/L		99	90 - 110	2	20
Total Organic Carbon - Duplicates	20.0	19.9		mg/L		99	90 - 110	2	20
Total Organic Carbon - Quad	20.0	19.9		mg/L		99	90 - 110	2	20

Lab Sample ID: 550-218103-D-6 MS
Matrix: Water
Analysis Batch: 320776

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	1.2		20.0	21.5		mg/L		102	90 - 110
Total Organic Carbon - Duplicates	1.2		20.0	21.5		mg/L		102	90 - 110
Total Organic Carbon - Quad	1.2		20.0	21.5		mg/L		102	90 - 110

Lab Sample ID: 550-218103-D-6 MSD
Matrix: Water
Analysis Batch: 320776

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	1.2		20.0	21.4		mg/L		101	90 - 110	1	20
Total Organic Carbon - Duplicates	1.2		20.0	21.4		mg/L		101	90 - 110	1	20
Total Organic Carbon - Quad	1.2		20.0	21.4		mg/L		101	90 - 110	1	20

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 550-320900/6
Matrix: Water
Analysis Batch: 320900

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50	mg/L			05/13/24 16:16	1
Dissolved Organic Carbon - Duplicate	ND		0.50	mg/L			05/13/24 16:16	1
Dissolved Organic Carbon - Quad	ND		0.50	mg/L			05/13/24 16:16	1

Lab Sample ID: LCS 550-320900/7
Matrix: Water
Analysis Batch: 320900

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	20.1		mg/L		100	90 - 110

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCS 550-320900/7
Matrix: Water
Analysis Batch: 320900

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon - Duplicate			20.0	20.1		mg/L		100	90 - 110		
Dissolved Organic Carbon - Quad			20.0	20.1		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-320900/8
Matrix: Water
Analysis Batch: 320900

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.6		mg/L		98	90 - 110	3	20
Dissolved Organic Carbon - Duplicate			20.0	19.6		mg/L		98	90 - 110	3	20
Dissolved Organic Carbon - Quad			20.0	19.6		mg/L		98	90 - 110	3	20

Lab Sample ID: 550-217871-5 MS
Matrix: Water
Analysis Batch: 320900

Client Sample ID: CH-CCR-FAP-0424
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	110	D2	1000	1110	D2	mg/L		100	90 - 110		
Dissolved Organic Carbon - Duplicate	110	D2	1000	1110	D2	mg/L		100	90 - 110		
Dissolved Organic Carbon - Quad	110	D2	1000	1110	D2	mg/L		100	90 - 110		

Lab Sample ID: 550-217871-5 MSD
Matrix: Water
Analysis Batch: 320900

Client Sample ID: CH-CCR-FAP-0424
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	110	D2	1000	1100	D2	mg/L		99	90 - 110	1	20
Dissolved Organic Carbon - Duplicate	110	D2	1000	1100	D2	mg/L		99	90 - 110	1	20
Dissolved Organic Carbon - Quad	110	D2	1000	1100	D2	mg/L		99	90 - 110	1	20

Lab Sample ID: MB 550-320938/6
Matrix: Water
Analysis Batch: 320938

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		0.50		mg/L			05/15/24 01:57	1
Dissolved Organic Carbon - Duplicate	ND		0.50		mg/L			05/15/24 01:57	1
Dissolved Organic Carbon - Quad	ND		0.50		mg/L			05/15/24 01:57	1

Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCS 550-320938/7
Matrix: Water
Analysis Batch: 320938

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	19.2		mg/L		96	90 - 110		
Dissolved Organic Carbon - Duplicate			20.0	19.2		mg/L		96	90 - 110		
Dissolved Organic Carbon - Quad			20.0	19.2		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-320938/8
Matrix: Water
Analysis Batch: 320938

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	20.1		mg/L		100	90 - 110	4	20
Dissolved Organic Carbon - Duplicate			20.0	20.1		mg/L		100	90 - 110	4	20
Dissolved Organic Carbon - Quad			20.0	20.1		mg/L		100	90 - 110	4	20

Lab Sample ID: 550-217871-21 MS
Matrix: Water
Analysis Batch: 320938

Client Sample ID: CH-CCR-GSX1R-0424
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	2.2		20.0	23.3		mg/L		105	90 - 110		
Dissolved Organic Carbon - Duplicate	2.2		20.0	23.3		mg/L		105	90 - 110		
Dissolved Organic Carbon - Quad	2.2		20.0	23.3		mg/L		105	90 - 110		

Lab Sample ID: 550-217871-21 MSD
Matrix: Water
Analysis Batch: 320938

Client Sample ID: CH-CCR-GSX1R-0424
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	2.2		20.0	23.4		mg/L		106	90 - 110	1	20
Dissolved Organic Carbon - Duplicate	2.2		20.0	23.4		mg/L		106	90 - 110	1	20
Dissolved Organic Carbon - Quad	2.2		20.0	23.4		mg/L		106	90 - 110	1	20

HPLC/IC

Analysis Batch: 320406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	300.0	
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	300.0	
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	300.0	
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	300.0	
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	300.0	
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	300.0	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	300.0	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	300.0	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	300.0	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	300.0	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	300.0	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	300.0	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	300.0	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	300.0	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	300.0	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	300.0	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	300.0	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	300.0	
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	300.0	
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	300.0	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	300.0	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	300.0	
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	300.0	
MB 550-320406/2	Method Blank	Total/NA	Water	300.0	
LCS 550-320406/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-320406/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217871-1 MS	CH-CCR-M44D-0424	Total/NA	Water	300.0	
550-217871-1 MSD	CH-CCR-M44D-0424	Total/NA	Water	300.0	

Analysis Batch: 320480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	300.0	
MB 550-320480/35	Method Blank	Total/NA	Water	300.0	
LCS 550-320480/36	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-320480/37	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217975-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-217975-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 321208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	300.0	
MB 550-321208/2	Method Blank	Total/NA	Water	300.0	
LCS 550-321208/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-321208/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217871-6 MS	CH-CCR-FAP-0424	Total/NA	Water	300.0	
550-217871-6 MSD	CH-CCR-FAP-0424	Total/NA	Water	300.0	

Metals

Prep Batch: 320356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	200.8	
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	200.8	
550-217871-3	CH-CCR-M67A-0424	Dissolved	Water	200.8	
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	200.8	
550-217871-5	CH-CCR-FAP-0424	Dissolved	Water	200.8	
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	200.8	
550-217871-7	CH-CCR-Geronimo-0424	Dissolved	Water	200.8	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	200.8	
550-217871-9	CH-CCR-GeronimoD-0424	Dissolved	Water	200.8	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	200.8	
550-217871-11	CH-CCR-HuntB-0424	Dissolved	Water	200.8	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	200.8	
MB 550-320356/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-320356/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-320356/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-217871-1 MS	CH-CCR-M44D-0424	Total/NA	Water	200.8	
550-217871-1 MSD	CH-CCR-M44D-0424	Total/NA	Water	200.8	

Prep Batch: 320357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-13	CH-CCR-EW01-0424	Dissolved	Water	200.8	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	200.8	
550-217871-15	CH-CCR-EW02-0424	Dissolved	Water	200.8	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	200.8	
550-217871-17	CH-CCR-EW03-0424	Dissolved	Water	200.8	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	200.8	
550-217871-19	CH-CCR-EW04-0424	Dissolved	Water	200.8	
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	200.8	
550-217871-21	CH-CCR-GSX1R-0424	Dissolved	Water	200.8	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	200.8	
550-217871-23	CH-CCR-EB01-0424	Dissolved	Water	200.8	
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	200.8	
MB 550-320357/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-320357/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-320357/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-217871-13 MS	CH-CCR-EW01-0424	Dissolved	Water	200.8	
550-217871-13 MSD	CH-CCR-EW01-0424	Dissolved	Water	200.8	

Prep Batch: 320358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	200.7	
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	200.7	
550-217871-3	CH-CCR-M67A-0424	Dissolved	Water	200.7	
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	200.7	
550-217871-5	CH-CCR-FAP-0424	Dissolved	Water	200.7	
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	200.7	
550-217871-7	CH-CCR-Geronimo-0424	Dissolved	Water	200.7	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	200.7	
550-217871-9	CH-CCR-GeronimoD-0424	Dissolved	Water	200.7	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	200.7	
550-217871-11	CH-CCR-HuntB-0424	Dissolved	Water	200.7	

Metals (Continued)

Prep Batch: 320358 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	200.7	
MB 550-320358/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-320358/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-320358/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217871-1 MS	CH-CCR-M44D-0424	Total/NA	Water	200.7	
550-217871-1 MSD	CH-CCR-M44D-0424	Total/NA	Water	200.7	

Prep Batch: 320359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-13	CH-CCR-EW01-0424	Dissolved	Water	200.7	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	200.7	
550-217871-15	CH-CCR-EW02-0424	Dissolved	Water	200.7	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	200.7	
550-217871-17	CH-CCR-EW03-0424	Dissolved	Water	200.7	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	200.7	
550-217871-19	CH-CCR-EW04-0424	Dissolved	Water	200.7	
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	200.7	
550-217871-21	CH-CCR-GSX1R-0424	Dissolved	Water	200.7	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	200.7	
550-217871-23	CH-CCR-EB01-0424	Dissolved	Water	200.7	
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	200.7	
MB 550-320359/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-320359/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-320359/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217871-14 MS	CH-CCR-EW01-0424	Total/NA	Water	200.7	
550-217871-14 MSD	CH-CCR-EW01-0424	Total/NA	Water	200.7	

Prep Batch: 320382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	245.1	
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	245.1	
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	245.1	
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	245.1	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	245.1	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	245.1	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	245.1	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	245.1	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	245.1	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	245.1	
MB 550-320382/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-320382/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-320382/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-217871-1 MS	CH-CCR-M44D-0424	Total/NA	Water	245.1	
550-217871-1 MSD	CH-CCR-M44D-0424	Total/NA	Water	245.1	

Analysis Batch: 320512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-13	CH-CCR-EW01-0424	Dissolved	Water	200.8 LL	320357
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	200.8 LL	320357
550-217871-15	CH-CCR-EW02-0424	Dissolved	Water	200.8 LL	320357
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	200.8 LL	320357

Metals (Continued)

Analysis Batch: 320512 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-17	CH-CCR-EW03-0424	Dissolved	Water	200.8 LL	320357
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	200.8 LL	320357
550-217871-19	CH-CCR-EW04-0424	Dissolved	Water	200.8 LL	320357
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	200.8 LL	320357
550-217871-21	CH-CCR-GSX1R-0424	Dissolved	Water	200.8 LL	320357
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	200.8 LL	320357
550-217871-23	CH-CCR-EB01-0424	Dissolved	Water	200.8 LL	320357
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	200.8 LL	320357
MB 550-320357/1-A	Method Blank	Total/NA	Water	200.8 LL	320357
LCS 550-320357/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	320357
LCSD 550-320357/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	320357
550-217871-13 MS	CH-CCR-EW01-0424	Dissolved	Water	200.8 LL	320357
550-217871-13 MSD	CH-CCR-EW01-0424	Dissolved	Water	200.8 LL	320357

Analysis Batch: 320549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	245.1	320382
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	245.1	320382
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	245.1	320382
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	245.1	320382
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	245.1	320382
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	245.1	320382
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	245.1	320382
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	245.1	320382
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	245.1	320382
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	245.1	320382
MB 550-320382/1-A	Method Blank	Total/NA	Water	245.1	320382
LCS 550-320382/2-A	Lab Control Sample	Total/NA	Water	245.1	320382
LCSD 550-320382/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	320382
550-217871-1 MS	CH-CCR-M44D-0424	Total/NA	Water	245.1	320382
550-217871-1 MSD	CH-CCR-M44D-0424	Total/NA	Water	245.1	320382

Prep Batch: 320596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	245.1	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	245.1	
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	245.1	
MB 550-320596/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-320596/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-320596/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-217802-B-9-D MS	Matrix Spike	Total/NA	Water	245.1	
550-217841-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 320601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-13	CH-CCR-EW01-0424	Dissolved	Water	200.8 LL	320357
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	200.8 LL	320357
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	200.8 LL	320357
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	200.8 LL	320357
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	200.8 LL	320357
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	200.8 LL	320357

Metals (Continued)

Analysis Batch: 320601 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	200.8 LL	320357
MB 550-320357/1-A	Method Blank	Total/NA	Water	200.8 LL	320357
LCS 550-320357/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	320357
LCSD 550-320357/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	320357
550-217871-13 MS	CH-CCR-EW01-0424	Dissolved	Water	200.8 LL	320357
550-217871-13 MSD	CH-CCR-EW01-0424	Dissolved	Water	200.8 LL	320357

Analysis Batch: 320629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	245.1	320596
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	245.1	320596
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	245.1	320596
MB 550-320596/1-A	Method Blank	Total/NA	Water	245.1	320596
LCS 550-320596/2-A	Lab Control Sample	Total/NA	Water	245.1	320596
LCSD 550-320596/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	320596
550-217802-B-9-D MS	Matrix Spike	Total/NA	Water	245.1	320596
550-217841-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	320596

Analysis Batch: 320656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	200.8 LL	320356
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	200.8 LL	320356
550-217871-3	CH-CCR-M67A-0424	Dissolved	Water	200.8 LL	320356
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	200.8 LL	320356
550-217871-5	CH-CCR-FAP-0424	Dissolved	Water	200.8 LL	320356
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	200.8 LL	320356
550-217871-7	CH-CCR-Geronimo-0424	Dissolved	Water	200.8 LL	320356
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	200.8 LL	320356
550-217871-9	CH-CCR-GeronimoD-0424	Dissolved	Water	200.8 LL	320356
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	200.8 LL	320356
550-217871-11	CH-CCR-HuntB-0424	Dissolved	Water	200.8 LL	320356
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	200.8 LL	320356
MB 550-320356/1-A	Method Blank	Total/NA	Water	200.8 LL	320356
LCS 550-320356/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	320356
LCSD 550-320356/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	320356
550-217871-1 MS	CH-CCR-M44D-0424	Total/NA	Water	200.8 LL	320356
550-217871-1 MSD	CH-CCR-M44D-0424	Total/NA	Water	200.8 LL	320356

Analysis Batch: 320697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	200.8 LL	320356
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	200.8 LL	320356
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	200.8 LL	320356
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	200.8 LL	320356
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	200.8 LL	320356
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	200.8 LL	320356
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	200.8 LL	320356
MB 550-320356/1-A	Method Blank	Total/NA	Water	200.8 LL	320356
LCS 550-320356/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	320356
LCSD 550-320356/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	320356

Metals

Analysis Batch: 320742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-3	CH-CCR-M67A-0424	Dissolved	Water	200.7	320358
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-7	CH-CCR-Geronimo-0424	Dissolved	Water	200.7	320358
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-9	CH-CCR-GeronimoD-0424	Dissolved	Water	200.7	320358
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-11	CH-CCR-HuntB-0424	Dissolved	Water	200.7	320358
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	200.7 Rev 4.4	320358
MB 550-320358/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	320358
LCS 550-320358/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	320358
LCSD 550-320358/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-1 MS	CH-CCR-M44D-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-1 MSD	CH-CCR-M44D-0424	Total/NA	Water	200.7 Rev 4.4	320358

Analysis Batch: 320743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-13	CH-CCR-EW01-0424	Dissolved	Water	200.7	320359
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-15	CH-CCR-EW02-0424	Dissolved	Water	200.7	320359
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-17	CH-CCR-EW03-0424	Dissolved	Water	200.7	320359
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-19	CH-CCR-EW04-0424	Dissolved	Water	200.7	320359
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-21	CH-CCR-GSX1R-0424	Dissolved	Water	200.7	320359
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-23	CH-CCR-EB01-0424	Dissolved	Water	200.7	320359
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	200.7 Rev 4.4	320359
MB 550-320359/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	320359
LCS 550-320359/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	320359
LCSD 550-320359/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-14 MS	CH-CCR-EW01-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-14 MSD	CH-CCR-EW01-0424	Total/NA	Water	200.7 Rev 4.4	320359

Analysis Batch: 320754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-5	CH-CCR-FAP-0424	Dissolved	Water	200.7	320358
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	200.7 Rev 4.4	320358
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	200.7 Rev 4.4	320358
MB 550-320358/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	320358
LCS 550-320358/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	320358
LCSD 550-320358/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	320358

Analysis Batch: 320822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	200.7 Rev 4.4	320359

Metals (Continued)

Analysis Batch: 320822 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	200.7 Rev 4.4	320359
MB 550-320359/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	320359
LCS 550-320359/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	320359
LCSD 550-320359/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-14 MS	CH-CCR-EW01-0424	Total/NA	Water	200.7 Rev 4.4	320359
550-217871-14 MSD	CH-CCR-EW01-0424	Total/NA	Water	200.7 Rev 4.4	320359

Prep Batch: 652277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total Recoverable	Water	200.7	
550-217871-2	CH-CCR-FD06-0424	Total Recoverable	Water	200.7	
550-217871-4	CH-CCR-M67A-0424	Total Recoverable	Water	200.7	
550-217871-6	CH-CCR-FAP-0424	Total Recoverable	Water	200.7	
550-217871-8	CH-CCR-Geronimo-0424	Total Recoverable	Water	200.7	
550-217871-10	CH-CCR-GeronimoD-0424	Total Recoverable	Water	200.7	
550-217871-12	CH-CCR-HuntB-0424	Total Recoverable	Water	200.7	
550-217871-14	CH-CCR-EW01-0424	Total Recoverable	Water	200.7	
550-217871-16	CH-CCR-EW02-0424	Total Recoverable	Water	200.7	
550-217871-18	CH-CCR-EW03-0424	Total Recoverable	Water	200.7	
550-217871-20	CH-CCR-EW04-0424	Total Recoverable	Water	200.7	
550-217871-22	CH-CCR-GSX1R-0424	Total Recoverable	Water	200.7	
550-217871-24	CH-CCR-EB01-0424	Total Recoverable	Water	200.7	
MB 280-652277/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-652277/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
550-217871-1 MS	CH-CCR-M44D-0424	Total Recoverable	Water	200.7	
550-217871-1 MSD	CH-CCR-M44D-0424	Total Recoverable	Water	200.7	

Analysis Batch: 653481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
MB 280-652277/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	652277
LCS 280-652277/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-1 MS	CH-CCR-M44D-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-1 MSD	CH-CCR-M44D-0424	Total Recoverable	Water	200.7 Rev 4.4	652277

Analysis Batch: 653682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-2	CH-CCR-FD06-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-4	CH-CCR-M67A-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-6	CH-CCR-FAP-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-8	CH-CCR-Geronimo-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-10	CH-CCR-GeronimoD-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-12	CH-CCR-HuntB-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-14	CH-CCR-EW01-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-16	CH-CCR-EW02-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-18	CH-CCR-EW03-0424	Total Recoverable	Water	200.7 Rev 4.4	652277
550-217871-20	CH-CCR-EW04-0424	Total Recoverable	Water	200.7 Rev 4.4	652277

Metals (Continued)

Analysis Batch: 653682 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-22	CH-CCR-GSX1R-0424	Total Recoverable	Water	200.7 Rev 4.4	652277

Analysis Batch: 654241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-24	CH-CCR-EB01-0424	Total Recoverable	Water	200.7 Rev 4.4	652277

General Chemistry

Analysis Batch: 320387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	SM 2540C	
MB 550-320387/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320387/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320387/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217864-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 320464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	SM 2540C	
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	SM 2540C	
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	SM 2540C	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	SM 2540C	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	SM 2540C	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	SM 2540C	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	SM 2540C	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	SM 2540C	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	SM 2540C	
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	SM 2540C	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	SM 2540C	
MB 550-320464/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320464/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320464/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217777-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	
550-217871-1 DU	CH-CCR-M44D-0424	Total/NA	Water	SM 2540C	

Analysis Batch: 320527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-1	CH-CCR-M44D-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-2	CH-CCR-FD06-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320527/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 320527 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 550-320527/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-320527/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-217871-1 DU	CH-CCR-M44D-0424	Total/NA	Water	SM 4500 H+ B	
550-217871-6 DU	CH-CCR-FAP-0424	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 320536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	SM 2320B	
MB 550-320536/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320536/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320536/12	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217802-A-9 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 320575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	SM 2540C	
MB 550-320575/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-320575/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-320575/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-217954-B-21 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 320655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	SM 5310B	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	SM 5310B	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	SM 5310B	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	SM 5310B	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	SM 5310B	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	SM 5310B	
MB 550-320655/6	Method Blank	Total/NA	Water	SM 5310B	
LCS 550-320655/7	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 550-320655/8	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
550-217943-E-1 MS ^4	Matrix Spike	Total/NA	Water	SM 5310B	
550-217943-E-1 MSD ^4	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 320660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	SM 2320B	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	SM 2320B	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	SM 2320B	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	SM 2320B	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	SM 2320B	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	SM 2320B	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	SM 2320B	
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	SM 2320B	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	SM 2320B	
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	SM 2320B	
MB 550-320660/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320660/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320660/16	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217831-D-1 DU	Duplicate	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 320660 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217900-B-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 320776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	SM 5310B	
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	SM 5310B	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	SM 5310B	
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	SM 5310B	
MB 550-320776/5	Method Blank	Total/NA	Water	SM 5310B	
LCS 550-320776/6	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 550-320776/7	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
550-218103-D-6 MS	Matrix Spike	Total/NA	Water	SM 5310B	
550-218103-D-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 320900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-3	CH-CCR-M67A-0424	Dissolved	Water	SM 5310B	
550-217871-5	CH-CCR-FAP-0424	Dissolved	Water	SM 5310B	
550-217871-7	CH-CCR-Geronimo-0424	Dissolved	Water	SM 5310B	
550-217871-9	CH-CCR-GeronimoD-0424	Dissolved	Water	SM 5310B	
550-217871-11	CH-CCR-HuntB-0424	Dissolved	Water	SM 5310B	
550-217871-13	CH-CCR-EW01-0424	Dissolved	Water	SM 5310B	
550-217871-15	CH-CCR-EW02-0424	Dissolved	Water	SM 5310B	
550-217871-17	CH-CCR-EW03-0424	Dissolved	Water	SM 5310B	
MB 550-320900/6	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-320900/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-320900/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-217871-5 MS	CH-CCR-FAP-0424	Dissolved	Water	SM 5310B	
550-217871-5 MSD	CH-CCR-FAP-0424	Dissolved	Water	SM 5310B	

Analysis Batch: 320938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-19	CH-CCR-EW04-0424	Dissolved	Water	SM 5310B	
550-217871-21	CH-CCR-GSX1R-0424	Dissolved	Water	SM 5310B	
550-217871-23	CH-CCR-EB01-0424	Dissolved	Water	SM 5310B	
MB 550-320938/6	Method Blank	Dissolved	Water	SM 5310B	
LCS 550-320938/7	Lab Control Sample	Dissolved	Water	SM 5310B	
LCSD 550-320938/8	Lab Control Sample Dup	Dissolved	Water	SM 5310B	
550-217871-21 MS	CH-CCR-GSX1R-0424	Dissolved	Water	SM 5310B	
550-217871-21 MSD	CH-CCR-GSX1R-0424	Dissolved	Water	SM 5310B	

Analysis Batch: 321173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	350.1	
550-217871-6	CH-CCR-FAP-0424	Total/NA	Water	350.1	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	350.1	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	350.1	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	350.1	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	350.1	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	350.1	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 321173 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	350.1	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	350.1	
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	350.1	
MB 550-321173/21	Method Blank	Total/NA	Water	350.1	
MB 550-321173/60	Method Blank	Total/NA	Water	350.1	
LCS 550-321173/22	Lab Control Sample	Total/NA	Water	350.1	
LCS 550-321173/61	Lab Control Sample	Total/NA	Water	350.1	
LCSD 550-321173/23	Lab Control Sample Dup	Total/NA	Water	350.1	
LCSD 550-321173/62	Lab Control Sample Dup	Total/NA	Water	350.1	
550-217859-F-18 MS	Matrix Spike	Total/NA	Water	350.1	
550-217859-F-18 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
550-217871-8 MS	CH-CCR-Geronimo-0424	Total/NA	Water	350.1	
550-217871-8 MSD	CH-CCR-Geronimo-0424	Total/NA	Water	350.1	

Analysis Batch: 653767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217871-4	CH-CCR-M67A-0424	Total/NA	Water	353.2	
550-217871-8	CH-CCR-Geronimo-0424	Total/NA	Water	353.2	
550-217871-10	CH-CCR-GeronimoD-0424	Total/NA	Water	353.2	
550-217871-12	CH-CCR-HuntB-0424	Total/NA	Water	353.2	
550-217871-14	CH-CCR-EW01-0424	Total/NA	Water	353.2	
550-217871-16	CH-CCR-EW02-0424	Total/NA	Water	353.2	
550-217871-18	CH-CCR-EW03-0424	Total/NA	Water	353.2	
550-217871-20	CH-CCR-EW04-0424	Total/NA	Water	353.2	
550-217871-22	CH-CCR-GSX1R-0424	Total/NA	Water	353.2	
550-217871-24	CH-CCR-EB01-0424	Total/NA	Water	353.2	
MB 280-653767/20	Method Blank	Total/NA	Water	353.2	
LCS 280-653767/18	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-653767/19	Lab Control Sample Dup	Total/NA	Water	353.2	
280-190606-A-6 MS	Matrix Spike	Total/NA	Water	353.2	
280-190606-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
280-190701-A-16 MS	Matrix Spike	Total/NA	Water	353.2	
280-190701-A-16 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-M44D-0424

Lab Sample ID: 550-217871-1

Date Collected: 05/02/24 12:00

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/06/24 15:15
Total/NA	Analysis	300.0		20	320406	RDC	EET PHX	05/06/24 15:33
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		1	653481	NKC	EET DEN	05/14/24 19:38
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		1	320742	GLW	EET PHX	05/11/24 20:54
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		1	320656	DSJ	EET PHX	05/09/24 13:31
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		10	320697	DSJ	EET PHX	05/10/24 15:41
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 15:09
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:23

Client Sample ID: CH-CCR-FD06-0424

Lab Sample ID: 550-217871-2

Date Collected: 05/02/24 16:20

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/06/24 16:28
Total/NA	Analysis	300.0		20	320406	RDC	EET PHX	05/06/24 16:47
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		1	653682	NKC	EET DEN	05/15/24 16:11
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		1	320742	GLW	EET PHX	05/11/24 20:58
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		1	320656	DSJ	EET PHX	05/09/24 13:33
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		10	320697	DSJ	EET PHX	05/10/24 15:43
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 15:43
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:41

Client Sample ID: CH-CCR-M67A-0424

Lab Sample ID: 550-217871-3

Date Collected: 04/29/24 17:19

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Dissolved	Analysis	200.7		1	320742	GLW	EET PHX	05/11/24 21:01
Dissolved	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Dissolved	Analysis	200.8 LL		1	320656	DSJ	EET PHX	05/09/24 13:35

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-M67A-0424
Date Collected: 04/29/24 17:19
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 20:38

Client Sample ID: CH-CCR-M67A-0424
Date Collected: 04/29/24 17:19
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/06/24 17:05
Total/NA	Analysis	300.0		50	320406	RDC	EET PHX	05/06/24 17:24
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		1	653682	NKC	EET DEN	05/15/24 16:16
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		1	320742	GLW	EET PHX	05/11/24 21:05
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		100	320754	GLW	EET PHX	05/12/24 15:38
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		1	320656	DSJ	EET PHX	05/09/24 13:37
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		10	320697	DSJ	EET PHX	05/10/24 15:45
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 15:45
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:02
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 18:37
Total/NA	Analysis	SM 2320B		1	320536	ELN	EET PHX	05/08/24 14:05
Total/NA	Analysis	SM 2540C		1	320387	RGR	EET PHX	05/06/24 11:18 - 05/08/24 15:22 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:42

Client Sample ID: CH-CCR-FAP-0424
Date Collected: 05/02/24 10:58
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Dissolved	Analysis	200.7		100	320754	GLW	EET PHX	05/12/24 15:41
Dissolved	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Dissolved	Analysis	200.8 LL		20	320656	DSJ	EET PHX	05/09/24 14:00
Dissolved	Analysis	SM 5310B		50	320900	AKS	EET PHX	05/13/24 16:55

Client Sample ID: CH-CCR-FAP-0424
Date Collected: 05/02/24 10:58
Date Received: 05/03/24 10:10

Lab Sample ID: 550-217871-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		5	321208	RDC	EET PHX	05/20/24 16:06

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-FAP-0424

Lab Sample ID: 550-217871-6

Date Collected: 05/02/24 10:58

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1000	320480	RDC	EET PHX	05/08/24 10:59
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		50	653682	NKC	EET DEN	05/15/24 16:21
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		100	320754	GLW	EET PHX	05/12/24 15:45
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		20	320656	DSJ	EET PHX	05/09/24 14:02
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		20	320697	DSJ	EET PHX	05/10/24 15:33
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 15:47
Total/NA	Analysis	350.1		2	321173	CXK	EET PHX	05/17/24 16:51
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 11:10
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:44
Total/NA	Analysis	SM 5310B		40	320655	AKS	EET PHX	05/09/24 20:20

Client Sample ID: CH-CCR-Geronimo-0424

Lab Sample ID: 550-217871-7

Date Collected: 05/02/24 15:40

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Dissolved	Analysis	200.7		1	320742	GLW	EET PHX	05/11/24 21:22
Dissolved	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Dissolved	Analysis	200.8 LL		20	320656	DSJ	EET PHX	05/09/24 14:04
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 20:50

Client Sample ID: CH-CCR-Geronimo-0424

Lab Sample ID: 550-217871-8

Date Collected: 05/02/24 15:40

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/06/24 20:24
Total/NA	Analysis	300.0		200	320406	RDC	EET PHX	05/06/24 20:42
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		10	653682	NKC	EET DEN	05/15/24 16:25
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		1	320742	GLW	EET PHX	05/11/24 21:25
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		100	320754	GLW	EET PHX	05/12/24 15:48
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		20	320656	DSJ	EET PHX	05/09/24 14:30

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-Geronimo-0424

Lab Sample ID: 550-217871-8

Date Collected: 05/02/24 15:40

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		20	320697	DSJ	EET PHX	05/10/24 15:35
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 15:49
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:18
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 18:39
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 11:21
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:46
Total/NA	Analysis	SM 5310B		1	320655	AKS	EET PHX	05/09/24 20:50

Client Sample ID: CH-CCR-GeronimoD-0424

Lab Sample ID: 550-217871-9

Date Collected: 05/02/24 14:48

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Dissolved	Analysis	200.7		1	320742	GLW	EET PHX	05/11/24 21:28
Dissolved	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Dissolved	Analysis	200.8 LL		20	320656	DSJ	EET PHX	05/09/24 14:32
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 21:02

Client Sample ID: CH-CCR-GeronimoD-0424

Lab Sample ID: 550-217871-10

Date Collected: 05/02/24 14:48

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/06/24 21:01
Total/NA	Analysis	300.0		200	320406	RDC	EET PHX	05/06/24 21:19
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		10	653682	NKC	EET DEN	05/15/24 16:30
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		1	320742	GLW	EET PHX	05/11/24 21:32
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		100	320754	GLW	EET PHX	05/12/24 15:51
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		20	320656	DSJ	EET PHX	05/09/24 14:34
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		20	320697	DSJ	EET PHX	05/10/24 15:37
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 15:51
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:23
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 18:41
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 11:26

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-GeronimoD-0424

Lab Sample ID: 550-217871-10

Date Collected: 05/02/24 14:48

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:47
Total/NA	Analysis	SM 5310B		1	320655	AKS	EET PHX	05/09/24 21:02

Client Sample ID: CH-CCR-HuntB-0424

Lab Sample ID: 550-217871-11

Date Collected: 05/02/24 16:34

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Dissolved	Analysis	200.7		1	320742	GLW	EET PHX	05/11/24 21:35
Dissolved	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Dissolved	Analysis	200.8 LL		20	320656	DSJ	EET PHX	05/09/24 14:36
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 21:15

Client Sample ID: CH-CCR-HuntB-0424

Lab Sample ID: 550-217871-12

Date Collected: 05/02/24 16:34

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/06/24 21:37
Total/NA	Analysis	300.0		100	320406	RDC	EET PHX	05/06/24 21:56
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		10	653682	NKC	EET DEN	05/15/24 16:34
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		1	320742	GLW	EET PHX	05/11/24 21:39
Total/NA	Prep	200.7			320358	SGO	EET PHX	05/06/24 07:56
Total/NA	Analysis	200.7 Rev 4.4		100	320754	GLW	EET PHX	05/12/24 15:55
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		20	320656	DSJ	EET PHX	05/09/24 14:38
Total/NA	Prep	200.8			320356	SGO	EET PHX	05/06/24 07:45
Total/NA	Analysis	200.8 LL		20	320697	DSJ	EET PHX	05/10/24 15:39
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 15:53
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:24
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 18:43
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 11:32
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:48
Total/NA	Analysis	SM 5310B		1	320655	AKS	EET PHX	05/09/24 21:16

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-EW01-0424

Lab Sample ID: 550-217871-13
Matrix: Water
Date Collected: 05/02/24 14:28
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Dissolved	Analysis	200.7		1	320743	GLW	EET PHX	05/11/24 22:30
Dissolved	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Dissolved	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 15:44
Dissolved	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Dissolved	Analysis	200.8 LL		1	320601	DSJ	EET PHX	05/09/24 11:27
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 21:29

Client Sample ID: CH-CCR-EW01-0424

Lab Sample ID: 550-217871-14
Matrix: Water
Date Collected: 05/02/24 14:28
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/06/24 22:14
Total/NA	Analysis	300.0		100	320406	RDC	EET PHX	05/06/24 22:33
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		10	653682	NKC	EET DEN	05/15/24 16:39
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		1	320743	GLW	EET PHX	05/11/24 22:26
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		100	320822	JAC	EET PHX	05/12/24 16:43
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 15:46
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320601	DSJ	EET PHX	05/09/24 11:29
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 15:55
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:26
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 18:45
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 11:37
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:49
Total/NA	Analysis	SM 5310B		1	320655	AKS	EET PHX	05/09/24 21:28

Client Sample ID: CH-CCR-EW02-0424

Lab Sample ID: 550-217871-15
Matrix: Water
Date Collected: 05/02/24 15:04
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Dissolved	Analysis	200.7		1	320743	GLW	EET PHX	05/11/24 22:33
Dissolved	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Dissolved	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 15:48
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 21:42

Client Sample ID: CH-CCR-EW02-0424

Lab Sample ID: 550-217871-16

Date Collected: 05/02/24 15:04

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/06/24 22:51
Total/NA	Analysis	300.0		100	320406	RDC	EET PHX	05/06/24 23:09
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		10	653682	NKC	EET DEN	05/15/24 16:43
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		1	320743	GLW	EET PHX	05/11/24 22:36
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		100	320822	JAC	EET PHX	05/12/24 16:47
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 15:50
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320601	DSJ	EET PHX	05/09/24 11:31
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 15:57
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:27
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 19:09
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 12:09
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:51
Total/NA	Analysis	SM 5310B		1	320655	AKS	EET PHX	05/09/24 21:41

Client Sample ID: CH-CCR-EW03-0424

Lab Sample ID: 550-217871-17

Date Collected: 05/02/24 15:20

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Dissolved	Analysis	200.7		1	320743	GLW	EET PHX	05/11/24 22:40
Dissolved	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Dissolved	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 15:52
Dissolved	Analysis	SM 5310B		1	320900	AKS	EET PHX	05/13/24 21:54

Client Sample ID: CH-CCR-EW03-0424

Lab Sample ID: 550-217871-18

Date Collected: 05/02/24 15:20

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/07/24 00:05
Total/NA	Analysis	300.0		200	320406	RDC	EET PHX	05/07/24 00:23
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		10	653682	NKC	EET DEN	05/15/24 16:48
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		1	320743	GLW	EET PHX	05/11/24 22:43

Client Sample ID: CH-CCR-EW03-0424

Lab Sample ID: 550-217871-18

Date Collected: 05/02/24 15:20

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		100	320822	JAC	EET PHX	05/12/24 16:50
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 15:54
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320601	DSJ	EET PHX	05/09/24 11:33
Total/NA	Prep	245.1			320382	GLW	EET PHX	05/08/24 11:16
Total/NA	Analysis	245.1		1	320549	HHL	EET PHX	05/08/24 16:00
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:29
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 19:11
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 12:15
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:53
Total/NA	Analysis	SM 5310B		1	320776	AKS	EET PHX	05/11/24 01:16

Client Sample ID: CH-CCR-EW04-0424

Lab Sample ID: 550-217871-19

Date Collected: 05/02/24 16:10

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Dissolved	Analysis	200.7		1	320743	GLW	EET PHX	05/11/24 22:53
Dissolved	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Dissolved	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 15:56
Dissolved	Analysis	SM 5310B		1	320938	AKS	EET PHX	05/15/24 08:19

Client Sample ID: CH-CCR-EW04-0424

Lab Sample ID: 550-217871-20

Date Collected: 05/02/24 16:10

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/07/24 00:41
Total/NA	Analysis	300.0		200	320406	RDC	EET PHX	05/07/24 01:00
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		10	653682	NKC	EET DEN	05/15/24 16:52
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		1	320743	GLW	EET PHX	05/11/24 22:57
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		100	320822	JAC	EET PHX	05/12/24 16:53
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 15:59
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320601	DSJ	EET PHX	05/09/24 11:36

Client Sample ID: CH-CCR-EW04-0424

Lab Sample ID: 550-217871-20

Date Collected: 05/02/24 16:10

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	245.1			320596	HHL	EET PHX	05/09/24 12:21
Total/NA	Analysis	245.1		1	320629	HHL	EET PHX	05/09/24 17:39
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:30
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 19:13
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 12:22
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:54
Total/NA	Analysis	SM 5310B		1	320776	AKS	EET PHX	05/11/24 01:29

Client Sample ID: CH-CCR-GSX1R-0424

Lab Sample ID: 550-217871-21

Date Collected: 05/02/24 15:54

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Dissolved	Analysis	200.7		1	320743	GLW	EET PHX	05/11/24 23:00
Dissolved	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Dissolved	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 16:01
Dissolved	Analysis	SM 5310B		1	320938	AKS	EET PHX	05/15/24 07:35

Client Sample ID: CH-CCR-GSX1R-0424

Lab Sample ID: 550-217871-22

Date Collected: 05/02/24 15:54

Matrix: Water

Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/07/24 01:18
Total/NA	Analysis	300.0		200	320406	RDC	EET PHX	05/07/24 01:37
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		10	653682	NKC	EET DEN	05/15/24 17:19
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		1	320743	GLW	EET PHX	05/11/24 23:04
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		100	320822	JAC	EET PHX	05/12/24 16:57
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 16:09
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320601	DSJ	EET PHX	05/09/24 11:38
Total/NA	Prep	245.1			320596	HHL	EET PHX	05/09/24 12:21
Total/NA	Analysis	245.1		1	320629	HHL	EET PHX	05/09/24 17:41
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:32
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 19:15
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 12:27
Total/NA	Analysis	SM 2540C		1	320464	RGR	EET PHX	05/07/24 15:03 - 05/10/24 09:38 [1]

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Client Sample ID: CH-CCR-GSX1R-0424

Lab Sample ID: 550-217871-22

Date Collected: 05/02/24 15:54
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:55
Total/NA	Analysis	SM 5310B		1	320776	AKS	EET PHX	05/11/24 01:44

Client Sample ID: CH-CCR-EB01-0424

Lab Sample ID: 550-217871-23

Date Collected: 05/02/24 17:00
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Dissolved	Analysis	200.7		1	320743	GLW	EET PHX	05/11/24 23:07
Dissolved	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Dissolved	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 16:11
Dissolved	Analysis	SM 5310B		1	320938	AKS	EET PHX	05/15/24 08:33

Client Sample ID: CH-CCR-EB01-0424

Lab Sample ID: 550-217871-24

Date Collected: 05/02/24 17:00
Matrix: Water
Date Received: 05/03/24 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	320406	RDC	EET PHX	05/07/24 01:55
Total Recoverable	Prep	200.7			652277	AES	EET DEN	05/07/24 08:42
Total Recoverable	Analysis	200.7 Rev 4.4		1	654241	ADL	EET DEN	05/20/24 17:12
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		1	320743	GLW	EET PHX	05/11/24 23:10
Total/NA	Prep	200.7			320359	SGO	EET PHX	05/06/24 08:01
Total/NA	Analysis	200.7 Rev 4.4		100	320822	JAC	EET PHX	05/12/24 17:00
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320512	DSJ	EET PHX	05/07/24 16:13
Total/NA	Prep	200.8			320357	SGO	EET PHX	05/06/24 07:50
Total/NA	Analysis	200.8 LL		1	320601	DSJ	EET PHX	05/09/24 11:40
Total/NA	Prep	245.1			320596	HHL	EET PHX	05/09/24 12:21
Total/NA	Analysis	245.1		1	320629	HHL	EET PHX	05/09/24 17:43
Total/NA	Analysis	350.1		1	321173	CXK	EET PHX	05/17/24 15:33
Total/NA	Analysis	353.2		1	653767	BCR	EET DEN	05/15/24 19:17
Total/NA	Analysis	SM 2320B		1	320660	ELN	EET PHX	05/09/24 12:33
Total/NA	Analysis	SM 2540C		1	320575	RGR	EET PHX	05/09/24 08:50 - 05/13/24 08:37 [1]
Total/NA	Analysis	SM 4500 H+ B		1	320527	ELN	EET PHX	05/08/24 14:58
Total/NA	Analysis	SM 5310B		1	320776	AKS	EET PHX	05/11/24 01:55

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-217871-1
Project/Site: CCR Groundwater Monitoring

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-09-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8 LL	200.8	Water	Molybdenum
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0713	12-20-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Lithium

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-217871-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7	Dissolved Metals by ICP	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
200.8 LL	Metals (ICP/MS)	EPA	EET PHX
245.1	Mercury (CVAA)	EPA	EET PHX
350.1	Nitrogen, Ammonia (Low Level)	EPA	EET PHX
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PHX
SM 4500 H+ B	pH	SM	EET PHX
SM 5310B	Organic Carbon, Dissolved (DOC)	SM	EET PHX
SM 5310B	Organic Carbon, Total (TOC)	SM	EET PHX
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.7	Preparation, Total Metals	EPA	EET PHX
200.8	Preparation, Total Metals	EPA	EET PHX
245.1	Preparation, Mercury	EPA	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

217871

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Cody Miller		Date:	COC No:
Arizona Public Service	(480) 209-6529	Lab Contact: Linda Eshelman	Carrier:	1 of 5 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below ____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 - Alk. as	Sample Specific Notes:
CH-CCR-M44D-0424 -01	05/02/24	1200	G	W	9	N	Y	X			X	X		X		X	X	X					Low Flow, MS/MSD
CH-CCR-FD06-0424 -02	05/02/24	1620	G	W	3	N	Y	X			X	X		X		X	X	X					"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1	

550-217871 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

2-5°C | 3.5°C | ICE | CBO

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____		
Relinquished by:	Company: WSP	Date/Time: 5/13/24 1010	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 5/13/24 1010

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 217871

TestAmerica Laboratories, Inc.

6/14/2024

Client Contact	Cody Miller	Lab Contact: Linda Eshelman	Date:	COC No:
Arizona Public Service	(480) 209-6529		Carrier:	2 of 5 COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (HCO3 - Alk. as		Sample Specific Notes:
CH-CCR-M67A-0424 -03	04/29/24	1719	G	W	5	Y							X		X				X					Low Flow
CH-CCR-M67A-0424 -04	04/29/24	1719	G	W	5	N		X		X		X		X		X	X	X		X	X	X		"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	2	3	3	1		

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

2.5°C / 3.5°C / ICE ICP20

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: 5/3/24 1010	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 5/3/24 1010

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

217871

TestAmerica Laboratories, Inc.

6/14/2024

Client Contact	Cody Miller		Date:	COC No:
Arizona Public Service	(480) 209-6529	Lab Contact: Linda Eshelman	Carrier:	___3___ of ___5___ COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			Job / SDG No.:
Site: APS Cholla Power Plant (FAP)	☐ 2 days			
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-FAP-0424 -05	05/02/24	1058	G	W	5	Y						X		X					X					Surface Water Sample
CH-CCR-FAP-0424 -06	05/02/24	1058	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	Surface Water Sample
CH-CCR-GeronimoC-0424 -07	05/02/24	1540	G	W	5	Y						X		X					X					Seepage Pump Port Sample
CH-CCR-GeronimoC-0424 -08	05/02/24	1540	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	Seepage Pump Port Sample

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

		1	4	4	4	4	4	4	4	1	1	2	2	3	3	1	1	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

3.5°C/2.5°C/ICE/GP

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: WSP	Date/Time: 5/3/24 1010	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 5/3/24 1010

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TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

217871

TestAmerica Laboratories, Inc.

6/14/2024

Client Contact	Cody Miller		Date:	COC No:
Arizona Public Service	(480) 209-6529	Lab Contact: Linda Eshelman	Carrier:	___4___ of ___5___ COCs
4801 Cholla Lake Rd	Analysis Turnaround Time			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-GeronimoD-0424 -09	05/02/24	1448	G	W	5	Y						X		X					X					
CH-CCR-GeronimoD-0424 -10	05/02/24	1448	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	Seepage Pump Port Sample
CH-CCR-HuntB-0424 -11	05/02/24	1634	G	W	5	Y						X		X					X					"
CH-CCR-HuntB-0424 -12	05/02/24	1634	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	"
CH-CCR-EW01-0424 -13	05/02/24	1428	G	W	5	Y						X		X					X					"
CH-CCR-EW01-0424 -14	05/02/24	1428	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	"
CH-CCR-EW02-0424 -15	05/02/24	1504	G	W	5	Y						X		X					X					"
CH-CCR-EW02-0424 -16	05/02/24	1504	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	"
CH-CCR-EW03-0424 -17	05/02/24	1520	G	W	5	Y						X		X					X					"
CH-CCR-EW03-0424 -18	05/02/24	1520	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	"
CH-CCR-EW04-0424 -19	05/02/24	1610	G	W	5	Y						X		X					X					"
CH-CCR-EW04-0424 -20	05/02/24	1610	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	1	1	2	2	3	3	1	1	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

3.5°C | 2.5°C | 1.4 | CDT

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: WSP	Date/Time: 5/3/24 1040	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA-PHX	Date/Time: 5/3/24 1010

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

217871

6/14/2024

Client Contact	Cody Miller		Date:	COC No:
Arizona Public Service	(480) 209-6529	Lab Contact: Linda Eshelman	Carrier:	___5___ of ___5___ COCs
4801 Cholla Lake Rd	**Analysis Turnaround Time**			Sampler:
Joseph City, AZ 86032	☐ CALENDAR DAYS ☑ WORKING DAYS			**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
FAX	☑ 2 weeks			Lab Sampling:
Project Name: CCR Groundwater Monitoring	☐ 1 week			
Site: APS Cholla Power Plant (FAP)	☐ 2 days			Job / SDG No.:
PO #: 300592358	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 300.0 (Cl, F, SO4)	EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be)	EPA 200.7 - Total Lithium	EPA 200.7 - Dissolved (Fe, Mn)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Dissolved (As, Co)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 5310B (TOC)	SM 5310B (DOC)	SM 4500-NH3 D (NH3 as N)	353.2 (NO3+NO2 as N)	SM 2320B (CO3 Alk. as CaCO3)	SM 2320B (HCO3 Alk. as CaCO3)	Sample Specific Notes:
CH-CCR-GSX1R-0424 -21	05/02/24	1554	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	Seepage Pump Port Sample
CH-CCR-GSX1R-0424 -22	05/02/24	1554	G	W	5	Y						X		X					X					"
CH-CCR-EB01-0424 -23	05/02/24	1700	G	W	9	N		X	X		X		X		X	X	X	X		X	X	X	X	Equipment Blank
CH-CCR-EB01-0424 -24	05/02/24	1700	G	W	5	Y						X		X					X					"

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

	1	4	4	4	4	4	4	4	4	1	1	2	2	3	3	1	1						

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

3.5c/2.5c/ICE/ICE

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	BNSP	5/3/24 1000			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				EETA-PHX	5/3/24 1010

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone 602-437-3340

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39480.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217871-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 5/16/2024			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: APS - Cholla CCR & Power Plant (BAM)(FAP	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-CCR-M44D-0424 (550-217871-1)	5/2/24	12:00 Arizona		Water			X		3	
CH-CCR-M44D-0424 (550-217871-1MS)	5/2/24	12:00 Arizona	MS	Water			X		3	
CH-CCR-M44D-0424 (550-217871-1MSD)	5/2/24	12:00 Arizona	MSD	Water			X		3	
CH-CCR-FD06-0424 (550-217871-2)	5/2/24	16:20 Arizona		Water			X		1	
CH-CCR-M67A-0424 (550-217871-4)	4/29/24	17:19 Arizona		Water			X	X	2	
CH-CCR-FAP-0424 (550-217871-6)	5/2/24	10:58 Arizona		Water			X	X	2	
CH-CCR-Geronimo-0424 (550-217871-8)	5/2/24	15:40 Arizona		Water			X	X	2	
CH-CCR-GeronimoD-0424 (550-217871-10)	5/2/24	14:48 Arizona		Water			X	X	2	
CH-CCR-HuntB-0424 (550-217871-12)	5/2/24	16:34 Arizona		Water			X	X	2	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Eric	Date/Time: 05-03-24 16:05	Company: EETSW	Received by: Fedex	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 05/06/24 0910	Company EETSW
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.2, 0.1.2, IR; NFG

Ver: 06/08/2021

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39480.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Arizona, State Program - Arizona		Job #: 550-217871-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 5/16/2024			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: APS - Cholla CCR & Power Plant (BAM)(FAP	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Priority Pollutants	353.2_Pres	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-CCR-EW01-0424 (550-217871-14)	5/2/24	14:28 Arizona		Water			X	X	2	
CH-CCR-EW02-0424 (550-217871-16)	5/2/24	15:04 Arizona		Water			X	X	2	
CH-CCR-EW03-0424 (550-217871-18)	5/2/24	15:20 Arizona		Water			X	X	2	
CH-CCR-EW04-0424 (550-217871-20)	5/2/24	16:10 Arizona		Water			X	X	2	
CH-CCR-GSX1R-0424 (550-217871-22)	5/2/24	15:54 Arizona		Water			X	X	2	
CH-CCR-EB01-0424 (550-217871-24)	5/2/24	17:00 Arizona		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
	[illegible] 05-03-24	16:05	[illegible]	[illegible]		
	Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company
				[illegible]	05/06/24 0910	[illegible]
	Relinquished by:	Date/Time	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217871-1

Login Number: 217871
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217871-1

Login Number: 217871
List Number: 2
Creator: Little, Matthew L

List Source: Eurofins Denver
List Creation: 05/06/24 11:37 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

November 27, 2024

Revised Report

WSP (Formely Wood E&I)-Phoenix, AZ

Sample Delivery Group:	L1793219
Samples Received:	10/26/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

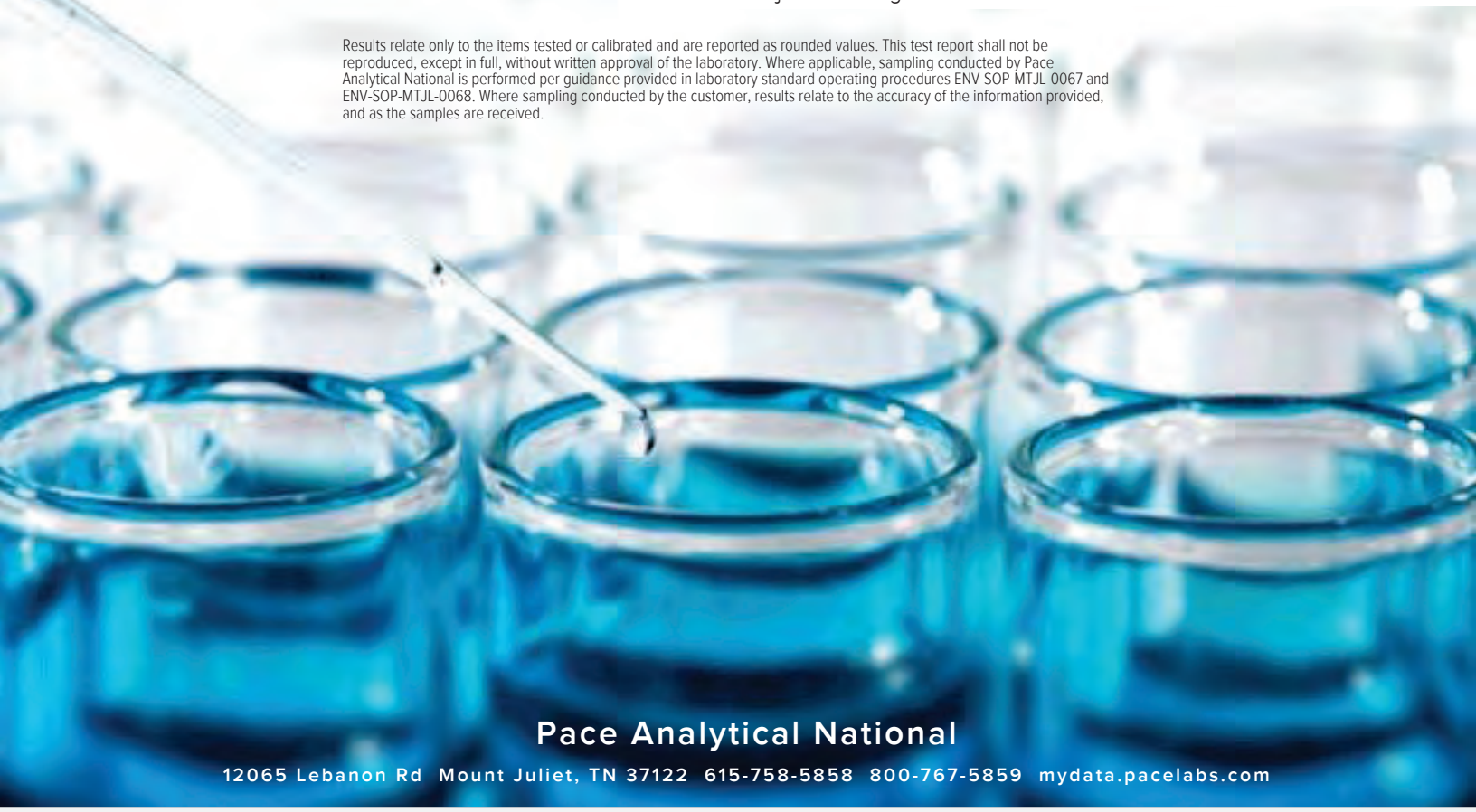
Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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CH-CCR-M63A-1024 L1793219-01 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 10:53 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 13:46	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	1	11/01/24 20:59	11/01/24 20:59	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	10	11/01/24 22:09	11/01/24 22:09	ZSA	Mt. Juliet, TN
Mercury by Method 7470A	WG2391327	1	10/30/24 15:13	10/30/24 21:28	AKB	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-FD01-1024 L1793219-02 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 12:40 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	1	11/01/24 22:44	11/01/24 22:44	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	10	11/01/24 23:01	11/01/24 23:01	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M59-1024 L1793219-03 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 13:48 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	1	11/01/24 23:19	11/01/24 23:19	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	10	11/01/24 23:36	11/01/24 23:36	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M61-1024 L1793219-04 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 15:13 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	20	11/02/24 00:11	11/02/24 00:11	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	5	11/01/24 23:54	11/01/24 23:54	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-FD02-1024 L1793219-05 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 13:37 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390373	1	10/31/24 12:10	10/31/24 12:10	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390373	10	10/31/24 12:23	10/31/24 12:23	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-FD05-1024 L1793219-06 GW

Collected by: Brad Hartman
Collected date/time: 10/21/24 16:20
Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390373	1	10/31/24 13:14	10/31/24 13:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390373	10	10/31/24 13:27	10/31/24 13:27	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Report Revision History

Level II Report - Version 1: 11/21/24 16:30

Project Narrative

Report reissue
L1793219 -01, -02, -03, -04, -05, -06 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	1740000		50000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.61	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-01 WG2390886: 7.61 at 19.6C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	283000		5470	10000	10	11/01/2024 22:09	WG2390371
Fluoride	225	R8	76.1	150	1	11/01/2024 20:59	WG2390371
Sulfate	667000		6370	50000	10	11/01/2024 22:09	WG2390371

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.0700	0.200	1	10/30/2024 21:28	WG2391327

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	2790000		100000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.71	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-02 WG2390886: 7.71 at 19.4C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1310000		5470	10000	10	11/01/2024 23:01	WG2390371
Fluoride	1510		76.1	150	1	11/01/2024 22:44	WG2390371
Sulfate	351000		6370	50000	10	11/01/2024 23:01	WG2390371

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	2810000		100000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.71	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-03 WG2390886: 7.71 at 19.3C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1330000		5470	10000	10	11/01/2024 23:36	WG2390371
Fluoride	1460		76.1	150	1	11/01/2024 23:19	WG2390371
Sulfate	358000		6370	50000	10	11/01/2024 23:36	WG2390371

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	2890000		100000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.70	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-04 WG2390886: 7.7 at 19.4C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1340000		10900	20000	20	11/02/2024 00:11	WG2390371
Fluoride	1550		380	750	5	11/01/2024 23:54	WG2390371
Sulfate	364000		3180	25000	5	11/01/2024 23:54	WG2390371

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	2890000		100000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.71	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-05 WG2390886: 7.71 at 19.2C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1260000		5470	10000	10	10/31/2024 12:23	WG2390373
Fluoride	1270		76.1	150	1	10/31/2024 12:10	WG2390373
Sulfate	338000		6370	50000	10	10/31/2024 12:23	WG2390373

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	1740000		50000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.68	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-06 WG2390886: 7.68 at 19.2C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	281000		5470	10000	10	10/31/2024 13:27	WG2390373
Fluoride	191		76.1	150	1	10/31/2024 13:14	WG2390373
Sulfate	699000		6370	50000	10	10/31/2024 13:27	WG2390373

Method Blank (MB)

(MB) R4139908-1 10/28/24 16:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Dissolved Solids	U		10000	10000

L1792170-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1792170-08 10/28/24 16:30 • (DUP) R4139908-3 10/28/24 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	10700000	10800000	1	0.745		10

L1793271-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793271-01 10/28/24 16:30 • (DUP) R4139908-4 10/28/24 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	1940000	2080000	1	6.72		10

Laboratory Control Sample (LCS)

(LCS) R4139908-2 10/28/24 16:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8750000	99.4	85.0-115	

L1793219-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-02 10/29/24 07:25 • (DUP) R4138794-2 10/29/24 07:25

Analyte	Original Result su	DUP Result su	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	7.71	7.71	1	0.000		1

Sample Narrative:

OS: 7.71 at 19.4C

DUP: 7.71 at 19.4C

Laboratory Control Sample (LCS)

(LCS) R4138794-1 10/29/24 07:25

Analyte	Spike Amount su	LCS Result su	LCS Rec. %	Rec. Limits %	LCS Qualifier
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:

LCS: 9.99 at 19.7C

Method Blank (MB)

(MB) R4141416-1 11/01/24 12:17

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1793200-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1793200-04 11/01/24 14:02 • (DUP) R4141416-3 11/01/24 14:19

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10900	11100	1	1.19		15
Fluoride	759	782	1	3.08		15
Sulfate	80700	81700	1	1.18		15

L1793219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-01 11/01/24 20:59 • (DUP) R4141416-6 11/01/24 21:17

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	225	431	1	62.8	R8	15

L1793219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-01 11/01/24 22:09 • (DUP) R4141416-9 11/01/24 22:26

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	283000	290000	10	2.59		15
Sulfate	667000	680000	10	1.94		15

Laboratory Control Sample (LCS)

(LCS) R4141416-2 11/01/24 12:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39600	99.1	80.0-120	
Fluoride	8000	8260	103	80.0-120	
Sulfate	40000	40400	101	80.0-120	

L1793200-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793200-04 11/01/24 14:02 • (MS) R4141416-4 11/01/24 14:36 • (MSD) R4141416-5 11/01/24 14:54

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	10900	49300	49100	95.8	95.5	1	80.0-120			0.258	15
Fluoride	8000	759	8920	8920	102	102	1	80.0-120			0.00224	15
Sulfate	40000	80700	106000	106000	63.2	63.7	1	80.0-120	M2	M2	0.172	15

L1793219-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793219-01 11/01/24 20:59 • (MS) R4141416-7 11/01/24 21:34 • (MSD) R4141416-8 11/01/24 21:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	8000	225	8760	8710	107	106	1	80.0-120			0.521	15

Method Blank (MB)

(MB) R4141353-1 10/31/24 11:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1793219-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-05 10/31/24 12:10 • (DUP) R4141353-3 10/31/24 12:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1270	1270	1	0.520		15

L1793219-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-05 10/31/24 12:23 • (DUP) R4141353-4 10/31/24 12:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1260000	1310000	10	3.86		15
Sulfate	338000	351000	10	3.58		15

L1793232-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1793232-06 10/31/24 18:08 • (DUP) R4141353-6 10/31/24 18:21

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1070	726	1	38.3	E4 R8	15
Fluoride	U	80.6	1	200	E4 R8	15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R4141353-2 10/31/24 11:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39400	98.6	80.0-120	
Fluoride	8000	8110	101	80.0-120	
Sulfate	40000	39900	99.8	80.0-120	

L1793219-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1793219-05 10/31/24 12:10 • (MS) R4141353-5 10/31/24 13:01

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	1300000	1080000	0.000	1	80.0-120	E1 M3
Fluoride	8000	1270	9410	102	1	80.0-120	
Sulfate	40000	363000	324000	0.000	1	80.0-120	E1 M3

L1793232-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793232-06 10/31/24 18:08 • (MS) R4141353-7 10/31/24 18:34 • (MSD) R4141353-8 10/31/24 18:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	1070	39900	39800	97.0	96.9	1	80.0-120			0.125	15
Fluoride	8000	U	8200	8120	102	102	1	80.0-120			0.888	15
Sulfate	40000	U	40400	40200	101	100	1	80.0-120			0.734	15

Method Blank (MB)

(MB) R4139947-1 10/30/24 21:23

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Mercury	U		0.0700	0.200

Laboratory Control Sample (LCS)

(LCS) R4139947-2 10/30/24 21:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Mercury	3.00	2.85	95.0	80.0-120	

L1793219-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793219-01 10/30/24 21:28 • (MS) R4139947-4 10/30/24 21:33 • (MSD) R4139947-5 10/30/24 21:36

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury	3.00	U	2.88	2.90	96.1	96.6	1	75.0-125			0.589	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 Diss Metals FF 250mlHDPE-HNO3	200.7 Total Metals 250mlHDPE-HNO3	200.8 Diss Metals FF 250mlHDPE-HNO3	200.8 Total Metals 250mlHDPE-HNO3	ALKCA, ~~ALKOH~~ 125mlHDPE-NoPres	Chloride 250mlHDPE-NoPres	DOC 250mlAmb-No Pres	Fluoride 250mlHDPE-NoPres	Hg 250mlHDPE-HNO3	NH3 250mlHDPENaThioH2SO4	Remarks	Sample # (lab only)
CH-CCR-MW3A-1024		GW		10-21-24	1053	4		X				X		X	X		MS/MSD	-01
CH-CCR-FD01-1024		GW			1240	4		X				X		X	X			-02
CH-CCR-MS-1024		GW			1348	3		X				X		X				-03
CH-CCR-MW1-1024		GW			1513	3		X				X		X				-04
CH-CCR-FD02-1024		GW			1337	3		X				X		X				-05
CH-CCR-FD05-1024		GW			1620	3		X				X		X				-06
		GW																
		GW																
		GW																
		GW																

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1793219
H167

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn MS9, MW1, FD02, FD05: 200.7: Total B, Total Ca
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co
MW3A + FD01 200.7: Total B, Total Ca, Total Be, Total Li K

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4072 9194 9104

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-25-24	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-25-24	1700	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
PNIAR			(14)

Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Temp: TEMP °C Bottles Received:
22+0.3=25 28

If preservation required by Login: Date/Time

Date: 10/26/24 Time: 930

Hold:

Condition: NCF / (OK)

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):
MGLE

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Sulfate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres	Remarks	Sample # (lab only)
CH-CCR-MW3A-1024		WW		10-21-24	1053	12		X	X		X		-0701
CH-CCR-FD01-1024		WW			1240	4		X	X		X		-0802
CH-CCR-MW9-1024		WW			1348	3		X	X		X		-0303
CH-CCR-MW1-1024		WW			1513	3		X	X		X		-04
CH-CCR-FD02-1024		WW			1337	3		X	X		X		-05
CH-CCR-FD05-1024		WW		↓	1620	3		X	X		X		-06
		WW											
		WW											
		WW											
		WW											

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1793219

Table #

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: Y __N
RAD Screen <0.5 mR/hr: Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
MGLE	10-25-24	1700	Shuttle Li
Shuttle Li	10-25-24	1800	FedEx
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
PNAC			(14)

Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Temp: T2.9 °C Bottles Received: 28
2,2+0,3=2,5

Date: 10/26/24 Time: 930

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 21, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on November 20, 2024, to report results for Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se, and Tl by method 200.8 for samples 10714203001 and 107142003002.

This report was futher revised on November 21, 2024, to report to the Method Dectection Limit (MDL).

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10714203001	**CH-CCR-M63A-1024**	Water	10/21/24 10:53	11/01/24 08:50
10714203002	**CH-CCR-FD01-1024**	Water	10/21/24 12:40	11/01/24 08:50
10714203003	**CH-CCR-M59-1024**	Water	10/21/24 13:48	11/01/24 08:50
10714203004	**CH-CCR-M61-1024**	Water	10/21/24 15:13	11/01/24 08:50
10714203005	**CH-CCR-FD02-1024**	Water	10/21/24 13:37	11/01/24 08:50
10714203006	**CH-CCR-FD05-1024**	Water	10/21/24 16:20	11/01/24 08:50

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10714203001	**CH-CCR-M63A-1024**	EPA 200.7	SMB	4	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10714203002	**CH-CCR-FD01-1024**	EPA 200.7	SMB	4	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10714203003	**CH-CCR-M59-1024**	EPA 200.7	SMB	2	PASI-M
10714203004	**CH-CCR-M61-1024**	EPA 200.7	SMB	2	PASI-M
10714203005	**CH-CCR-FD02-1024**	EPA 200.7	SMB	2	PASI-M
10714203006	**CH-CCR-FD05-1024**	EPA 200.7	SMB	2	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-M63A-1024 **Lab ID: 10714203001** Collected: 10/21/24 10:53 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/04/24 13:20	11/12/24 11:48	7440-41-7	
Boron	**215**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:48	7440-42-8	
Calcium	**151000**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:48	7440-70-2	
Potassium	**6470**	ug/L	2500	108	1	11/04/24 13:20	11/12/24 11:48	7440-09-7	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 09:57	11/12/24 12:38	7440-36-0	D3
Arsenic	**2.7**	ug/L	2.5	0.61	5	11/11/24 09:57	11/12/24 12:38	7440-38-2	
Barium	**27.1**	ug/L	1.5	0.35	5	11/11/24 09:57	11/12/24 12:38	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 09:57	11/12/24 12:38	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 09:57	11/12/24 12:38	7440-47-3	D3
Cobalt	**1.4J**	ug/L	2.5	0.48	5	11/11/24 09:57	11/12/24 12:38	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 09:57	11/12/24 12:38	7439-92-1	D3
Lithium	**81.1**	ug/L	2.5	0.92	5	11/11/24 09:57	11/12/24 12:38	7439-93-2	
Molybdenum	**3.4**	ug/L	2.5	0.63	5	11/11/24 09:57	11/12/24 12:38	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 09:57	11/12/24 12:38	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 09:57	11/12/24 12:38	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/06/24 13:24	11/08/24 10:49	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-FD01-1024 **Lab ID: 10714203002** Collected: 10/21/24 12:40 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/04/24 13:20	11/12/24 11:53	7440-41-7	
Boron	**498**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:53	7440-42-8	
Calcium	**77300**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:53	7440-70-2	
Potassium	**5160**	ug/L	2500	108	1	11/04/24 13:20	11/12/24 11:53	7440-09-7	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.087**	ug/L	0.50	0.087	1	11/11/24 09:57	11/12/24 13:20	7440-36-0	
Arsenic	**8.8**	ug/L	0.50	0.12	1	11/11/24 09:57	11/12/24 13:20	7440-38-2	
Barium	**22.6**	ug/L	0.30	0.070	1	11/11/24 09:57	11/12/24 13:20	7440-39-3	
Cadmium	**<0.030**	ug/L	0.080	0.030	1	11/11/24 09:57	11/12/24 13:20	7440-43-9	
Chromium	**<0.54**	ug/L	2.0	0.54	1	11/11/24 09:57	11/12/24 13:20	7440-47-3	
Cobalt	**0.21J**	ug/L	0.50	0.095	1	11/11/24 09:57	11/12/24 13:20	7440-48-4	
Lead	**<0.18**	ug/L	0.50	0.18	1	11/11/24 09:57	11/12/24 13:20	7439-92-1	
Lithium	**37.5**	ug/L	0.50	0.18	1	11/11/24 09:57	11/12/24 13:20	7439-93-2	
Molybdenum	**5.3**	ug/L	0.50	0.13	1	11/11/24 09:57	11/12/24 13:20	7439-98-7	
Selenium	**<0.074**	ug/L	0.50	0.074	1	11/11/24 09:57	11/12/24 13:20	7782-49-2	
Thallium	**<0.026**	ug/L	0.10	0.026	1	11/11/24 09:57	11/12/24 13:20	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/06/24 13:24	11/08/24 10:54	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-M59-1024 **Lab ID: 10714203003** Collected: 10/21/24 13:48 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**481**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:55	7440-42-8	
Calcium	**75600**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:55	7440-70-2	

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-M61-1024 **Lab ID: 10714203004** Collected: 10/21/24 15:13 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**481**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:56	7440-42-8	
Calcium	**78500**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:56	7440-70-2	

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-FD02-1024 **Lab ID: 10714203005** Collected: 10/21/24 13:37 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**471**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:58	7440-42-8	
Calcium	**76600**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:58	7440-70-2	

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-FD05-1024 **Lab ID: 10714203006** Collected: 10/21/24 16:20 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**220**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 12:00	7440-42-8	
Calcium	**154000**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 12:00	7440-70-2	

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

QC Batch: 978238
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714203001, 10714203002

METHOD BLANK: 5112222 Matrix: Water
Associated Lab Samples: 10714203001, 10714203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/08/24 10:46	

LABORATORY CONTROL SAMPLE: 5112223

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112224 5112225

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	5.2	5.1	104	102	70-130	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112226 5112227

Parameter	Units	10714206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	5.0	5.1	99	102	70-130	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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(612)607-1700

QUALITY CONTROL DATA

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

QC Batch: 977510
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714203001, 10714203002, 10714203003, 10714203004, 10714203005, 10714203006

METHOD BLANK: 5109199 Matrix: Water
Associated Lab Samples: 10714203001, 10714203002, 10714203003, 10714203004, 10714203005, 10714203006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/12/24 11:41	
Boron	ug/L	<16.0	150	16.0	11/12/24 11:41	
Calcium	ug/L	<31.8	500	31.8	11/12/24 11:41	
Potassium	ug/L	<108	2500	108	11/12/24 11:41	

LABORATORY CONTROL SAMPLE: 5109200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1010	101	85-115	
Boron	ug/L	1000	1020	102	85-115	
Calcium	ug/L	20000	19400	97	85-115	
Potassium	ug/L	20000	19300	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109201 5109202

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1090	1060	109	106	70-130	3	20	
Boron	ug/L	215	1000	1000	1330	1300	111	109	70-130	2	20	
Calcium	ug/L	151000	20000	20000	167000	167000	79	79	70-130	0	20	
Potassium	ug/L	6470	20000	20000	29200	28700	113	111	70-130	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109203 5109204

Parameter	Units	10714206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1090	1050	109	105	70-130	4	20	
Boron	ug/L	199	1000	1000	1390	1320	119	112	70-130	5	20	
Calcium	ug/L	322000	20000	20000	339000	339000	84	86	70-130	0	20	
Potassium	ug/L	9320	20000	20000	33600	32700	121	117	70-130	3	20	

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REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALITY CONTROL DATA

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

QC Batch: 978930
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714203001, 10714203002

METHOD BLANK: 5115658 Matrix: Water
Associated Lab Samples: 10714203001, 10714203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/12/24 12:12	
Arsenic	ug/L	0.15J	0.50	0.12	11/12/24 12:12	
Barium	ug/L	<0.070	0.30	0.070	11/12/24 12:12	
Cadmium	ug/L	<0.030	0.080	0.030	11/12/24 12:12	
Chromium	ug/L	<0.54	2.0	0.54	11/12/24 12:12	
Cobalt	ug/L	<0.095	0.50	0.095	11/12/24 12:12	
Lead	ug/L	<0.18	0.50	0.18	11/12/24 12:12	
Lithium	ug/L	<0.18	0.50	0.18	11/12/24 12:12	
Molybdenum	ug/L	<0.13	0.50	0.13	11/12/24 12:12	
Selenium	ug/L	<0.074	0.50	0.074	11/12/24 12:12	
Thallium	ug/L	<0.026	0.10	0.026	11/12/24 12:12	

LABORATORY CONTROL SAMPLE: 5115659

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	98.9	99	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	103	103	85-115	
Cadmium	ug/L	100	99.1	99	85-115	
Chromium	ug/L	100	108	108	85-115	
Cobalt	ug/L	100	111	111	85-115	
Lead	ug/L	100	106	106	85-115	
Lithium	ug/L	100	103	103	85-115	
Molybdenum	ug/L	100	98.6	99	85-115	
Selenium	ug/L	100	106	106	85-115	
Thallium	ug/L	100	102	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115660 5115661

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.44	100	100	98.0	100	98	100	70-130	2	20	
Arsenic	ug/L	2.7	100	100	108	109	106	106	70-130	0	20	
Barium	ug/L	27.1	100	100	127	128	99	101	70-130	1	20	
Cadmium	ug/L	<0.15	100	100	97.1	99.4	97	99	70-130	2	20	
Chromium	ug/L	<2.7	100	100	103	105	102	104	70-130	2	20	
Cobalt	ug/L	1.4J	100	100	107	108	106	107	70-130	1	20	

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(612)607-1700

QUALITY CONTROL DATA

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115660 5115661

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	<0.90	100	100	102	102	101	102	70-130	1	20	
Lithium	ug/L	81.1	100	100	183	185	101	104	70-130	1	20	
Molybdenum	ug/L	3.4	100	100	102	103	99	100	70-130	1	20	
Selenium	ug/L	<0.37	100	100	106	105	106	105	70-130	0	20	
Thallium	ug/L	<0.13	100	100	101	102	101	102	70-130	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115662 5115663

Parameter	Units	10714206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.44	100	100	98.1	97.0	98	97	70-130	1	20	
Arsenic	ug/L	4.4	100	100	109	108	105	103	70-130	1	20	
Barium	ug/L	32.4	100	100	134	132	102	100	70-130	1	20	
Cadmium	ug/L	<0.15	100	100	92.8	92.3	93	92	70-130	1	20	
Chromium	ug/L	<2.7	100	100	103	102	101	100	70-130	1	20	
Cobalt	ug/L	<0.48	100	100	103	102	103	102	70-130	1	20	
Lead	ug/L	<0.90	100	100	101	100	101	100	70-130	0	20	
Lithium	ug/L	52.1	100	100	152	151	100	98	70-130	1	20	
Molybdenum	ug/L	1.5J	100	100	98.5	98.3	97	97	70-130	0	20	
Selenium	ug/L	<0.37	100	100	99.6	99.5	99	99	70-130	0	20	
Thallium	ug/L	<0.13	100	100	100	99.9	100	100	70-130	0	20	

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10714203001	**CH-CCR-M63A-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203002	**CH-CCR-FD01-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203005	**CH-CCR-FD02-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203003	**CH-CCR-M59-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203004	**CH-CCR-M61-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203006	**CH-CCR-FD05-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203001	**CH-CCR-M63A-1024**	EPA 200.8	978930	EPA 200.8	979147
10714203002	**CH-CCR-FD01-1024**	EPA 200.8	978930	EPA 200.8	979147
10714203001	**CH-CCR-M63A-1024**	EPA 245.1	978238	EPA 245.1	978389
10714203002	**CH-CCR-FD01-1024**	EPA 245.1	978238	EPA 245.1	978389

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Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

WO#: 10714203

10714203

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. # P104414US024

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

terms.pdf

SDG # L1793219

H167

Acctnum: AMECTAZ
Template: T261974
Prelogin: P1107670
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 Diss Metals FF 250mlHDPE-HNO3	200.7 Total Metals 250mlHDPE-HNO3	200.8 Diss Metals FF 250mlHDPE-HNO3	200.8 Total Metals 250mlHDPE-HNO3	ALKCA, ~~ALKOH~~ ALK HCO3 125mlHDPE-NoPres	Chloride 250mlHDPE-NoPres	DOC 250mlAmb-No Pres	Fluoride 250mlHDPE-NoPres	Hg 250mlHDPE-HNO3	NH3 250mlHDPENaThioH2SO4	Remarks	Sample # (lab only)
CH-CCR-M63A-1024		GW		10-21-24	1053	~~4~~ 3		X				X		X	X		MS/MSD	-01
CH-CCR-FD01-1024		GW			1240	~~4~~ 3		X				X		X	X			-02
CH-CCR-M59-1024		GW			1348	3		X				X		X				-03
CH-CCR-M61-1024		GW			1513	3		X				X		X				-04
CH-CCR-FD02-1024		GW			1337	3		X				X		X				-05
CH-CCR-FD05-1024		GW			1620	~~3~~ 3		X				X		X				-06
		GW																
		GW																
		GW																
		GW																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co
M59, M61, FD02, FD05: 200.7: Total B, Total Ca
M63A + FD01 200.7: Total B, Total Ca, Total Be, Total Li K

pH. _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 4072 9194 9104

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
[signature]	10-25-24	1700	[signature]	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: TLAR °C 2.2+0.3=2.5 Bottles Received: 28
[signature]	10-25-24	1700	FedEx	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/26/24 Time: 930
PNPAR			[signature] (14)	

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

[signature] 10/1/24 8:50

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Sulfate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres							Remarks	Sample # (lab only)
CH-CCR-MW3A-1024		WW		10-21-24	1053	12		X	X		X								-070
CH-CCR-FD01-1024		WW			1240	4		X	X		X								-080
CH-CCR-MW9-1024		WW			1348	3		X	X		X								-03
CH-CCR-MW1-1024		WW			1513	3		X	X		X								-04
CH-CCR-FD02-1024		WW			1337	3		X	X		X								-05
CH-CCR-FD05-1024		WW		↓	1620	3		X	X		X								-06
		WW																	
		WW																	
		WW																	
		WW																	

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1743219

Table #

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	10-25-24	1700	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	10-25-24	1800	Fedex
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
PNRC			(14)

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp: 2.4 °C Bottles Received: 28
2,2+0,3=2,5

If preservation required by Login: Date/Time

Date: 10/26/24 Time: 930

Hold:

Condition: NCF / (OK)

11/11/24 8:30

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTVL **PROJECT #:** WO#: 10714203

PM: TKL Due Date: 11/15/24
CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 4041 0492 0891 ☐ See Exceptions form ENV-FRM-MIN4-0142
4041 0492 0880, 4041 0492 0870

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☑ None ☐ Other **Temp Blank:** ☑ YES ☐ NO **Type of Ice:** ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: +0.1 **Cooler Temp Read w/Temp Blank:** 1.5, 1.8, 1.8 °C **Cooler Temp Corrected w/Temp Blank:** 1.6, 1.9, 1.9 °C	**Average Corrected Temp (no Temp Blank Only):** _____ °C
NOTE: *Temp should be above freezing to 6°C.*	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): _____	**Initials & Date of Person Examining Contents:** SMC 11/1/24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6. 7 day 40
Sufficient Sample Volume?	☑	☐		7. 1: 2 BP3N
Correct Containers Used?	☑	☐	☐	8. 2-6: 1 BP3N
– Pace Containers Used?	☐	☑		
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		**11. If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☑	☐	☐	12. Sample #: 1: 2 / 2 2-6: 1 / 1
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☑	☐	☐	☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				pH Paper Lot # (Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip): 205224
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ **Date:** 11/01/24

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: SMC **Line:** 3

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1793219	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	8-Nov	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Metals	Residual Chlorine (Y/N)	
1	CH-CCR-M63A-1024	WT				21-Oct	10:53		1								1		X		MS/MSD, 200.7 - BE, B, CA, K,
2	CH-CCR-FD01-1024	WT				21-Oct	12:40		1								1		X		200.7 - BE, B, CA, K, LI, HG
3	CH-CCR-M59-1024	WT				21-Oct	13:48		1								1		X		200.7 - B, CA
4	CH-CCR-M61-1024	WT				21-Oct	15:13		1								1		X		200.7 - B, CA
5	CH-CCR-FD02-1024	WT				21-Oct	13:37		1								1		X		200.7 - B, CA
6	CH-CCR-FD05-1024	WT				21-Oct	16:20		1								1		X		200.7 - B, CA
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	31-Oct	14:21				
Pace Analytical Batch: WG2393148							
Pace Analytical SDGs: L1793219							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	**DATE Signed:**				

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

ANALYTICAL REPORT

December 13, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

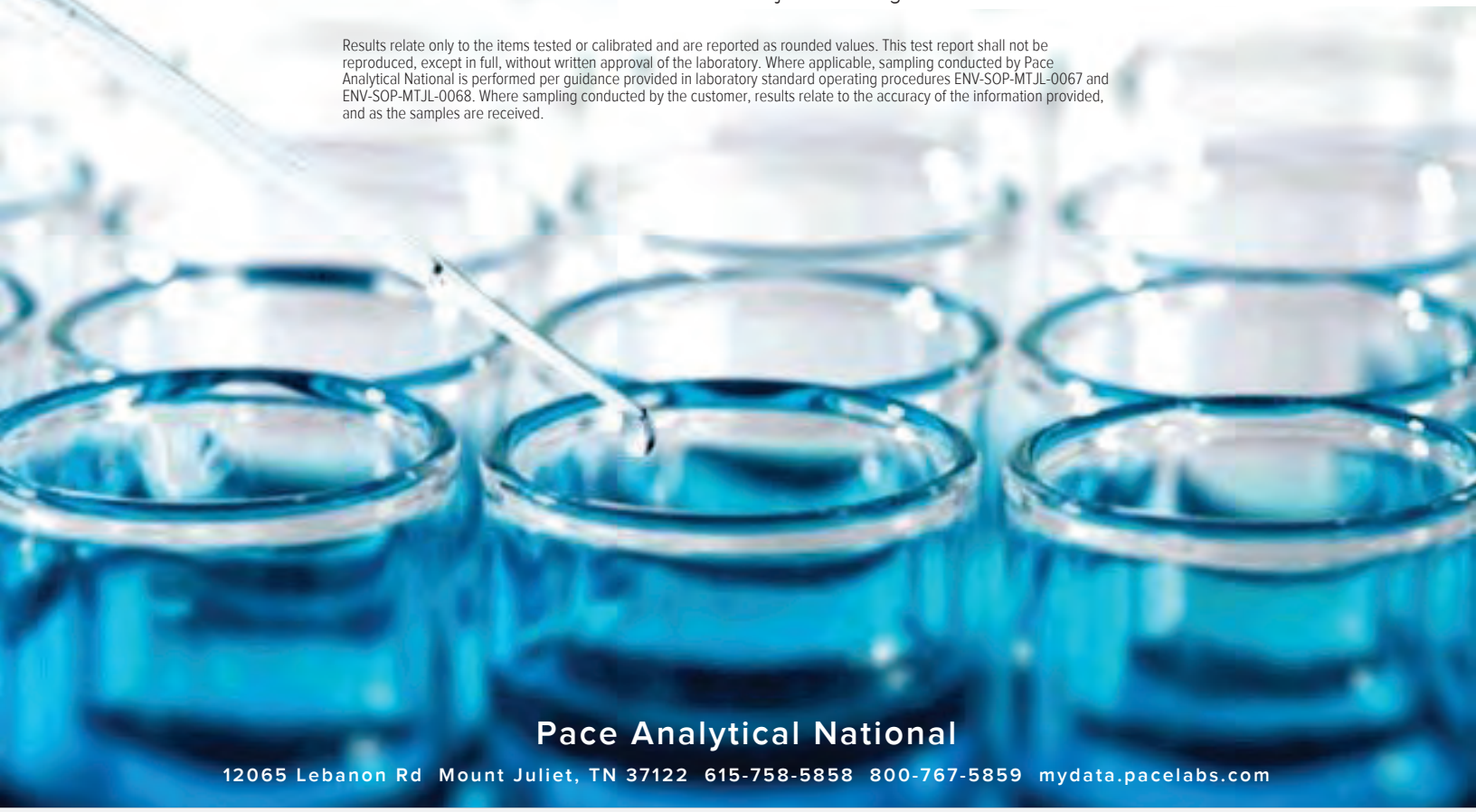
Sample Delivery Group:	L1800186
Samples Received:	11/15/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-CCR-M44D-1024 L1800186-01 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 15:02 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	1	11/22/24 07:19	11/22/24 07:19	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	10	11/22/24 08:11	11/22/24 08:11	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402750	1	11/15/24 21:45	11/15/24 21:45	BRT	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M54-1024 L1800186-02 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 16:37 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	20	11/22/24 08:46	11/22/24 08:46	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	5	11/22/24 08:29	11/22/24 08:29	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402751	1	11/16/24 16:20	11/16/24 16:20	KRB	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CH-CCR-W305-1024 L1800186-03 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 17:22 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404160	1	11/19/24 10:37	11/19/24 10:37	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	100	11/22/24 09:21	11/22/24 09:21	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	5	11/22/24 09:03	11/22/24 09:03	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2403372	1	11/17/24 19:04	11/17/24 19:04	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2403942	1	11/18/24 22:52	11/18/24 22:52	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402750	1	11/15/24 21:45	11/15/24 21:45	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2401035	1	11/16/24 08:00	11/16/24 13:33	AF	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CH-CCR-MW79A-1024 L1800186-04 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 18:10 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404889	1	11/20/24 10:41	11/20/24 10:41	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	100	11/22/24 09:56	11/22/24 09:56	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	5	11/22/24 09:38	11/22/24 09:38	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2403372	1	11/17/24 19:06	11/17/24 19:06	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2403942	1	11/18/24 22:53	11/18/24 22:53	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2401035	1	11/16/24 08:00	11/16/24 14:10	AF	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Project Narrative

L1800186 -01, -02, -03, -04 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2300		50.0	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1110		5.47	10.0	10	11/22/2024 08:11	WG2402892
Fluoride	0.717		0.0761	0.150	1	11/22/2024 07:19	WG2402892
Sulfate	309		6.37	50.0	10	11/22/2024 08:11	WG2402892

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.53	H3	1	11/15/2024 21:45	WG2402750

Sample Narrative:

L1800186-01 WG2402750: 7.53 at 18.2C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3140		100	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1500		10.9	20.0	20	11/22/2024 08:46	WG2402892
Fluoride	1.35		0.380	0.750	5	11/22/2024 08:29	WG2402892
Sulfate	377		3.18	25.0	5	11/22/2024 08:29	WG2402892

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.03	H3	1	11/16/2024 16:20	WG2402751

Sample Narrative:

L1800186-02 WG2402751: 8.03 at 18.8C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	7280		200	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	103		4.75	20.0	1	11/19/2024 10:37	WG2404160

Sample Narrative:
L1800186-03 WG2404160: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2340		54.7	100	100	11/22/2024 09:21	WG2402892
Fluoride	0.510	E4	0.380	0.750	5	11/22/2024 09:03	WG2402892
Sulfate	2350		63.7	500	100	11/22/2024 09:21	WG2402892

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	0.104		0.0539	0.100	1	11/17/2024 19:04	WG2403372

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0435	0.200	1	11/18/2024 22:52	WG2403942

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.49	H3	1	11/15/2024 21:45	WG2402750

Sample Narrative:
L1800186-03 WG2402750: 7.49 at 18C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	2.40	H3	0.106	1.00	1	11/16/2024 13:33	WG2401035

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	7460		200	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	124		4.75	20.0	1	11/20/2024 10:41	WG2404889

Sample Narrative:
L1800186-04 WG2404889: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2440		54.7	100	100	11/22/2024 09:56	WG2402892
Fluoride	0.697	E4	0.380	0.750	5	11/22/2024 09:38	WG2402892
Sulfate	2390		63.7	500	100	11/22/2024 09:56	WG2402892

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	U		0.0539	0.100	1	11/17/2024 19:06	WG2403372

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0435	0.200	1	11/18/2024 22:53	WG2403942

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.34	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:
L1800186-04 WG2403119: 7.34 at 20.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	1.68	B1 H3	0.106	1.00	1	11/16/2024 14:10	WG2401035

Method Blank (MB)

(MB) R4147670-1 11/17/24 12:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1799799-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1799799-15 11/17/24 12:24 • (DUP) R4147670-3 11/17/24 12:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1630	1690	1	3.32		10

L1800186-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-04 11/17/24 12:24 • (DUP) R4147670-4 11/17/24 12:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	7460	7480	1	0.268		10

Laboratory Control Sample (LCS)

(LCS) R4147670-2 11/17/24 12:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8740	99.3	85.0-115	

Method Blank (MB)

(MB) R4147883-2 11/19/24 09:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Bicarbonate	U		4.75	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1799027-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799027-01 11/19/24 09:29 • (DUP) R4147883-3 11/19/24 09:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	109	110	1	0.963		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1800977-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-04 11/19/24 11:29 • (DUP) R4147883-4 11/19/24 11:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	500	510	1	2.00		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148557-2 11/20/24 10:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Bicarbonate	U		4.75	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800186-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-04 11/20/24 10:41 • (DUP) R4148557-3 11/20/24 10:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	124	126	1	1.10		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1801469-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1801469-06 11/20/24 12:52 • (DUP) R4148557-4 11/20/24 12:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	248	250	1	0.956		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4149387-1 11/21/24 23:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1800107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800107-01 11/21/24 23:46 • (DUP) R4149387-3 11/22/24 00:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	13.2	13.0	1	1.69		15
Sulfate	32.6	32.7	1	0.410		15

L1800133-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800133-01 11/22/24 00:56 • (DUP) R4149387-6 11/22/24 01:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.07	0.973	1	9.12	E4	15
Fluoride	U	U	1	0.000		15
Sulfate	1.18	1.21	1	1.81	E4	15

Laboratory Control Sample (LCS)

(LCS) R4149387-2 11/21/24 23:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.4	101	90.0-110	
Fluoride	8.00	8.21	103	90.0-110	
Sulfate	40.0	41.8	104	90.0-110	

L1800107-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800107-01 11/21/24 23:46 • (MS) R4149387-4 11/22/24 00:21 • (MSD) R4149387-5 11/22/24 00:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	13.2	52.2	52.1	97.4	97.1	1	90.0-110			0.206	15
Sulfate	40.0	32.6	68.6	69.1	90.1	91.3	1	90.0-110			0.673	15

L1800133-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800133-01 11/22/24 00:56 • (MS) R4149387-7 11/22/24 01:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	1.07	41.8	102	1	90.0-110	
Fluoride	8.00	U	8.30	104	1	90.0-110	
Sulfate	40.0	1.18	42.6	104	1	90.0-110	

Method Blank (MB)

(MB) R4147080-1 11/17/24 18:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ammonia Nitrogen	U		0.0539	0.100

L1800102-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800102-01 11/17/24 18:40 • (DUP) R4147080-3 11/17/24 18:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	U	U	1	0.000		10

L1800107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800107-01 11/17/24 18:54 • (DUP) R4147080-6 11/17/24 18:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	0.0940	0.0760	1	21.2	E4 R8	10

Laboratory Control Sample (LCS)

(LCS) R4147080-2 11/17/24 18:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	7.50	7.27	97.0	90.0-110	

L1800102-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800102-01 11/17/24 18:40 • (MS) R4147080-4 11/17/24 18:43 • (MSD) R4147080-5 11/17/24 18:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	U	4.79	4.77	95.8	95.4	1	90.0-110			0.418	10

L1800107-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800107-01 11/17/24 18:54 • (MS) R4147080-7 11/17/24 18:57 • (MSD) R4147080-8 11/17/24 18:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	0.0940	5.09	4.94	99.8	96.8	1	90.0-110			2.99	10

Method Blank (MB)

(MB) R4147506-1 11/18/24 22:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0435	0.200

L1797996-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797996-01 11/18/24 22:30 • (DUP) R4147506-3 11/18/24 22:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1800080-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800080-01 11/18/24 22:37 • (DUP) R4147506-6 11/18/24 22:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4147506-2 11/18/24 22:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.52	101	90.0-110	

L1797996-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797996-01 11/18/24 22:30 • (MS) R4147506-4 11/18/24 22:33 • (MSD) R4147506-5 11/18/24 22:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.52	2.41	101	96.4	1	90.0-110			4.46	20

L1800080-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800080-01 11/18/24 22:37 • (MS) R4147506-7 11/18/24 22:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.43	97.2	1	90.0-110	

L1800057-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800057-02 11/15/24 21:45 • (DUP) R4146737-2 11/15/24 21:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.70	5.69	1	0.176		1

Sample Narrative:

OS: 5.7 at 18.7C

DUP: 5.69 at 18.6C

L1800309-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1800309-05 11/15/24 21:45 • (DUP) R4146737-3 11/15/24 21:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.83	6.83	1	0.000		1

Sample Narrative:

OS: 6.83 at 19.8C

DUP: 6.83 at 19.7C

Laboratory Control Sample (LCS)

(LCS) R4146737-1 11/15/24 21:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.02 at 19.7C

L1799375-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799375-01 11/16/24 16:20 • (DUP) R4146899-2 11/16/24 16:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.04	7.06	1	0.284		1

Sample Narrative:

OS: 7.04 at 19.2C

DUP: 7.06 at 19.1C

L1800197-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800197-01 11/16/24 16:20 • (DUP) R4146899-3 11/16/24 16:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.64	7.64	1	0.000		1

Sample Narrative:

OS: 7.64 at 19C

DUP: 7.64 at 19C

Laboratory Control Sample (LCS)

(LCS) R4146899-1 11/16/24 16:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 19.7C

L1800091-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800091-01 11/18/24 11:40 • (DUP) R4147236-2 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.66	7.67	1	0.130		1

Sample Narrative:

OS: 7.66 at 19.6C

DUP: 7.67 at 19.9C

L1800923-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800923-04 11/18/24 11:40 • (DUP) R4147236-3 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.33	8.32	1	0.120		1

Sample Narrative:

OS: 8.33 at 19.7C

DUP: 8.32 at 19.9C

Laboratory Control Sample (LCS)

(LCS) R4147236-1 11/18/24 11:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 20C

Method Blank (MB)

(MB) R4147321-2 11/16/24 10:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
DOC	0.170	E4	0.106	1.00

L1800186-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-03 11/16/24 13:33 • (DUP) R4147321-5 11/16/24 13:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	2.40	2.28	1	4.74		20

Laboratory Control Sample (LCS)

(LCS) R4147321-1 11/16/24 10:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
DOC	25.0	24.0	96.0	85.0-115	

L1800186-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800186-04 11/16/24 14:10 • (MS) R4147321-6 11/16/24 15:20 • (MSD) R4147321-7 11/16/24 15:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25.0	1.68	26.5	26.5	99.2	99.1	1	80.0-120			0.151	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
R8	Sample RPD exceeded the method acceptance limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

~~Wood~~ WSP
4600 E. Washington St
Suite 600
Phoenix, AZ 85034

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

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Mount Juliet, TN 37122
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Report to: ~~Jeff~~ Samantha O'Shea

Email To: samantha.oshea@wsp.com; natalie.chrismalaz

Project Description: APS - Cholla

City/State Collected: Joseph City, AZ

Phone: 602-733-6110
Fax:

Client Project #

Lab Project # AMECTAZ-APS Cholla

Collected by (print): Nicolas Garnand

Site/Facility ID #

P.O. #

Collected by (signature): Nicolas Garnand

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # 00097019

Date Results Needed

L# L1800186

Tal C160

Acctnum: AMECTAZ
Template: T259142
Prelogin: p1097829
TSR: Daphne Richards
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CL, Fl, SO4, pH	TDS	200.7	200.7 Field filter - Diss Fe, Diss Mn	200.8	200.8 Field filter -Diss As, Diss Co	TOC - 5M5310B	DOC -SM5310B - Field Filter	SM4500NH3G - NH3 as N	353.2 NO3+NO2 sN	Remarks	Sample # (lab only)
									<2	<2	<2	<2			<2	<2		
CH- CCR- M44D - 1024		WW		11/11/24	1502	4	X	X	X		X							-01
CH- CCR- M54- 1024		WW		11/11/24	1637	3	X	X	X									-02
CH- CCR- W305 1024		WW		11/11/24	1722	10	X	X	X	X	X	X		X	X	X		-03
CH- CCR- MW79A - 1024		WW		11/11/24	1810	10	X	X	X	X	X	X		X	X	X		-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____
Flow Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 4102 9171 9341

PH – 10BDH0941
TRC – 3327A333

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Nicolas Garnand	11/14/24	1653	[signature]		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
[signature]	11/14/24	1800	FedEx	TUR9 0.940=0.9 27	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK
			Ashley Barlett	11/15/2024 0900	

PNPAZ

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Phoenix, AZ 85034

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: ~~Jeff~~ Samantha O'Shea

Email To: samantha.oshea@wsp.com; natalie.chrismalaz

Project Description: APS - Cholla

City/State Collected: Joseph City, AZ

Phone: 602-733-6110
Fax:

Client Project #

Lab Project # AMECTAZ - APSCHOLLA

L# L1800180

Table #

Collected by (print): Nicolas Garnand

Site/Facility ID #

P.O. #

Acctnum: AMECTAZ

Template: T259142

Prelogin: p1097829

TSR: Daphne Richards

PB:

Collected by (signature): Nicolas Garnand

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # 00097019

Date Results Needed

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SM2320B - CO3, Alkalinity as CaCO3	SM2320B - HCo3 Alkalinity as CaCO3	245.1 Hg, included in 200.7 unfiltered	Remarks	Sample # (lab only)
CH- CCR- M44D - 1024		WW		11/11/24	1502	4					-01
CH- CCR- M54- 1024		WW		11/11/24	1637	3					-02
CH- CCR- W305 1024		WW		11/11/24	1722	10		X			-03
CH- CCR- MW79A - 1024		WW		11/11/24	1810	10		X			-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: Y __N
Preservation Correct/Checked: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Garnand	11/14/24	1653	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/14/24	1800	Fed Ex
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Ashley Baxter

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:
TEMP 0.9+0=0.9 27

Date: 11/15/2024 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPAZ

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 12, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 19, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on December 12, 2024, to add method 245.1 to Pace sample 10716159-003 and -004.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10716159001	**CH-CCR-M44D-1024**	Water	11/11/24 15:02	11/19/24 09:00
10716159002	**CH-CCR-M54-1024**	Water	11/11/24 16:37	11/19/24 09:00
10716159003	**CH-CCR-W305-1024**	Water	11/11/24 17:22	11/19/24 09:00
10716159004	**CH-CCR-MW79A-1024**	Water	11/11/24 18:10	11/19/24 09:00

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Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10716159001	**CH-CCR-M44D-1024**	EPA 200.7	IP	4	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716159002	**CH-CCR-M54-1024**	EPA 200.7	IP	2	PASI-M
10716159003	**CH-CCR-W305-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.7	DM	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716159004	**CH-CCR-MW79A-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.7	DM	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-M44D-1024 **Lab ID: 10716159001** Collected: 11/11/24 15:02 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:19	7440-41-7	
Boron	**238**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:19	7440-42-8	
Calcium	**77200**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:19	7440-70-2	
Magnesium	**46100**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:19	7439-95-4	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:33	7440-36-0	D3
Arsenic	**0.76J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:33	7440-38-2	D3
Barium	**19.3**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:33	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:33	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:33	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:33	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:33	7439-92-1	D3
Lithium	**39.1**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:33	7439-93-2	
Molybdenum	**2.2J**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:33	7439-98-7	D3
Selenium	**0.66J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:33	7782-49-2	D3
Thallium	**0.28J**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:33	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/02/24 06:17	12/03/24 10:54	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-M54-1024 **Lab ID: 10716159002** Collected: 11/11/24 16:37 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**522**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:24	7440-42-8	
Calcium	**90400**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:24	7440-70-2	

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ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-W305-1024 **Lab ID: 10716159003** Collected: 11/11/24 17:22 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:26	7440-41-7	
Boron	**464**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:26	7440-42-8	
Calcium	**632000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:26	7440-70-2	
Iron	**247**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:26	7439-89-6	
Magnesium	**112000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:26	7439-95-4	
Manganese	**5380**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:26	7439-96-5	
Potassium	**4600**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:26	7440-09-7	
Sodium	**1510000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:12	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**208**	ug/L	50.0	7.5	1	11/27/24 11:02	12/02/24 12:33	7439-89-6	
Manganese, Dissolved	**5270**	ug/L	5.0	0.50	1	11/27/24 11:02	12/02/24 12:33	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:47	7440-36-0	D3
Arsenic	**0.84J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:47	7440-38-2	D3
Barium	**10.6**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:47	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:47	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:47	7440-47-3	D3
Cobalt	**14.4**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:47	7440-48-4	
Lead	**1.3J**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:47	7439-92-1	D3
Lithium	**190**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:47	7439-93-2	
Molybdenum	**19.9**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:47	7439-98-7	
Selenium	**0.54J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:47	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:47	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.66**	ug/L	2.5	0.66	5	11/27/24 11:02	12/02/24 23:35	7440-38-2	D3
Cobalt, Dissolved	**14.8**	ug/L	2.5	0.20	5	11/27/24 11:02	12/03/24 16:53	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/09/24 05:48	12/09/24 11:07	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-MW79A-1024 **Lab ID: 10716159004** Collected: 11/11/24 18:10 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:27	7440-41-7	
Boron	**363**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:27	7440-42-8	
Calcium	**688000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:27	7440-70-2	
Iron	**90.9**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:27	7439-89-6	
Magnesium	**93300**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:27	7439-95-4	
Manganese	**4060**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:27	7439-96-5	
Potassium	**13700**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:27	7440-09-7	
Sodium	**1640000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:14	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**17.4J**	ug/L	50.0	7.5	1	11/27/24 11:02	12/02/24 12:38	7439-89-6	
Manganese, Dissolved	**3980**	ug/L	5.0	0.50	1	11/27/24 11:02	12/02/24 12:38	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:50	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:50	7440-38-2	D3
Barium	**11.1**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:50	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:50	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:50	7440-47-3	D3
Cobalt	**10.6**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:50	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:50	7439-92-1	D3
Lithium	**138**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:50	7439-93-2	
Molybdenum	**13.9**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:50	7439-98-7	
Selenium	**0.58J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:50	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:50	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.66**	ug/L	2.5	0.66	5	11/27/24 11:02	12/02/24 23:40	7440-38-2	D3
Cobalt, Dissolved	**10.4**	ug/L	2.5	0.20	5	11/27/24 11:02	12/03/24 16:57	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/09/24 05:48	12/09/24 11:11	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 982136
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159001

METHOD BLANK: 5131961 Matrix: Water
Associated Lab Samples: 10716159001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	12/03/24 10:51	

LABORATORY CONTROL SAMPLE: 5131962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5131963 5131964

Parameter	Units	10716376003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.8	4.6	97	92	70-130	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 983405
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159003, 10716159004

METHOD BLANK: 5137795 Matrix: Water
Associated Lab Samples: 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	12/09/24 11:04	

LABORATORY CONTROL SAMPLE: 5137796

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5137797 5137798

Parameter	Units	10716159003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	5.0	4.8	99	95	70-130	4	20	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981154
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159001, 10716159002, 10716159003, 10716159004

METHOD BLANK: 5126332 Matrix: Water
Associated Lab Samples: 10716159001, 10716159002, 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/26/24 15:16	
Boron	ug/L	<16.0	150	16.0	11/26/24 15:16	
Calcium	ug/L	<31.8	500	31.8	11/26/24 15:16	
Iron	ug/L	<7.5	50.0	7.5	11/26/24 15:16	
Magnesium	ug/L	<28.9	500	28.9	11/26/24 15:16	
Manganese	ug/L	<0.50	5.0	0.50	11/26/24 15:16	
Potassium	ug/L	<108	2500	108	11/26/24 15:16	
Sodium	ug/L	504J	1000	45.4	11/26/24 15:16	P8

LABORATORY CONTROL SAMPLE: 5126333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1030	103	85-115	
Boron	ug/L	1000	1040	104	85-115	
Calcium	ug/L	20000	19400	97	85-115	
Iron	ug/L	20000	20100	101	85-115	
Magnesium	ug/L	20000	19500	97	85-115	
Manganese	ug/L	1000	1030	103	85-115	
Potassium	ug/L	20000	20100	100	85-115	
Sodium	ug/L	20000	19900	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5126334 5126335

Parameter	Units	10716159001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1010	1050	101	105	70-130	3	20	
Boron	ug/L	238	1000	1000	1260	1300	102	106	70-130	3	20	
Calcium	ug/L	77200	20000	20000	93400	95500	81	92	70-130	2	20	
Iron	ug/L		20000	20000	34500	35300	92	96	70-130	2	20	
Magnesium	ug/L	46100	20000	20000	64400	65700	92	98	70-130	2	20	
Manganese	ug/L		1000	1000	1290	1320	97	101	70-130	3	20	
Potassium	ug/L		20000	20000	28400	29100	116	120	70-130	3	20	
Sodium	ug/L		20000	20000	792000	787000	104	79	70-130	1	20	

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(612)607-1700

QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

MATRIX SPIKE SAMPLE: 5126336

Parameter	Units	10716376024 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	1050	105	70-130	
Boron	ug/L	3670	1000	4690	102	70-130	
Calcium	ug/L	490000	20000	499000	45	70-130	P6
Iron	ug/L	207	20000	19600	97	70-130	
Magnesium	ug/L	263000	20000	279000	78	70-130	
Manganese	ug/L	130	1000	1130	100	70-130	
Potassium	ug/L	31000	20000	54300	116	70-130	
Sodium	ug/L	1460000	20000	1320000	-734	70-130	P6

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981791
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159003, 10716159004

METHOD BLANK: 5129739 Matrix: Water
Associated Lab Samples: 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<7.5	50.0	7.5	12/02/24 12:02	
Manganese, Dissolved	ug/L	<0.50	5.0	0.50	12/02/24 12:02	

LABORATORY CONTROL SAMPLE: 5129740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	20000	19100	96	85-115	
Manganese, Dissolved	ug/L	1000	982	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5129741 5129742

Parameter	Units	10714271001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	10.7J	20000	20000	19500	19300	97	97	70-130	1	20	
Manganese, Dissolved	ug/L	27.6	1000	1000	1030	1030	100	100	70-130	1	20	

MATRIX SPIKE SAMPLE: 5129743

Parameter	Units	10714271011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	<7.5	20000	19000	95	70-130	
Manganese, Dissolved	ug/L	23.2	1000	994	97	70-130	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981500
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159001, 10716159003, 10716159004

METHOD BLANK: 5128271 Matrix: Water
Associated Lab Samples: 10716159001, 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/27/24 09:27	
Arsenic	ug/L	<0.12	0.50	0.12	11/27/24 09:27	
Barium	ug/L	<0.070	0.30	0.070	11/27/24 09:27	
Cadmium	ug/L	<0.030	0.080	0.030	11/27/24 09:27	
Chromium	ug/L	<0.54	2.0	0.54	11/27/24 09:27	
Cobalt	ug/L	<0.095	0.50	0.095	11/27/24 09:27	
Lead	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Lithium	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Molybdenum	ug/L	<0.13	0.50	0.13	11/27/24 09:27	
Selenium	ug/L	<0.074	0.50	0.074	11/27/24 09:27	
Thallium	ug/L	<0.026	0.10	0.026	11/27/24 09:27	

LABORATORY CONTROL SAMPLE: 5128272

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	104	104	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	105	105	85-115	
Cadmium	ug/L	100	102	102	85-115	
Chromium	ug/L	100	110	110	85-115	
Cobalt	ug/L	100	109	109	85-115	
Lead	ug/L	100	107	107	85-115	
Lithium	ug/L	100	106	106	85-115	
Molybdenum	ug/L	100	98.9	99	85-115	
Selenium	ug/L	100	106	106	85-115	
Thallium	ug/L	100	107	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	100	100	102	101	102	101	70-130	1	20	
Arsenic	ug/L	8.3	100	100	115	111	107	103	70-130	3	20	
Barium	ug/L	26.9	100	100	125	126	98	99	70-130	1	20	
Cadmium	ug/L	ND	100	100	99.6	98.9	100	99	70-130	1	20	
Chromium	ug/L	ND	100	100	109	108	107	106	70-130	1	20	
Cobalt	ug/L	ND	100	100	103	101	102	101	70-130	1	20	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	100	100	104	102	104	102	70-130	2	20	
Lithium	ug/L	47.0	100	100	159	147	112	100	70-130	8	20	
Molybdenum	ug/L	5.7	100	100	106	105	100	99	70-130	1	20	
Selenium	ug/L	ND	100	100	108	100	108	100	70-130	8	20	
Thallium	ug/L	ND	100	100	102	101	102	101	70-130	1	20	

MATRIX SPIKE SAMPLE: 5128275

Parameter	Units	10716376023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.44	100	100	100	70-130	
Arsenic	ug/L	1.0J	100	108	107	70-130	
Barium	ug/L	8.8	100	109	100	70-130	
Cadmium	ug/L	0.34J	100	97.3	97	70-130	
Chromium	ug/L	<2.7	100	109	106	70-130	
Cobalt	ug/L	7.2	100	110	103	70-130	
Lead	ug/L	<0.90	100	104	104	70-130	
Lithium	ug/L	182	100	274	92	70-130	
Molybdenum	ug/L	32.3	100	134	101	70-130	
Selenium	ug/L	0.80J	100	102	101	70-130	
Thallium	ug/L	<0.13	100	104	104	70-130	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981801
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159003, 10716159004

METHOD BLANK: 5129790 Matrix: Water
Associated Lab Samples: 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<0.13	0.50	0.13	12/02/24 22:12	
Cobalt, Dissolved	ug/L	<0.040	0.50	0.040	12/02/24 22:12	

LABORATORY CONTROL SAMPLE: 5129791

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	103	103	85-115	
Cobalt, Dissolved	ug/L	100	110	110	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5129792 5129793

Parameter	Units	10714271002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	<0.66	100	100	105	108	104	107	70-130	2	20	
Cobalt, Dissolved	ug/L	1.5J	100	100	107	110	105	108	70-130	3	20	

MATRIX SPIKE SAMPLE: 5129794

Parameter	Units	10714271012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	<0.66	100	108	108	70-130	
Cobalt, Dissolved	ug/L	13.4	100	118	105	70-130	

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
P8	Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10716159001	**CH-CCR-M44D-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159002	**CH-CCR-M54-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159003	**CH-CCR-W305-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159004	**CH-CCR-MW79A-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159003	**CH-CCR-W305-1024**	EPA 200.7	981791	EPA 200.7	982202
10716159004	**CH-CCR-MW79A-1024**	EPA 200.7	981791	EPA 200.7	982202
10716159001	**CH-CCR-M44D-1024**	EPA 200.8	981500	EPA 200.8	981756
10716159003	**CH-CCR-W305-1024**	EPA 200.8	981500	EPA 200.8	981756
10716159004	**CH-CCR-MW79A-1024**	EPA 200.8	981500	EPA 200.8	981756
10716159003	**CH-CCR-W305-1024**	EPA 200.8	981801	EPA 200.8	982182
10716159004	**CH-CCR-MW79A-1024**	EPA 200.8	981801	EPA 200.8	982182
10716159001	**CH-CCR-M44D-1024**	EPA 245.1	982136	EPA 245.1	982326
10716159003	**CH-CCR-W305-1024**	EPA 245.1	983405	EPA 245.1	983486
10716159004	**CH-CCR-MW79A-1024**	EPA 245.1	983405	EPA 245.1	983486

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Sub-Contract Chain of Custody

Batch Date/Time: 11/18/24 10:43
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2403708
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 11/29/24
ESC Purchase Order #: L1800186
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only	
CH-CCR-M44D-1024	WW	AZ	11/11/24 15:02	Metals	1. L1800186-01	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	001
CH-CCR-M54-1024	WW	AZ	11/11/24 16:37	Metals	2. L1800186-02	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	002
CH-CCR-W305-1024	WW	AZ	11/11/24 17:22	Metals	3. L1800186-03	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	003
CH-CCR-MW79A-1024	WW	AZ	11/11/24 18:10	Metals	4. L1800186-04	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	004

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ Date 11-18-24

Received by: M/Pace Date 11/19/24 9:00

Relinquished by: _____ Date _____

Received by: _____ Date _____

T4 1.8°C

WO#: 10716159

10716159

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTJL PROJECT #:

WO#: 10716159

PM: TKL Due Date: 12/05/24

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 425709333148 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO Seals Intact: ☑ YES ☐ NO Biological Tissue Frozen: ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other Temp Blank: ☑ YES ☐ NO Type of Ice: ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☑ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	Were All Container Temps taken: ☐ YES ☐ NO ☑ N/A
Correction Factor: 1.0 Cooler Temp Read w/Temp Blank: 1.8 °C Cooler Temp Corrected w/Temp Blank: 1.8 °C	Average Corrected Temp (no Temp Blank Only): ____ °C
NOTE: Temp should be above freezing to 6°C.	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A Water Sample/Other (describe): ____	Initials & Date of Person Examining Contents: 11/19/24 JT1
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: ____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☑	☐ ☐	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☑	☐	☐	10. Is sediment visible in the dissolved container: ☐ YES ☑ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		**11. If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.	☑ ☑ ☐	☐ ☐ ☐	☐ ☐ ☑	12. Sample #: 001 2/2, 002 1/1, 003-004 4/4 ☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate Positive for Residual Chlorine: ☐ YES ☐ NO pH Paper Lot # (Residual Chlorine / 0-6 Roll: 205224 / 0-6 Strip / 0-14 Strip) ☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers? Headspace in VOA Vials (greater than 6mm)?	☐ ☐	☐ ☐	☑ ☑	14. ☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present? Trip Blank Custody Seals Present?	☐ ☐	☐ ☐	☑ ☑	15. Pace Trip Blank Lot # (if purchased): ____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: ____ Date & Time: ____

Comments / Resolution: ____

Project Manager Review: [signature] Date: 11/20/24

NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: JT1 Line: 2

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800186	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	29-Nov	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	**SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Metals	Residual Chlorine (Y/N)	
1	CH-CCR-M44D-1024	WT				11-Nov	15:02		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
2	CH-CCR-M54-1024	WT				11-Nov	16:37		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
3	CH-CCR-W305-1024	WT				11-Nov	17:22		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
4	CH-CCR-MW79A-1024	WT				11-Nov	18:10		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	18-Nov	10:48				
Pace Analytical Batch: WG2403708							
Pace Analytical SDGs: L1800186							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	**DATE Signed:**				

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 11, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M440-1024	2.7 ± 0.3	0.8 ± 0.4	3.5 ± 0.5

Date of Analysis	11/28/2024 6:16	11/28/2024 6:16	11/28/2024 6:16

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 11, 2024 (Sample Date) 15:02 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000			
EPA 00-02		3 pCi/L	Gross Alpha	4002			
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	3.5 ± 0.5	
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	2.7 ± 0.3	
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	0.8 ± 0.4	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75810

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M440-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 11, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W305-1024	0.9 ± 0.2	< 0.8	0.9 ± 0.2

Date of Analysis	11/28/2024 10:18	11/28/2024 10:18	11/28/2024 10:18

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 11, 2024 (Sample Date) 17:22 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75811

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W305-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 11, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW79A-1024	1.1 ± 0.2	1.6 ± 0.4	2.7 ± 0.4

Date of Analysis	11/28/2024 14:20	11/28/2024 14:20	11/28/2024 14:20

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____

PWS Name: _____

November 11, 2024 (Sample Date) 18:10 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000			
EPA 00-02		3 pCi/L	Gross Alpha	4002			
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	2.7 ± 0.4	
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	1.1 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	1.6 ± 0.4	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75812

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW79A-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M67A-1024	1.1 ± 0.2	< 0.8	1.1 ± 0.2

Date of Analysis	11/28/2024 18:22	11/28/2024 18:22	11/28/2024 18:22

Robert L. Metzger, Ph.D., C.H.P. — 12/4/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 12:37 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000			
EPA 00-02		3 pCi/L	Gross Alpha	4002			
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	1.1 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	1.1 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	< 0.8	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75813

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M67A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M46A-1024	1.0 ± 0.2	< 0.8	1.0 ± 0.2
Date of Analysis	11/28/2024 22:24	11/28/2024 22:24	11/28/2024 22:24

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 15:13 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75814

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M46A-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW65A-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/29/2024 2:26	11/29/2024 2:26	11/29/2024 2:26

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 16:40 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75815

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW65A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST.• CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-HuntB-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/29/2024 6:28	11/29/2024 6:28	11/29/2024 6:28

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 17:27 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75816

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-HuntB-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FAP-1024	4.6 ± 1.1	< 3.6	4.6 ± 1.1
Date of Analysis	11/30/2024 15:33	11/30/2024 15:33	11/30/2024 15:33

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 11:48 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/30/2024	4.6 ± 1.1		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/30/2024	4.6 ± 1.1		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/30/2024	< 3.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75817

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FAP-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-EW01-1024	0.6 ± 0.2	< 0.8	0.6 ± 0.2

Date of Analysis	11/29/2024 10:29	11/29/2024 10:29	11/29/2024 10:29

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 12:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75818

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-EW01-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-EW02-1024	0.5 ± 0.2	< 0.8	0.5 ± 0.2
Date of Analysis	11/29/2024 14:31	11/29/2024 14:31	11/29/2024 14:31

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 12:42 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75819

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-EW02-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-EW03-1024	0.7 ± 0.2	< 0.8	0.7 ± 0.2
Date of Analysis	11/29/2024 18:33	11/29/2024 18:33	11/29/2024 18:33

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 13:17 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75820

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-EW03-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-GSX1R-1024	0.4 ± 0.2	< 0.8	0.4 ± 0.2

Date of Analysis	11/29/2024 22:35	11/29/2024 22:35	11/29/2024 22:35

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____

PWS Name: _____

November 13, 2024 (Sample Date) 13:52 (Sample Time) (24 hour clock)

Owner/Contact Person: _____

Owner/Contact Fax Number: _____

Owner/Contact Phone Number: _____

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

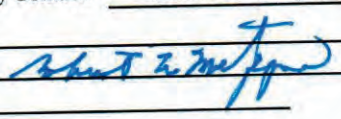
Specimen Number: RSE75821

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-GSX1R-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-EW04-1024	1.5 ± 0.2	1.4 ± 0.4	2.9 ± 0.4
Date of Analysis	11/30/2024 2:37	11/30/2024 2:37	11/30/2024 2:37

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 14:12 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/30/2024	2.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/30/2024	1.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/30/2024	1.4 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75822

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-EW04-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information

Name:	Cameron Corley/505-860-3619 Pam Norris/505-598-8781
Company	Arizona Public Service
Address	~~PO Box 355, MS 4915~~ ~~Fruitland, NM 87416~~
Phone	
Site	APS ~~Four Corners Power Plant~~ Cholla Power Plant

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225
Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-MW4D-1024	11-11-24	1502							X	X	X					75810	BH
~~CH-CCR-MW4-1024~~		~~1637~~							X	X	X						
CH-CCR-W30S-1024		1722							X	X	X					75811	
CH-CCR-MW79A-1024		1810							X	X	X					75812	
CH-CCR-MW67A-1024	11-12-24	1237							X	X	X					75813	
CH-CCR-MW6A-1024		1513							X	X	X					75814	
CH-CCR-MW65A-1024		1640							X	X	X					75815	
CH-CCR-HuntB-1024		1727							X	X	X					75816	
CH-CCR-FAP-1024	11-13-24	1148							X	X	X					75817	
CH-CCR-EW01-1024		1220							X	X	X					75818	

Sample Receipt

Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO#: ~~10063284~~
300592346

Instructions/Comments
Method HPGe

Relinquished By: Brad Hartman	Company: WSP	Date/time: 1604	Received By: Pat Flannery		Company: RSE	Date/time: 11-18-24 16:04
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:

11-18-24

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Client Information

Name:	Cameron Corley/505-860-3619 Pam Norris/505-598-8781
Company	Arizona Public Service
Address	~~PO Box 355, MS 4915~~ ~~Fruitland, NM 87416~~
Phone	
Site	APS ~~Four Corners Power Plant~~ Cholla Power Plant

Radiation Safety Engineering, Inc.

3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-EW02-1024	11-13-24	1242							X	X	X						75819
CH-CCR-EW03-1024		1317							X	X	X						75820
CH-CCR-GSX1R-1024		1352							X	X	X						75821
CH-CCR-EW04-1024	↓	1412							X	X	X						75822

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:

PO#: ~~100022094~~

3005923 46

Instructions/Comments

Method HPGe

Relinquished By: Brad Hartman	Company: USP	Date/time: 11-15-24 1604	Received By: Rt Flannery		Company: RSE	Date/time: 11-18-24 16:04
Relinquished By: BSH	Company:	Date/time:	Received By:		Company:	Date/time:
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 17, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W317-1024	< 0.4	1.4 ± 0.4	1.4 ± 0.4
Date of Analysis	1/15/2024 17:21	1/15/2024 17:21	1/15/2024 17:21

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 17, 2024 (Sample Date) 15:54 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	1/15/2024	1.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	1/15/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	1/15/2024	1.4 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

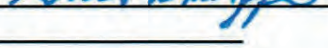
Specimen Number: RSE75700

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W317-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 17, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD04-1024	1.0 ± 0.2	< 0.8	1.0 ± 0.2

Date of Analysis	11/15/2024 21:23	11/15/2024 21:23	11/15/2024 21:23

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 17, 2024 (Sample Date) 16:55 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75701

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD04-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD05-1024	0.9 ± 0.2	1.0 ± 0.4	1.9 ± 0.4

Date of Analysis	11/16/2024	11/16/2024	11/16/2024
	1:25	1:25	1:25

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 16:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	1.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	1.0 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75702

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD05-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 22, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD06-1024	0.9 ± 0.2	1.1 ± 0.4	2.0 ± 0.4

Date of Analysis	11/16/2024 5:27	11/16/2024 5:27	11/16/2024 5:27

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 22, 2024 (Sample Date) 16:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	2.0 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	1.1 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75703

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD06-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M63A-1024	0.5 ± 0.2	< 0.8	0.5 ± 0.2

Date of Analysis	11/16/2024	11/16/2024	11/16/2024
	9:29	9:29	9:29

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 10:53 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75704

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M63A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 22, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M55A-1024	0.4 ± 0.2	2.1 ± 0.4	2.5 ± 0.4

Date of Analysis	11/16/2024 13:31	11/16/2024 13:31	11/16/2024 13:31

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 22, 2024 (Sample Date) 12:09 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	2.5 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	2.1 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75705

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M55A-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 22, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W308-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/16/2024 17:33	11/16/2024 17:33	11/16/2024 17:33

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 22, 2024 (Sample Date) 15:00 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75706

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W308-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 22, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W307R-1024	< 0.4	< 0.8	< 0.8

Date of Analysis	11/16/2024 21:34	11/16/2024 21:34	11/16/2024 21:34

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 22, 2024 (Sample Date) 16:39 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75707

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W307R-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W304-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/17/2024 1:36	11/17/2024 1:36	11/17/2024 1:36

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 11:09 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75708

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W304-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W302-1024	0.6 ± 0.2	< 0.8	0.6 ± 0.2

Date of Analysis	11/17/2024	11/17/2024	11/17/2024
	5:38	5:38	5:38

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 13:13 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75709

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W302-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW78A-1024	0.4 ± 0.2	1.3 ± 0.4	1.7 ± 0.4

Date of Analysis	11/17/2024	11/17/2024	11/17/2024
	9:40	9:40	9:40

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 15:41 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	1.7 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	1.3 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75710

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW78A-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W301-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/17/2024 13:42	11/17/2024 13:42	11/17/2024 13:42

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 10:45 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75711

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W301-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W303-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/17/2024 17:44	11/17/2024 17:44	11/17/2024 17:44

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 13:10 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75712

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W303-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M53A-1024	0.7 ± 0.2	< 0.8	0.7 ± 0.2

Date of Analysis	11/17/2024 21:46	11/17/2024 21:46	11/17/2024 21:46

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 15:30 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75713

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M53A-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W306-1024	0.8 ± 0.2	< 0.8	0.8 ± 0.2

Date of Analysis	11/18/2024	11/18/2024	11/18/2024
	1:48	1:48	1:48

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 17:04 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/18/2024	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/18/2024	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/18/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75714

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W306-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 25, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW69A-1024	0.5 ± 0.2	< 0.8	0.5 ± 0.2

Date of Analysis	11/18/2024	11/18/2024	11/18/2024
	5:50	5:50	5:50

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 25, 2024 (Sample Date) 10:20 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/18/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/18/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/18/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

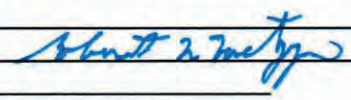
Specimen Number: RSE75715

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW69A-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 28, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M52A-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/18/2024 9:52	11/18/2024 9:52	11/18/2024 9:52

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 28, 2024 (Sample Date) 15:02 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/18/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/18/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/18/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75716

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M52A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 28, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW70M-1024	< 0.4	< 0.8	< 0.8

Date of Analysis	11/18/2024 13:54	11/18/2024 13:54	11/18/2024 13:54

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 28, 2024 (Sample Date) 16:31 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/18/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/18/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/18/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75717

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW70M-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 29, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-BudHunt-1024	< 0.5	< 0.7	< 0.7

Date of Analysis	11/14/2024 7:07	11/14/2024 7:07	11/14/2024 7:07

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 29, 2024 (Sample Date) 10:17 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75718

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-BudHunt-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 29, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW72M-1024	6.3 ± 0.4	6.5 ± 0.5	12.8 ± 0.6

Date of Analysis	11/14/2024 11:07	11/14/2024 11:07	11/14/2024 11:07

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 29, 2024 (Sample Date) 11:42 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	12.8 ± 0.6		X
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	6.3 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	6.5 ± 0.5		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75719

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW72M-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 29, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW71A-1024	< 0.5	< 0.7	< 0.7
Date of Analysis	11/14/2024 15:08	11/14/2024 15:08	11/14/2024 15:08

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 29, 2024 (Sample Date) 15:02 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75720

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW71A-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 29, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW73A-1024	0.6 ± 0.2	< 0.7	0.6 ± 0.2
Date of Analysis	11/14/2024 19:09	11/14/2024 19:09	11/14/2024 19:09

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 29, 2024 (Sample Date) 16:12 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75721

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW73A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 30, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W314-1024	< 0.5	< 0.7	< 0.7
Date of Analysis	11/14/2024 23:09	11/14/2024 23:09	11/14/2024 23:09

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 30, 2024 (Sample Date) 10:03 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75722

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W314-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 30, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW74M-1024	0.6 ± 0.2	< 0.7	0.6 ± 0.2

Date of Analysis	11/15/2024	11/15/2024	11/15/2024
	3:10	3:10	3:10

11/19/2024
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 30, 2024 (Sample Date) 12:27 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75723

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW74M-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 30, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M64A-1024	< 0.5	0.7 ± 0.3	0.7 ± 0.3

Date of Analysis	11/15/2024	11/15/2024	11/15/2024
	7:11	7:11	7:11

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 30, 2024 (Sample Date) 15:48 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	0.7 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	0.7 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75724

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M64A-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 30, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW77A-1024	< 0.5	< 0.7	< 0.7

Date of Analysis	11/15/2024 11:11	11/15/2024 11:11	11/15/2024 11:11

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 30, 2024 (Sample Date) 17:05 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75725

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW77A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 31, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M43A-1024	< 0.4	1.6 ± 0.3	1.6 ± 0.3

Date of Analysis	11/15/2024 15:12	11/15/2024 15:12	11/15/2024 15:12

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 31, 2024 (Sample Date) 10:23 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	1.6 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	1.6 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75726

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M43A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 31, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W126R-1024	0.9 ± 0.2	< 0.7	0.9 ± 0.2

Date of Analysis	11/15/2024 19:13	11/15/2024 19:13	11/15/2024 19:13

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 31, 2024 (Sample Date) 14:03 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

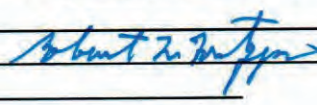
Specimen Number: RSE75727

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W126R-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information	
Name:	Cody Miller/480-209-6529
Company	Arizona Public Service
Address	4801 Cholla Lake Rd, Joseph City, AZ 86032
Phone	928-587-0319
Site	APS Cholla Power Plant (BAP)

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-W317-1024	10-17-24	1554	GW						X	X	X						75700
CH-CCR-FD04-1024	10-17-24	1655	GW						X	X	X						75701
CH-CCR-FD05-1024	10-21-24	1620	GW						X	X	X						75702
CH-CCR-FD06-1024	10-22-24	1620	GW						X	X	X						75703
CH-CCR-M63A-1024	10-21-24	1053	GW						X	X	X						75704
CH-CCR-M55A-1024	10-22-24	1209	GW						X	X	X						75705
CH-CCR-W308-1024	10-22-24	1500	GW						X	X	X						75706
CH-CCR-W307R-1024	10-22-24	1639	GW						X	X	X						75707
CH-CCR-W304-1024	10-23-24	1109	GW						X	X	X						75708
CH-CCR-W302-1024	10-23-24	1313	GW						X	X	X						75709

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300592346

Instructions/Comments
Method HPGe

Relinguished By: [illegible]	Company: WSP	Date/time: 1612 1 Nov 24	Received By: [illegible]		Company: RSE	Date/time: 11.1.24 4:12
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Client Information	
Name:	Cody Miller/480-209-6529
Company	Arizona Public Service
Address	4801 Cholla Lake Rd, Joseph City, AZ 86032
Phone	928-587-0319
Site	APS Cholla Power Plant (BAP)

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-MW76A-1024	10-23-24	1541	GW						X	X	X						75710
CH-CCR-W301-1024	10-24-24	1045	GW						X	X	X						75711
CH-CCR-W303-1024	10-24-24	1310	GW						X	X	X						75712
CH-CCR-MW53A-1024	10-24-24	1530	GW						X	X	X						75713
CH-CCR-W306-1024	10-24-24	1704	GW						X	X	X						75714
CH-CCR-MW69A-1024	10-25-24	1020	GW						X	X	X						75715
CH-CCR-MW52A-1024	10-28-24	1502	GW						X	X	X						75716
CH-CCR-MW70M-1024	10-28-24	1631	GW						X	X	X						75717
CH-CCR-BudHunt-1024	10-29-24	1017	GW						X	X	X						75718
CH-CCR-MW72M-1024	10-29-24	1142	GW						X	X	X						75719

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300592346

Instructions/Comments
Method HPGe

Relinguished By: BCLE	Company: WSP	Date/time: 1612 1Nov24	Received By: Pat Flannery		Company: RSE	Date/time: 11.1.24	4:12
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:	
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:	

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Client Information	
Name:	**Cody Miller/480-209-6529**
Company	**Arizona Public Service**
Address	**4801 Cholla Lake Rd, Joseph City, AZ 86032**
Phone	**928-587-0319**
Site	**APS Cholla Power Plant (BAP)**

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-MW71A-1024	10-29-24	1502	GW						X	X	X						75720
CH-CCR-MW73A-1024	10-29-24	1612	GW						X	X	X						75721
CH-CCR-W314-1024	10-30-24	1003	GW						X	X	X						75722
CH-CCR-MW74M-1024	10-30-24	1227	GW						X	X	X						75723
CH-CCR-M64A-1024	10-30-24	1548	GW						X	X	X						75724
CH-CCR-MW77A-1024	10-30-24	1705	GW						X	X	X						75725
CH-CCR-M43A-1024	10-31-24	1023	GW						X	X	X						75726
CH-CCR-W26R-1024	10-31-24	1403	GW						X	X	X						75727
			GW						X	X	X						
			GW						X	X	X						

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300592346

Instructions/Comments
Method HPGe

Relinquished By: [signature]	Company: WSP	Date/time: 1612	Received By: [signature]		Company: RSE	Date/time: 11/1/24 4:12
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:

INW24

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

ANALYTICAL REPORT

November 19, 2024

Revised Report

WSP (Formely Wood E&I)-Phoenix, AZ

Sample Delivery Group:	L1792413
Samples Received:	10/24/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

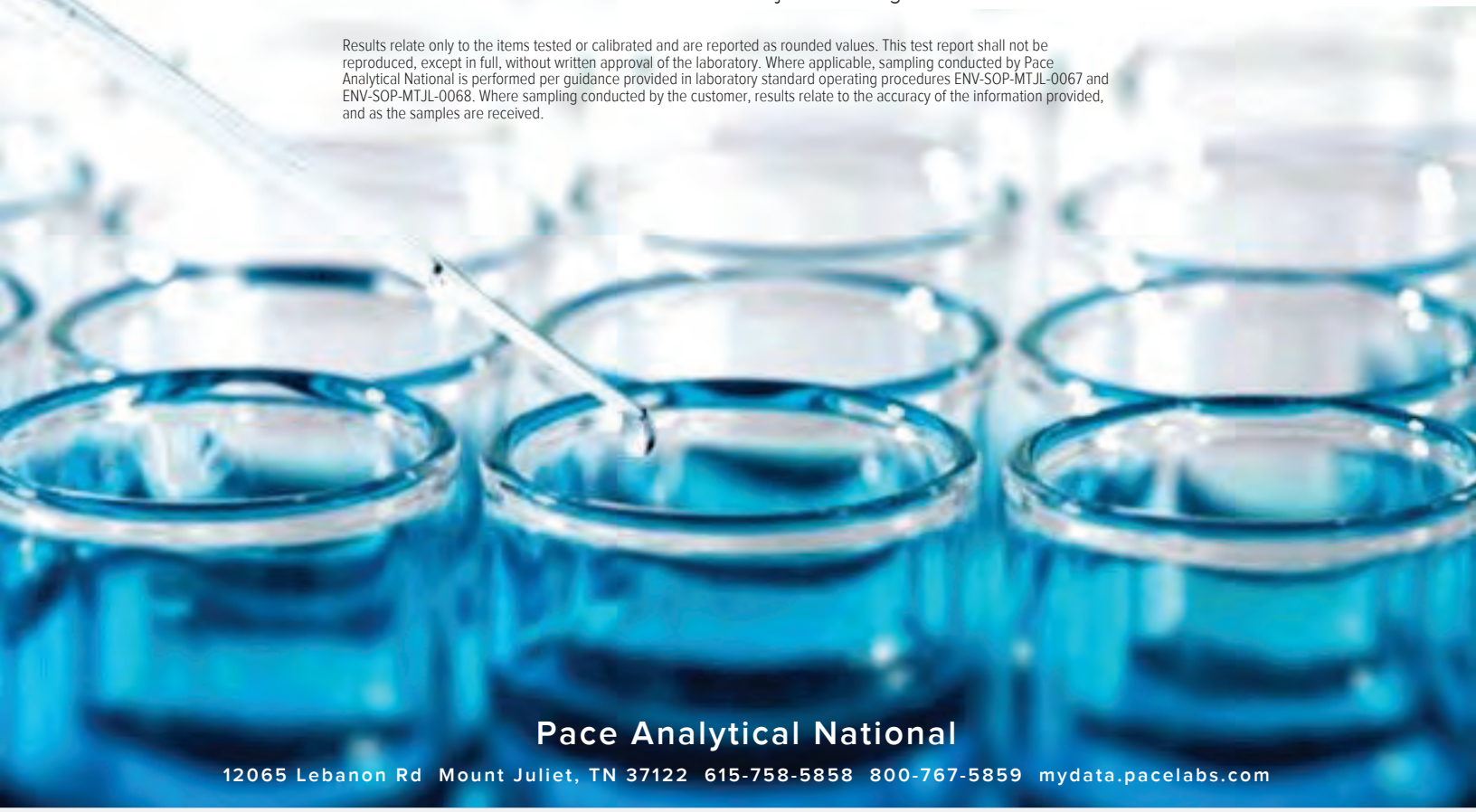
Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-CCR-W317-1024 L1792413-01 GW

Collected by: Brad Hartman
Collected date/time: 10/17/24 15:54
Received date/time: 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2389355	1	10/25/24 10:35	10/25/24 16:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2389615	1	10/25/24 21:30	10/25/24 21:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2389049	5	10/28/24 22:27	10/28/24 22:27	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2389049	50	10/29/24 00:20	10/29/24 00:20	ZSA	Mt. Juliet, TN
Mercury by Method 7470A	WG2389339	1	10/29/24 11:24	10/30/24 14:22	AKB	Mt. Juliet, TN
Subcontracted Analyses	WG2393103	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-FD04-1024 L1792413-02 GW

Collected by: Brad Hartman
Collected date/time: 10/17/24 16:55
Received date/time: 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2389355	1	10/25/24 10:35	10/25/24 16:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390248	1	10/28/24 10:10	10/28/24 10:10	BRT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2389275	1	10/27/24 18:54	10/27/24 18:54	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2389275	10	10/27/24 19:11	10/27/24 19:11	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393103	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Report Revision History

Level II Report - Version 1: 11/01/24 08:16

Project Narrative

Metals
L1792413 -01, -02 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	3670000	H3	100000	1	10/25/2024 16:48	WG2389355

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.98	H3	1	10/25/2024 21:30	WG2389615

Sample Narrative:

L1792413-01 WG2389615: 7.98 at 18.3C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1630000		27400	50000	50	10/29/2024 00:20	WG2389049
Fluoride	U	R8	380	750	5	10/28/2024 22:27	WG2389049
Sulfate	688000	M3	3180	25000	5	10/28/2024 22:27	WG2389049

Sample Narrative:

L1792413-01 WG2389049: Dilution due to matrix impact on instrumentation at lower dilution

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.0700	0.200	1	10/30/2024 14:22	WG2389339

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	3130000	H3	100000	1	10/25/2024 16:48	WG2389355

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.63	H3	1	10/28/2024 10:10	WG2390248

Sample Narrative:

L1792413-02 WG2390248: 7.63 at 19.4C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1630000		5470	10000	10	10/27/2024 19:11	WG2389275
Fluoride	393		76.1	150	1	10/27/2024 18:54	WG2389275
Sulfate	652000		6370	50000	10	10/27/2024 19:11	WG2389275

Method Blank (MB)

(MB) R4138711-1 10/25/24 16:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		10000	10000

L1792396-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792396-01 10/25/24 16:48 • (DUP) R4138711-3 10/25/24 16:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	446000	483000	1	7.97		10

L1792473-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1792473-07 10/25/24 16:48 • (DUP) R4138711-4 10/25/24 16:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1380000	1520000	1	9.33		10

Laboratory Control Sample (LCS)

(LCS) R4138711-2 10/25/24 16:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8060000	91.6	85.0-115	

L1792168-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1792168-14 10/25/24 21:30 • (DUP) R4138072-2 10/25/24 21:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.80	7.82	1	0.256		1

Sample Narrative:

OS: 7.8 at 19C

DUP: 7.82 at 18.9C

L1792567-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792567-01 10/25/24 21:30 • (DUP) R4138072-3 10/25/24 21:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.71	7.75	1	0.517		1

Sample Narrative:

OS: 7.71 at 19.2C

DUP: 7.75 at 19.4C

Laboratory Control Sample (LCS)

(LCS) R4138072-1 10/25/24 21:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 19.8C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

L1792413-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1792413-02 10/28/24 10:10 • (DUP) R4138397-2 10/28/24 10:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.63	7.67	1	0.523		1

Sample Narrative:

OS: 7.63 at 19.4C

DUP: 7.67 at 19.5C

L1793198-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1793198-09 10/28/24 10:10 • (DUP) R4138397-3 10/28/24 10:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.04	7.09	1	0.708		1

Sample Narrative:

OS: 7.04 at 19.8C

DUP: 7.09 at 19.9C

Laboratory Control Sample (LCS)

(LCS) R4138397-1 10/28/24 10:10

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.97	99.7	99.0-101	

Sample Narrative:

LCS: 9.97 at 19.3C

Method Blank (MB)

(MB) R4139413-1 10/28/24 15:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1792314-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1792314-21 10/28/24 15:35 • (DUP) R4139413-3 10/28/24 15:52

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	3170	3030	1	4.58		15
Sulfate	U	U	1	0.000		15

L1792413-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792413-01 10/28/24 22:27 • (DUP) R4139413-6 10/28/24 23:30

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	U	408	5	200	E4 R8	15
Sulfate	688000	684000	5	0.602		15

Sample Narrative:

OS: Dilution due to matrix impact on instrumentation at lower dilution

L1792413-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792413-01 10/29/24 00:20 • (DUP) R4139413-9 10/29/24 00:37

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1630000	1600000	50	1.36		15

Laboratory Control Sample (LCS)

(LCS) R4139413-2 10/28/24 15:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39500	98.7	80.0-120	
Fluoride	8000	7740	96.8	80.0-120	
Sulfate	40000	40500	101	80.0-120	

L1792314-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792314-21 10/28/24 15:35 • (MS) R4139413-4 10/28/24 16:09 • (MSD) R4139413-5 10/28/24 16:26

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	632000	537000	539000	0.000	0.000	1	80.0-120	E1 M3	E1 M3	0.497	15
Fluoride	8000	3170	9800	9520	82.8	79.4	1	80.0-120		M2	2.83	15
Sulfate	40000	U	41800	40600	105	101	1	80.0-120			3.15	15

L1792413-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792413-01 10/28/24 22:27 • (MS) R4139413-7 10/28/24 23:46 • (MSD) R4139413-8 10/29/24 00:03

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	1590000	1300000	1320000	0.000	0.000	5	80.0-120	E1 M3	E1 M3	1.17	15
Fluoride	8000	U	8300	8240	104	103	5	80.0-120			0.714	15
Sulfate	40000	688000	568000	575000	0.000	0.000	5	80.0-120	M3	M3	1.15	15

Sample Narrative:

OS: Dilution due to matrix impact on instrumentation at lower dilution

Method Blank (MB)

(MB) R4138549-1 10/27/24 11:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1792402-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792402-01 10/27/24 13:23 • (DUP) R4138549-3 10/27/24 13:41

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	U	U	50	0.000		15
Sulfate	1630000	1640000	50	0.580		15

L1792408-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1792408-07 10/27/24 15:25 • (DUP) R4138549-6 10/27/24 15:43

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1700	1250	10	30.6	E4 R8	15
Sulfate	584000	579000	10	0.779		15

Laboratory Control Sample (LCS)

(LCS) R4138549-2 10/27/24 11:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40100	100	80.0-120	
Fluoride	8000	8360	104	80.0-120	
Sulfate	40000	40800	102	80.0-120	

L1792402-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792402-01 10/27/24 13:23 • (MS) R4138549-4 10/27/24 13:58 • (MSD) R4138549-5 10/27/24 14:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	22700000	18000000	18000000	0.000	0.000	50	80.0-120	E1 M3	E1 M3	0.203	15
Fluoride	8000	U	13300	9840	166	123	50	80.0-120	M1	M1 R5	29.5	15
Sulfate	40000	1630000	1330000	1330000	0.000	0.000	50	80.0-120	M3	M3	0.603	15

L1792408-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792408-07 10/27/24 15:25 • (MS) R4138549-7 10/27/24 16:00 • (MSD) R4138549-8 10/27/24 16:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	4060000	3170000	3260000	0.000	0.000	10	80.0-120	E1 M3	E1 M3	2.67	15
Fluoride	8000	1700	9250	8650	94.4	86.8	10	80.0-120			6.77	15
Sulfate	40000	584000	493000	503000	0.000	0.000	10	80.0-120	M3	M3	2.04	15

Method Blank (MB)

(MB) R4139854-1 10/30/24 14:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Mercury	U		0.0700	0.200

Laboratory Control Sample (LCS)

(LCS) R4139854-2 10/30/24 14:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Mercury	3.00	2.85	95.1	80.0-120	

L1792413-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792413-01 10/30/24 14:22 • (MS) R4139854-4 10/30/24 14:27 • (MSD) R4139854-5 10/30/24 14:30

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury	3.00	U	2.86	2.90	95.2	96.5	1	75.0-125			1.35	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N X Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 Diss Metals FF 250mlHDPE-HNO3	200.7 Total Metals 250mlHDPE-HNO3	200.8 Diss Metals FF 250mlHDPE-HNO3	200.8 Total Metals 250mlHDPE-HNO3	ALKCA, ALKOH 125mlHDPE-NoPres	Chloride 250mlHDPE-NoPres	DOC 250mlAmb-No Pres	Fluoride 250mlHDPE-NoPres	Hg 250mlHDPE-HNO3	NH3 250mlHDPENaThioH2SO4	Remarks	Sample # (lab only)
CH-CCR-W317-1024		GW		10-17-24	1554	12		X		X		X		X	X		MS/MSD	-01
CH-CCR-FD04-1024		GW		10-17-24	1655	4		X		X		X		X	X			-02
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 179243
A181

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:
Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, ~~Fe, Mn, K, Mg, Na. Dissolved Fe, Mn~~
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl ~~Dissolved As, Co~~, Total Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 4102 9177 5688

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR
	10-22-24	1035		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.2 °C Bottles Received: 3.3 3.5
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10-24-24 Time: 9:00
				Hold: Condition NCF / OK

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Sulfate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres					Remarks	Sample # (lab only)
CH-CCR-W317-1024		WW		10-17-24	1554	12		X	X		X					MS/MSD	-01
CH-CCR-FD04-1024		WW		10-17-24	1655	4		X	X		X						-02
		WW															
		WW															
		WW															
		WW															
		WW															
		WW															
		WW															
		WW															

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 179213

Table #

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, ~~Fe, Mn~~, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl ~~Dissolved As, Co~~ Total Co

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 4102 9177 5698

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR
	10-22-24	1035		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 3.2 4.3=3.5 — If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10-25-24 Time: 9:00 — Hold: — Condition: NCF / (OK)

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 13, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1792413 WG2393103
Pace Project No.: 10714206

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1792413 WG2393103
Pace Project No.: 10714206

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1792413 WG2393103
Pace Project No.: 10714206

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10714206001	**CH-CCR-W317-1024**	Water	10/17/24 15:54	11/01/24 08:50
10714206002	**CH-CCR-FD04-1024**	Water	10/17/24 16:55	11/01/24 08:50

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Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1792413 WG2393103
Pace Project No.: 10714206

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10714206001	**CH-CCR-W317-1024**	EPA 200.7	SMB	3	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10714206002	**CH-CCR-FD04-1024**	EPA 200.7	SMB	3	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1792413 WG2393103
Pace Project No.: 10714206

Sample: CH-CCR-W317-1024 **Lab ID: 10714206001** Collected: 10/17/24 15:54 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis							
Beryllium	ND	ug/L	5.0	1	11/04/24 13:20	11/12/24 12:01	7440-41-7	
Boron	**199**	ug/L	150	1	11/04/24 13:20	11/12/24 12:01	7440-42-8	
Calcium	**322000**	ug/L	500	1	11/04/24 13:20	11/12/24 12:01	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis							
Antimony	ND	ug/L	2.5	5	11/11/24 09:57	11/12/24 14:36	7440-36-0	D3
Arsenic	**4.4**	ug/L	2.5	5	11/11/24 09:57	11/12/24 14:36	7440-38-2	
Barium	**32.4**	ug/L	1.5	5	11/11/24 09:57	11/12/24 14:36	7440-39-3	
Cadmium	ND	ug/L	0.40	5	11/11/24 09:57	11/12/24 14:36	7440-43-9	D3
Chromium	ND	ug/L	10.0	5	11/11/24 09:57	11/12/24 14:36	7440-47-3	D3
Cobalt	ND	ug/L	2.5	5	11/11/24 09:57	11/12/24 14:36	7440-48-4	D3
Lead	ND	ug/L	2.5	5	11/11/24 09:57	11/12/24 14:36	7439-92-1	D3
Lithium	**52.1**	ug/L	2.5	5	11/11/24 09:57	11/12/24 14:36	7439-93-2	
Molybdenum	ND	ug/L	2.5	5	11/11/24 09:57	11/12/24 14:36	7439-98-7	D3
Selenium	ND	ug/L	2.5	5	11/11/24 09:57	11/12/24 14:36	7782-49-2	D3
Thallium	ND	ug/L	0.50	5	11/11/24 09:57	11/12/24 14:36	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis							
Mercury	ND	ug/L	0.20	1	11/06/24 13:24	11/08/24 10:55	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1792413 WG2393103
Pace Project No.: 10714206

Sample: CH-CCR-FD04-1024 **Lab ID: 10714206002** Collected: 10/17/24 16:55 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis							
Beryllium	ND	ug/L	5.0	1	11/04/24 13:20	11/12/24 12:10	7440-41-7	
Boron	**214**	ug/L	150	1	11/04/24 13:20	11/12/24 14:01	7440-42-8	
Calcium	**304000**	ug/L	500	1	11/04/24 13:20	11/12/24 12:10	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis							
Antimony	ND	ug/L	2.5	5	11/11/24 09:57	11/12/24 09:53	7440-36-0	D3
Arsenic	**4.2**	ug/L	2.5	5	11/11/24 09:57	11/12/24 09:53	7440-38-2	
Barium	**34.4**	ug/L	1.5	5	11/11/24 09:57	11/12/24 09:53	7440-39-3	
Cadmium	ND	ug/L	0.40	5	11/11/24 09:57	11/12/24 09:53	7440-43-9	D3
Chromium	ND	ug/L	10.0	5	11/11/24 09:57	11/12/24 09:53	7440-47-3	D3
Cobalt	ND	ug/L	2.5	5	11/11/24 09:57	11/12/24 09:53	7440-48-4	D3
Lead	ND	ug/L	2.5	5	11/11/24 09:57	11/12/24 09:53	7439-92-1	D3
Lithium	**59.9**	ug/L	2.5	5	11/11/24 09:57	11/12/24 09:53	7439-93-2	
Molybdenum	**20.9**	ug/L	2.5	5	11/11/24 09:57	11/12/24 09:53	7439-98-7	
Selenium	ND	ug/L	2.5	5	11/11/24 09:57	11/12/24 09:53	7782-49-2	D3
Thallium	ND	ug/L	0.50	5	11/11/24 09:57	11/12/24 09:53	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis							
Mercury	ND	ug/L	0.20	1	11/06/24 13:24	11/08/24 10:59	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1792413 WG2393103
Pace Project No.: 10714206

QC Batch: 978238
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714206001, 10714206002

METHOD BLANK: 5112222 Matrix: Water
Associated Lab Samples: 10714206001, 10714206002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	11/08/24 10:46	

LABORATORY CONTROL SAMPLE: 5112223

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112224 5112225

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.1	104	102	70-130	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112226 5112227

Parameter	Units	10714206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.1	99	102	70-130	4	20	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1792413 WG2393103
Pace Project No.: 10714206

QC Batch: 977510
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714206001, 10714206002

METHOD BLANK: 5109199 Matrix: Water
Associated Lab Samples: 10714206001, 10714206002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Beryllium	ug/L	ND	5.0	11/12/24 11:41	
Boron	ug/L	ND	150	11/12/24 11:41	
Calcium	ug/L	ND	500	11/12/24 11:41	

LABORATORY CONTROL SAMPLE: 5109200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1010	101	85-115	
Boron	ug/L	1000	1020	102	85-115	
Calcium	ug/L	20000	19400	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109201 5109202

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	ND	1000	1000	1090	1060	109	106	70-130	3	20	
Boron	ug/L	215	1000	1000	1330	1300	111	109	70-130	2	20	
Calcium	ug/L	151000	20000	20000	167000	167000	79	79	70-130	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109203 5109204

Parameter	Units	10714206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	ND	1000	1000	1090	1050	109	105	70-130	4	20	
Boron	ug/L	199	1000	1000	1390	1320	119	112	70-130	5	20	
Calcium	ug/L	322000	20000	20000	339000	339000	84	86	70-130	0	20	

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REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1792413 WG2393103
Pace Project No.: 10714206

QC Batch: 978930
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714206001, 10714206002

METHOD BLANK: 5115658 Matrix: Water
Associated Lab Samples: 10714206001, 10714206002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	0.50	11/12/24 12:12	
Arsenic	ug/L	ND	0.50	11/12/24 12:12	
Barium	ug/L	ND	0.30	11/12/24 12:12	
Cadmium	ug/L	ND	0.080	11/12/24 12:12	
Chromium	ug/L	ND	2.0	11/12/24 12:12	
Cobalt	ug/L	ND	0.50	11/12/24 12:12	
Lead	ug/L	ND	0.50	11/12/24 12:12	
Lithium	ug/L	ND	0.50	11/12/24 12:12	
Molybdenum	ug/L	ND	0.50	11/12/24 12:12	
Selenium	ug/L	ND	0.50	11/12/24 12:12	
Thallium	ug/L	ND	0.10	11/12/24 12:12	

LABORATORY CONTROL SAMPLE: 5115659

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	98.9	99	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	103	103	85-115	
Cadmium	ug/L	100	99.1	99	85-115	
Chromium	ug/L	100	108	108	85-115	
Cobalt	ug/L	100	111	111	85-115	
Lead	ug/L	100	106	106	85-115	
Lithium	ug/L	100	103	103	85-115	
Molybdenum	ug/L	100	98.6	99	85-115	
Selenium	ug/L	100	106	106	85-115	
Thallium	ug/L	100	102	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115660 5115661

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	100	100	98.0	100	98	100	70-130	2	20	
Arsenic	ug/L	2.7	100	100	108	109	106	106	70-130	0	20	
Barium	ug/L	27.1	100	100	127	128	99	101	70-130	1	20	
Cadmium	ug/L	ND	100	100	97.1	99.4	97	99	70-130	2	20	
Chromium	ug/L	ND	100	100	103	105	102	104	70-130	2	20	
Cobalt	ug/L	ND	100	100	107	108	106	107	70-130	1	20	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1792413 WG2393103
Pace Project No.: 10714206

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115660 5115661

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	100	100	102	102	101	102	70-130	1	20	
Lithium	ug/L	81.1	100	100	183	185	101	104	70-130	1	20	
Molybdenum	ug/L	3.4	100	100	102	103	99	100	70-130	1	20	
Selenium	ug/L	ND	100	100	106	105	106	105	70-130	0	20	
Thallium	ug/L	ND	100	100	101	102	101	102	70-130	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115662 5115663

Parameter	Units	10714206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	100	100	98.1	97.0	98	97	70-130	1	20	
Arsenic	ug/L	4.4	100	100	109	108	105	103	70-130	1	20	
Barium	ug/L	32.4	100	100	134	132	102	100	70-130	1	20	
Cadmium	ug/L	ND	100	100	92.8	92.3	93	92	70-130	1	20	
Chromium	ug/L	ND	100	100	103	102	101	100	70-130	1	20	
Cobalt	ug/L	ND	100	100	103	102	103	102	70-130	1	20	
Lead	ug/L	ND	100	100	101	100	101	100	70-130	0	20	
Lithium	ug/L	52.1	100	100	152	151	100	98	70-130	1	20	
Molybdenum	ug/L	ND	100	100	98.5	98.3	97	97	70-130	0	20	
Selenium	ug/L	ND	100	100	99.6	99.5	99	99	70-130	0	20	
Thallium	ug/L	ND	100	100	100	99.9	100	100	70-130	0	20	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1792413 WG2393103
Pace Project No.: 10714206

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1792413 WG2393103
Pace Project No.: 10714206

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10714206001	**CH-CCR-W317-1024**	EPA 200.7	977510	EPA 200.7	977832
10714206002	**CH-CCR-FD04-1024**	EPA 200.7	977510	EPA 200.7	977832
10714206001	**CH-CCR-W317-1024**	EPA 200.8	978930	EPA 200.8	979147
10714206002	**CH-CCR-FD04-1024**	EPA 200.8	978930	EPA 200.8	979147
10714206001	**CH-CCR-W317-1024**	EPA 245.1	978238	EPA 245.1	978389
10714206002	**CH-CCR-FD04-1024**	EPA 245.1	978238	EPA 245.1	978389

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Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. # P104414US024

Collected by (signature):

Immediately Packed on Ice N X Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 Diss Metals FF 250mlHDPE-HNO3	200.7 Total Metals 250mlHDPE-HNO3	200.8 Diss Metals FF 250mlHDPE-HNO3	200.8 Total Metals 250mlHDPE-HNO3	ALKCA, ALKOH 125mlHDPE-NoPres	Chloride 250mlHDPE-NoPres	DOC 250mlAmb-No Pres	Fluoride 250mlHDPE-NoPres	Hg 250mlHDPE-HNO3	NH3 250mlHDPENaThioH2SO4	Remarks	Sample # (lab only)
CH-CCR-W317-1024		GW		10-17-24	1554	12		X		X		X		X	X		MS/MSD	-01
CH-CCR-FD04-1024		GW		10-17-24	1655	4		X		X		X		X	X			-02
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 129243
A181

Acctnum: AMECTAZ
Template: T261974
Prelogin: P1107670
PM: 288 - Daphne Richards
PB:

Shipped Via: FedEX Ground

WO# : 10714206
10714206

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na. Dissolved Fe, Mn~~
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl ~~Dissolved As, Co~~, Total Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS X FedEx __ Courier _____

Tracking # 4102 9177 5688

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	10-22-24	1035	11/1/24 8:30	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 3.2 4.3 3.5
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10-24-24 Time: 9:00

If preservation required by Login: Date/Time

Hold: Condition NCF / OK

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Sulfate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres	Remarks	Sample # (lab only)
CH-CCR-W317-1024		WW		10-17-24	1554	12		X	X		X	MS/MSD	-01
CH-CCR-FD04-1024		WW		10-17-24	1655	4		X	X		X		-02
		WW											
		WW											
		WW											
		WW											
		WW											
		WW											
		WW											
		WW											

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 179243

Table #

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn~~, K, Mg, Na. ~~Dissolved Fe, Mn~~
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl ~~Dissolved As, Co~~ Total Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 4102 9177 5188

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR
	10-22-24	1035		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 3.2 4.3 3.5
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10-25-24 Time: 9:00

If preservation required by Login: Date/Time

Hold: Condition NCF / (OK)

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTVL PROJECT #: **WO#: 10714206**

PM: TKL Due Date: 11/15/24

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 4041 0492 0891 ☐ See Exceptions form ENV-FRM-MIN4-0142

4041 0492 0880, 4041 0492 0870

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO Seals Intact: ☑ YES ☐ NO Biological Tissue Frozen: ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☑ None ☐ Other Temp Blank: ☑ YES ☐ NO Type of Ice: ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	Were All Container Temps taken: ☐ YES ☐ NO ☑ N/A
Correction Factor: +0.1 Cooler Temp Read w/Temp Blank: 1.5, 1.5, 1.8 °C Cooler Temp Corrected w/Temp Blank: 1.6, 1.9, 1.9 °C	Average Corrected Temp (no Temp Blank Only): _____ °C
NOTE: Temp should be above freezing to 6°C.	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): _____	Initials & Date of Person Examining Contents: SMC 11/1/2024
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6. 7 day hold
Sufficient Sample Volume?	☑	☐		7. 1-L: 2BP3N
Correct Containers Used?	☑	☐	☐	8.
– Pace Containers Used?	☐	☑		
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? NOTE: If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		11. If NO, write ID/Date/Time of container below: ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☑	☐	☐	12. Sample #: 1-2
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☑	☐	☐	12/2 ☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, verify with the PM first. Clients may require adding preservative to the field and equipment blanks when this occurs.				pH Paper Lot # (Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip): 205224
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION FIELD DATA REQUIRED: ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ Date: 11/01/24

NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: SMC Line: 3

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1792413	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	31-Oct	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test	Residual Chlorine (Y/N)	
1	CH-CCR-W317-1024	Drinking Water	DW	WT				17-Oct	15:54		1								1		Metals		MS/MSD, 200.7 - B, CA, BE, LI.
2	CH-CCR-FD04-1024	Water	WT	WT				17-Oct	16:55		1								1		Metals		200.7 - B, CA, BE, LI. 200.8-SB,
3		Waste Water	WW																				
4		Product	P																				
5		Soil/Solid	SL																				
6		Oil	OL																				
7		Wipe	WP																				
8		Air	AR																				
9		Other	OT																				
10		Tissue	TS																				
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	31-Oct	13:53				
Pace Analytical Batch: WG2393103							
Pace Analytical SDGs: L1792413							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	**DATE Signed:**				

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

ANALYTICAL REPORT

December 10, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

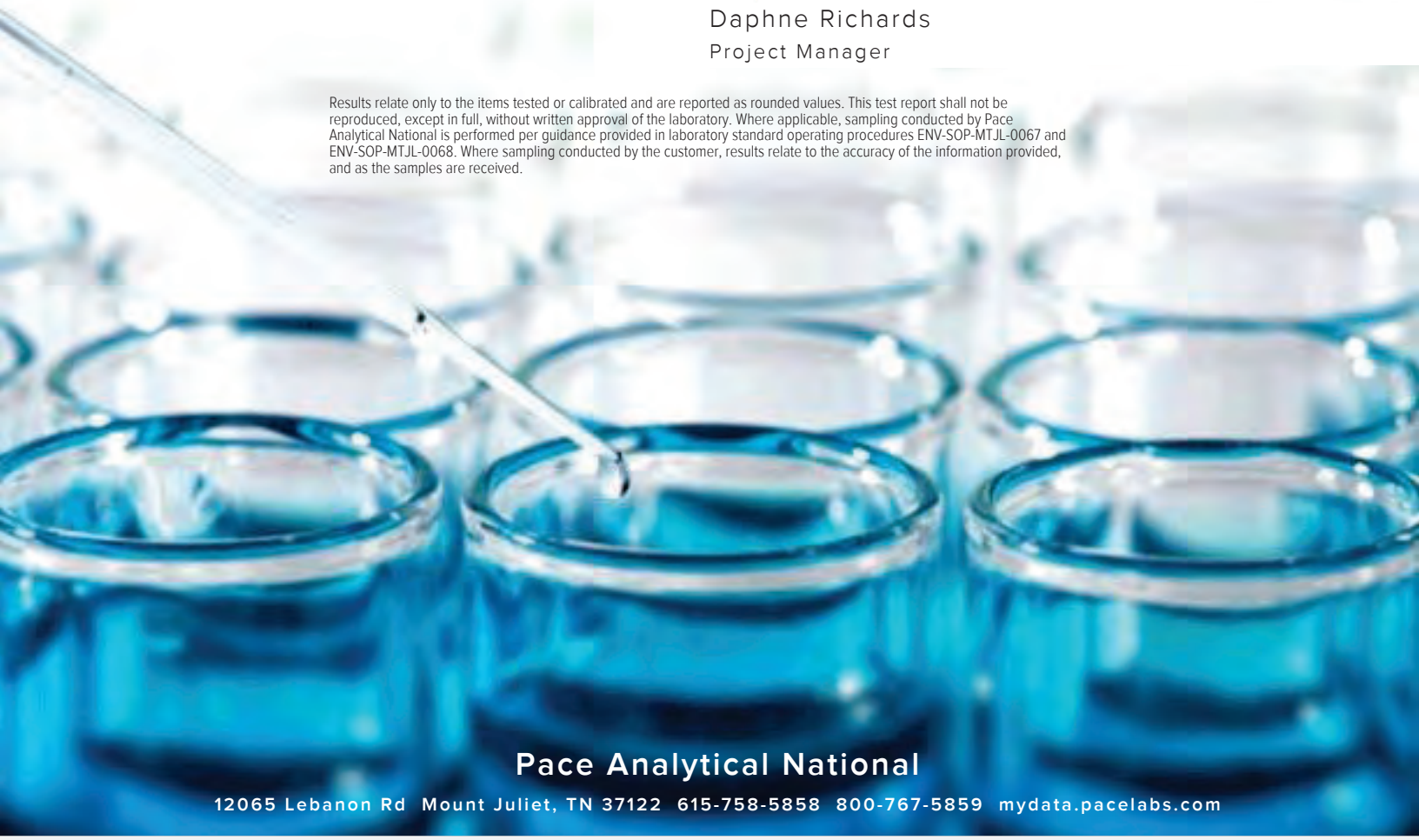
Sample Delivery Group:	L1795452
Samples Received:	11/04/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-CCR-BUDHUNT-1024 L1795452-01 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 10:17 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:17	11/06/24 09:17	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	1	11/05/24 19:48	11/05/24 19:48	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 20:06	11/05/24 20:06	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:35	11/05/24 18:35	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 11:58	11/06/24 11:58	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 19:26	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW72M-1024 L1795452-02 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 11:42 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:22	11/06/24 09:22	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	50	11/05/24 20:23	11/05/24 20:23	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	500	11/05/24 20:41	11/05/24 20:41	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2408754	5	11/26/24 18:55	11/26/24 18:55	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:41	11/05/24 18:41	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:02	11/06/24 12:02	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 20:12	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW71A-1024 L1795452-03 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 15:02 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:28	11/06/24 09:28	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 20:58	11/05/24 20:58	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/05/24 21:15	11/05/24 21:15	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:45	11/05/24 18:45	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:09	11/06/24 12:09	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 20:38	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW73A-1024 L1795452-04 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 16:12 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:32	11/06/24 09:32	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/11/24 16:17	11/11/24 16:17	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/05/24 22:25	11/05/24 22:25	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:51	11/05/24 18:51	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:11	11/06/24 12:11	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 20:51	KAM	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-MW73A-1024 L1795452-04 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 16:12 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-W314-1024 L1795452-05 WW

Collected by: Brad Hartman | Collected date/time: 10/30/24 10:03 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:04	11/06/24 09:04	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 22:43	11/05/24 22:43	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/05/24 23:00	11/05/24 23:00	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:53	11/05/24 18:53	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:14	11/06/24 12:14	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 21:33	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW74M-1024 L1795452-06 WW

Collected by: Brad Hartman | Collected date/time: 10/30/24 12:27 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:37	11/06/24 09:37	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 23:17	11/05/24 23:17	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/05/24 23:35	11/05/24 23:35	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:54	11/05/24 18:54	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:15	11/06/24 12:15	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 22:28	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW64A-1024 L1795452-07 WW

Collected by: Brad Hartman | Collected date/time: 10/30/24 15:48 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:43	11/06/24 09:43	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 23:52	11/05/24 23:52	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/06/24 00:10	11/06/24 00:10	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:56	11/05/24 18:56	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:16	11/06/24 12:16	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 22:57	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-MW77A-1024 L1795452-08 WW

Collected by: Brad Hartman
Collected date/time: 10/30/24 17:05
Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:58	11/06/24 09:58	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/06/24 00:27	11/06/24 00:27	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/06/24 00:44	11/06/24 00:44	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:57	11/05/24 18:57	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:18	11/06/24 12:18	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 23:11	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-M43A-1024 L1795452-09 WW

Collected by: Brad Hartman
Collected date/time: 10/31/24 10:23
Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 10:04	11/06/24 10:04	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2401598	10	11/14/24 20:41	11/14/24 20:41	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2401598	100	11/14/24 20:59	11/14/24 20:59	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:59	11/05/24 18:59	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:19	11/06/24 12:19	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 23:25	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-W126R-1024 L1795452-10 WW

Collected by: Brad Hartman
Collected date/time: 10/31/24 14:03
Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 10:09	11/06/24 10:09	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/06/24 02:11	11/06/24 02:11	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 19:00	11/05/24 19:00	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:20	11/06/24 12:20	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 23:39	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Project Narrative

L1795452 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1010000		20000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	177000		4750	20000	1	11/06/2024 09:17	WG2395947

Sample Narrative:
L1795452-01 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	315000		5470	10000	10	11/05/2024 20:06	WG2395684
Fluoride	438	B1	76.1	150	1	11/05/2024 19:48	WG2395684
Sulfate	247000		6370	50000	10	11/05/2024 20:06	WG2395684

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:35	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 11:58	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.85	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:
L1795452-01 WG2395863: 7.85 at 19.5C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	1130	H3	106	1000	1	11/05/2024 19:26	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	82300000		1000000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	27300		4750	20000	1	11/06/2024 09:22	WG2395947

Sample Narrative:

L1795452-02 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	32500000		274000	500000	500	11/05/2024 20:41	WG2395684
Fluoride	U		380	750	5	11/26/2024 18:55	WG2408754
Sulfate	1150000		31800	250000	50	11/05/2024 20:23	WG2395684

Sample Narrative:

L1795452-02 WG2408754, WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	764		53.9	100	1	11/05/2024 18:41	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	289		43.5	200	1	11/06/2024 12:02	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.89	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-02 WG2395863: 7.89 at 19.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1170	H3	106	1000	1	11/05/2024 20:12	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7460000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	94600		4750	20000	1	11/06/2024 09:28	WG2395947

Sample Narrative:

L1795452-03 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2130000		54700	100000	100	11/05/2024 21:15	WG2395684
Fluoride	3360	B1	761	1500	10	11/05/2024 20:58	WG2395684
Sulfate	2990000		63700	500000	100	11/05/2024 21:15	WG2395684

Sample Narrative:

L1795452-03 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	366		53.9	100	1	11/05/2024 18:45	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:09	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.60	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-03 WG2395863: 7.6 at 19.5C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1810	H3	106	1000	1	11/05/2024 20:38	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7440000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	91100		4750	20000	1	11/06/2024 09:32	WG2395947

Sample Narrative:

L1795452-04 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2070000		54700	100000	100	11/05/2024 22:25	WG2395684
Fluoride	4190	B1	761	1500	10	11/11/2024 16:17	WG2395684
Sulfate	3110000		63700	500000	100	11/05/2024 22:25	WG2395684

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:51	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	228		43.5	200	1	11/06/2024 12:11	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.40	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-04 WG2395863: 7.4 at 19.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1880	H3	106	1000	1	11/05/2024 20:51	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7040000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Carbonate	U		4750	20000	1	11/06/2024 09:04	WG2395947
Alkalinity,Hydroxide	U		4750	20000	1	11/06/2024 09:04	WG2395947

Sample Narrative:

L1795452-05 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2220000		54700	100000	100	11/05/2024 23:00	WG2395684
Fluoride	1200	B1 E4	761	1500	10	11/05/2024 22:43	WG2395684
Sulfate	2580000		63700	500000	100	11/05/2024 23:00	WG2395684

Sample Narrative:

L1795452-05 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:53	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:14	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.64	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-05 WG2395863: 7.64 at 19.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1730	H3	106	1000	1	11/05/2024 21:33	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	6960000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	88100		4750	20000	1	11/06/2024 09:37	WG2395947

Sample Narrative:

L1795452-06 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2120000		54700	100000	100	11/05/2024 23:35	WG2395684
Fluoride	1450	B1 E4	761	1500	10	11/05/2024 23:17	WG2395684
Sulfate	2590000		63700	500000	100	11/05/2024 23:35	WG2395684

Sample Narrative:

L1795452-06 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:54	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:15	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.63	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-06 WG2395863: 7.63 at 19.1C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1510	H3	106	1000	1	11/05/2024 22:28	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	12200000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	458000		4750	20000	1	11/06/2024 09:43	WG2395947

Sample Narrative:

L1795452-07 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4340000		54700	100000	100	11/06/2024 00:10	WG2395684
Fluoride	798	B1 E4	761	1500	10	11/05/2024 23:52	WG2395684
Sulfate	3470000		63700	500000	100	11/06/2024 00:10	WG2395684

Sample Narrative:

L1795452-07 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:56	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:16	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.51	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-07 WG2395863: 7.51 at 19.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	6630	H3	106	1000	1	11/05/2024 22:57	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	10800000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	230000		4750	20000	1	11/06/2024 09:58	WG2395947

Sample Narrative:

L1795452-08 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	3340000		54700	100000	100	11/06/2024 00:44	WG2395684
Fluoride	895	B1 E4	761	1500	10	11/06/2024 00:27	WG2395684
Sulfate	3930000		63700	500000	100	11/06/2024 00:44	WG2395684

Sample Narrative:

L1795452-08 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	873		53.9	100	1	11/05/2024 18:57	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:18	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.55	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-08 WG2395863: 7.55 at 19.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1940	H3	106	1000	1	11/05/2024 23:11	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	5580000		100000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Carbonate	U		4750	20000	1	11/06/2024 10:04	WG2395947
Alkalinity,Hydroxide	U		4750	20000	1	11/06/2024 10:04	WG2395947

Sample Narrative:

L1795452-09 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2160000		54700	100000	100	11/14/2024 20:59	WG2401598
Fluoride	1000	E4	761	1500	10	11/14/2024 20:41	WG2401598
Sulfate	2000000		63700	500000	100	11/14/2024 20:59	WG2401598

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	327		53.9	100	1	11/05/2024 18:59	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:19	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.58	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-09 WG2395863: 7.58 at 19.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	3200	H3	106	1000	1	11/05/2024 23:25	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	16500000		400000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	83800		4750	20000	1	11/06/2024 10:09	WG2395947

Sample Narrative:

L1795452-10 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	213000		5470	10000	10	11/06/2024 02:11	WG2395684
Fluoride	840	B1 E4	761	1500	10	11/06/2024 02:11	WG2395684
Sulfate	751000		6370	50000	10	11/06/2024 02:11	WG2395684

Sample Narrative:

L1795452-10 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	684		53.9	100	1	11/05/2024 19:00	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:20	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.52	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-10 WG2395863: 7.52 at 19.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2580	H3	106	1000	1	11/05/2024 23:39	WG2395607

Method Blank (MB)

(MB) R4143231-1 11/05/24 21:31

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		10000	10000

L1795371-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1795371-01 11/05/24 21:31 • (DUP) R4143231-3 11/05/24 21:31

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	148000	148000	1	0.000		10

L1795603-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1795603-04 11/05/24 21:31 • (DUP) R4143231-4 11/05/24 21:31

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	201000000	236000000	1	15.7	R8	10

Laboratory Control Sample (LCS)

(LCS) R4143231-2 11/05/24 21:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8210000	93.3	85.0-115	

Method Blank (MB)

(MB) R4142768-2 11/06/24 08:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000
Alkalinity,Hydroxide	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1795452-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-05 11/06/24 09:04 • (DUP) R4142768-3 11/06/24 09:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	113000	113000	1	0.679		20
Alkalinity,Carbonate	U	U	1	0.000		20
Alkalinity,Hydroxide	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1795789-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1795789-04 11/06/24 10:56 • (DUP) R4142768-4 11/06/24 11:03

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	620000	625000	1	0.769		20
Alkalinity,Carbonate	42800	42400	1	0.875		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4143313-1 11/05/24 17:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	99.4	E4	76.1	150
Sulfate	U		637	5000

L1794541-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1794541-23 11/05/24 17:46 • (DUP) R4143313-3 11/05/24 18:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	19800	19600	1	1.33		15
Fluoride	359	358	1	0.279		15
Sulfate	1240	1170	1	5.30	E4	15

L1795430-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1795430-01 11/05/24 18:56 • (DUP) R4143313-6 11/05/24 19:14

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6960	6520	1	6.61		15
Fluoride	705	633	1	10.7		15
Sulfate	2820	2580	1	8.94	E4	15

Laboratory Control Sample (LCS)

(LCS) R4143313-2 11/05/24 17:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40200	100	90.0-110	
Fluoride	8000	8350	104	90.0-110	
Sulfate	40000	40700	102	90.0-110	

L1794541-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794541-23 11/05/24 17:46 • (MS) R4143313-4 11/05/24 18:21 • (MSD) R4143313-5 11/05/24 18:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	19800	57100	56400	93.1	91.4	1	90.0-110			1.20	15
Fluoride	8000	359	7850	7710	93.6	91.9	1	90.0-110			1.71	15
Sulfate	40000	1240	42600	41800	104	101	1	90.0-110			2.02	15

L1795430-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1795430-01 11/05/24 18:56 • (MS) R4143313-7 11/05/24 19:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	6960	46500	98.8	1	90.0-110	
Fluoride	8000	705	8980	103	1	90.0-110	
Sulfate	40000	2820	43600	102	1	90.0-110	

Method Blank (MB)

(MB) R4146364-1 11/14/24 14:36

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1794416-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-21 11/14/24 16:55 • (DUP) R4146364-3 11/14/24 17:12

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	496000	624000	5	22.8	R8	15
Fluoride	403	469	5	15.1	E4 R8	15
Sulfate	4400000	5470000	5	21.7	R8	15

L1794416-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-22 11/14/24 18:05 • (DUP) R4146364-6 11/14/24 18:22

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	855000	857000	5	0.229		15
Fluoride	800	748	5	6.73	E4	15
Sulfate	6840000	6860000	5	0.313		15

Laboratory Control Sample (LCS)

(LCS) R4146364-2 11/14/24 14:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40100	100	90.0-110	
Fluoride	8000	8180	102	90.0-110	
Sulfate	40000	40500	101	90.0-110	

L1794416-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-21 11/14/24 16:55 • (MS) R4146364-4 11/14/24 17:30 • (MSD) R4146364-5 11/14/24 17:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	496000	525000	530000	73.0	85.5	5	90.0-110	M3	M3	0.944	15
Fluoride	8000	403	8010	8000	95.1	94.9	5	90.0-110			0.220	15
Sulfate	40000	4400000	4380000	4400000	0.000	2.43	5	90.0-110	E1 M3	E1 M3	0.437	15

L1794416-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-22 11/14/24 18:05 • (MS) R4146364-7 11/14/24 18:39 • (MSD) R4146364-8 11/14/24 18:57

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	855000	732000	745000	0.000	0.000	5	90.0-110	M3	M3	1.77	15
Fluoride	8000	800	8790	9010	99.9	103	5	90.0-110			2.41	15
Sulfate	40000	6840000	5610000	5680000	0.000	0.000	5	90.0-110	E1 M3	E1 M3	1.07	15

L1794416-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-23 11/14/24 19:14 • (MS) R4146364-9 11/14/24 19:32 • (MSD) R4146364-10 11/14/24 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	621000	532000	535000	0.000	0.000	5	90.0-110	M3	M3	0.649	15
Fluoride	8000	472	8330	8260	98.3	97.3	5	90.0-110			0.922	15
Sulfate	40000	5450000	4400000	4450000	0.000	0.000	5	90.0-110	E1 M3	E1 M3	1.08	15

Method Blank (MB)

(MB) R4151159-1 11/26/24 18:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Fluoride	U		76.1	150

L1803877-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1803877-01 11/26/24 20:15 • (DUP) R4151159-3 11/26/24 20:31

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	3710	3700	1	0.186		15

L1803877-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1803877-03 11/26/24 22:22 • (DUP) R4151159-7 11/26/24 22:38

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	2060	2060	1	0.345		15

Laboratory Control Sample (LCS)

(LCS) R4151159-2 11/26/24 18:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8000	8040	100	90.0-110	

L1803877-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1803877-01 11/26/24 20:15 • (MS) R4151159-4 11/26/24 20:47 • (MSD) R4151159-5 11/26/24 21:03

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	8000	3710	11200	11200	93.1	93.7	1	90.0-110	E1	E1	0.460	15

L1803877-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1803877-03 11/26/24 22:22 • (MS) R4151159-8 11/26/24 22:54

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	8000	2060	9780	96.6	1	90.0-110	

QUALITY CONTROL SUMMARY

L1795452-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R4142427-1 11/05/24 18:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ammonia Nitrogen	U		53.9	100

L1795452-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-01 11/05/24 18:35 • (DUP) R4142427-3 11/05/24 18:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	U	U	1	0.000		10

L1795452-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-02 11/05/24 18:41 • (DUP) R4142427-6 11/05/24 18:42

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	764	749	1	1.98		10

Laboratory Control Sample (LCS)

(LCS) R4142427-2 11/05/24 18:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	7500	7710	103	90.0-110	

L1795452-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1795452-01 11/05/24 18:35 • (MS) R4142427-4 11/05/24 18:38 • (MSD) R4142427-5 11/05/24 18:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5000	U	5020	4910	100	98.2	1	90.0-110			2.28	10

L1795452-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1795452-02 11/05/24 18:41 • (MS) R4142427-7 11/05/24 18:44

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ammonia Nitrogen	5000	764	5850	102	1	90.0-110	

QUALITY CONTROL SUMMARY

L1795452-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R4142717-1 11/06/24 11:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate-Nitrite	U		43.5	200

L1795452-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-02 11/06/24 12:02 • (DUP) R4142717-5 11/06/24 12:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	289	281	1	2.81		20

L1795452-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-04 11/06/24 12:11 • (DUP) R4142717-7 11/06/24 12:12

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	228	226	1	0.881		20

Laboratory Control Sample (LCS)

(LCS) R4142717-2 11/06/24 11:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2470	98.8	90.0-110	

L1795452-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1795452-01 11/06/24 11:58 • (MS) R4142717-3 11/06/24 12:00 • (MSD) R4142717-4 11/06/24 12:01

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	U	2410	2400	96.4	96.0	1	90.0-110			0.416	20

L1795452-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1795452-03 11/06/24 12:09 • (MS) R4142717-6 11/06/24 12:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	U	2410	96.4	1	90.0-110	

L1795452-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-02 11/05/24 18:20 • (DUP) R4142410-2 11/05/24 18:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.89	7.89	1	0.000		1

Sample Narrative:

OS: 7.89 at 19.6C

DUP: 7.89 at 19.6C

L1795742-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1795742-01 11/05/24 18:20 • (DUP) R4142410-3 11/05/24 18:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	9.58	9.59	1	0.104		1

Sample Narrative:

OS: 9.58 at 19.4C

DUP: 9.59 at 19.5C

Laboratory Control Sample (LCS)

(LCS) R4142410-1 11/05/24 18:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 20.5C

QUALITY CONTROL SUMMARY

L1795452-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R4142462-2 11/05/24 16:51

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
DOC	U		106	1000

L1795452-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-02 11/05/24 20:12 • (DUP) R4142462-5 11/05/24 20:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	1170	1140	1	3.38		20

L1795452-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-06 11/05/24 22:28 • (DUP) R4142462-8 11/05/24 22:42

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	1510	1400	1	7.97		20

Laboratory Control Sample (LCS)

(LCS) R4142462-1 11/05/24 16:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
DOC	25000	24100	96.4	85.0-115	

L1795452-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1795452-01 11/05/24 19:26 • (MS) R4142462-3 11/05/24 19:43 • (MSD) R4142462-4 11/05/24 19:59

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25000	1130	25100	25100	95.8	95.9	1	80.0-120			0.120	20

L1795452-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1795452-05 11/05/24 21:33 • (MS) R4142462-6 11/05/24 21:50 • (MSD) R4142462-7 11/05/24 22:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25000	1730	25800	25600	96.4	95.6	1	80.0-120			0.739	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 Diss Metals FF 250mlHDPE-HNO3 Field Filter	200.7 Total Metals 250mlHDPE-HNO3	200.8 Diss Metals FF 250mlHDPE-HNO3 Field Filter	200.8 Total Metals 250mlHDPE-HNO3	ALK, ALKOH, ALK HCO3 125mlHDPE-NoPres	Chloride 250mlHDPE-NoPres	DOC 250mlAmb-No Pres	Fluoride 250mlHDPE-NoPres	Hg 250mlHDPE-HNO3	NH3 250mlHDPENaThioH2SO4	Remarks	Sample # (lab only)
CH-CCR-BudHunt-1024	Grab	GW		10-29-24	1017	10	X	X	X	X	X	X	X	X	X	X		-01
CH-CCR-MW72M-1024		GW			1142	10	X	X	X	X	X	X	X	X	X	X		-02
CH-CCR-MW71A-1024		GW			1502	10	X	X	X	X	X	X	X	X	X	X		-03
CH-CCR-MW73A-1024		GW			1612	10	X	X	X	X	X	X	X	X	X	X		-04
CH-CCR-W314-1024		GW		10-30-24	1003	~~10~~ 9	X	X	X	X		X	X	X	X	X		-05
CH-CCR-MW74M-1024		GW			1227	10	X	X	X	X	X	X	X	X	X	X		-06
CH-CCR-M64A-1024		GW			1548	10	X	X	X	X	X	X	X	X	X	X		-07
CH-CCR-MW77A-1024		GW			1705	10												-08
CH-CCR-M43A-1024		GW		10-31-24	1023	~~9~~ 10												-09
CH-CCR-W126R-1024		GW			1403	10												-10

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1795452
B169

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co
↑ Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Stamand	11/1/2024	16:14	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/1/24	1800	FedEx
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			CRORENO

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 99

Date: 11-04-24 Time: 1000

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk: <2

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

SDG # L1795452

Table #

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. # P104414US024

Acctnum: AMECTAZ
Template: T261974
Prelogin: P1107670
PM: 288 - Daphne Richards
PB:

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Sulfate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres						Remarks	Sample # (lab only)
CH-CCR-BudHunt-1024	grab	WW		10-29-24	1017	10	X	X	X		X							-01
CH-CCR-MW72M-1024		WW		↓	1142	10	X	X	X		X							-02
CH-CCR-MW71A-1024		WW		↓	1502	10	X	X	X		X							-03
CH-CCR-MW73A-1024		WW		↓	1612	10	X	X	X		X							-04
CH-CCR-W314-1024		WW		10-30-24	1003	9	X	X	X		X							-05
CH-CCR-MW74M-1024		WW		↓	1227	10	X	X	X		X							-06
CH-CCR-M64A-1024		WW		↓	1548	10	X	X	X		X							-07
CH-CCR-MW77A-1024		WW		↓	1705	10												-08
CH-CCR-M43A-1024		WW		10-31-24	1023	10												-09
CH-CCR-W126R-1024		WW		↓	1403	10												-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co
↑ Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
[signature]	11/1/2024	16:14	[signature]	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 99
[signature]	11/1/24	1800	FedEx	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11.04.24 Time: 1000
			[signature]	

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPA7

LT95452

Fed Ex tracking #	Gun ID	Temperature
4041 0488 3106	TDA9	1.7+0.3=2.0
4041 0488 3091	TDA9	1.8+0.3=2.1
4041 0488 3117	TDA9	3.2+0.3=3.5

Name

Date

11/5-NCF-L1795452 AMECTAZ

R5

Time estimate: oh **Time spent:** oh

Members

Hailey Robertson (responsible) DR Daphne Richards

Due on *8 November 2024 8:00 AM* for target *Done*

- [x] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [ ] Sample IDs on containers do not match IDs on COC
- [x] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Hailey Robertson *5 November 2024 9:12 AM*

Client did not mark analysis for IDs: CH-CCR-MW77A-1024, CH-CCR-M43A-1024, CH-CCR-W126R-1024. Currently logged for the same analysis as the other IDs on the COC.

Daphne Richards *5 November 2024 9:14 AM*

Proceed using analysis on CoC as other samples

Hailey Robertson *5 November 2024 9:14 AM*

Done

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 25, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1795452 WG2396638
Pace Project No.: 10715045

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10715045001	**CH-CCR-BUDHUNT-1024**	Water	10/29/24 10:17	11/08/24 10:00
10715045002	**CH-CCR-MW72M-1024**	Water	10/29/24 11:42	11/08/24 10:00
10715045003	**CH-CCR-MW71A-1024**	Water	10/29/24 15:02	11/08/24 10:00
10715045004	**CH-CCR-MW73A-1024**	Water	10/29/24 16:12	11/08/24 10:00
10715045005	**CH-CCR-W314-1024**	Water	10/30/24 10:03	11/08/24 10:00
10715045006	**CH-CCR-MW74M-1024**	Water	10/30/24 12:27	11/08/24 10:00
10715045007	**CH-CCR-MW64A-1024**	Water	10/30/24 15:48	11/08/24 10:00
10715045008	**CH-CCR-MW77A-1024**	Water	10/30/24 17:05	11/08/24 10:00
10715045009	**CH-CCR-M43A-1024**	Water	10/31/24 10:23	11/08/24 10:00
10715045010	**CH-CCR-W126R-1024**	Water	10/31/24 14:03	11/08/24 10:00

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(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045002	**CH-CCR-MW72M-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045003	**CH-CCR-MW71A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045004	**CH-CCR-MW73A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045005	**CH-CCR-W314-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045006	**CH-CCR-MW74M-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045007	**CH-CCR-MW64A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045008	**CH-CCR-MW77A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045009	**CH-CCR-M43A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045010	**CH-CCR-W126R-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-BUDHUNT-1024 **Lab ID: 10715045001** Collected: 10/29/24 10:17 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:32	7440-41-7	
Boron	**125J**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:32	7440-42-8	
Calcium	**81300**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:32	7440-70-2	
Iron	**9.2J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:32	7439-89-6	
Magnesium	**39100**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:32	7439-95-4	
Manganese	**0.90J**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:32	7439-96-5	
Potassium	**3660**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:01	7440-09-7	
Sodium	**219000**	ug/L	5000	227	5	11/11/24 13:54	11/18/24 16:37	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**7.5J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:16	7439-89-6	
Manganese, Dissolved	**0.79J**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:16	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.087**	ug/L	0.50	0.087	1	11/11/24 14:14	11/13/24 12:43	7440-36-0	
Arsenic	**0.46J**	ug/L	0.50	0.12	1	11/11/24 14:14	11/13/24 12:43	7440-38-2	
Barium	**10.9**	ug/L	0.30	0.070	1	11/11/24 14:14	11/13/24 12:43	7440-39-3	
Cadmium	**<0.030**	ug/L	0.080	0.030	1	11/11/24 14:14	11/13/24 12:43	7440-43-9	
Chromium	**<0.54**	ug/L	2.0	0.54	1	11/11/24 14:14	11/13/24 12:43	7440-47-3	
Cobalt	**<0.095**	ug/L	0.50	0.095	1	11/11/24 14:14	11/13/24 12:43	7440-48-4	
Lead	**0.23J**	ug/L	0.50	0.18	1	11/11/24 14:14	11/13/24 12:43	7439-92-1	
Lithium	**19.5**	ug/L	0.50	0.18	1	11/11/24 14:14	11/13/24 12:43	7439-93-2	
Molybdenum	**1.7**	ug/L	0.50	0.13	1	11/11/24 14:14	11/13/24 12:43	7439-98-7	
Selenium	**1.4**	ug/L	0.50	0.074	1	11/11/24 14:14	11/13/24 12:43	7782-49-2	
Thallium	**<0.026**	ug/L	0.10	0.026	1	11/11/24 14:14	11/13/24 12:43	7440-28-0	
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.49J**	ug/L	0.50	0.12	1	11/11/24 14:14	11/14/24 09:28	7440-38-2	
Cobalt, Dissolved	**<0.095**	ug/L	0.50	0.095	1	11/11/24 14:14	11/14/24 09:28	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:35	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW72M-1024 **Lab ID: 10715045002** Collected: 10/29/24 11:42 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<2.2**	ug/L	25.0	2.2	5	11/11/24 13:54	11/12/24 14:48	7440-41-7	D3
Boron	**515J**	ug/L	750	80.0	5	11/11/24 13:54	11/12/24 14:48	7440-42-8	
Calcium	**7790000**	ug/L	50000	3180	100	11/11/24 13:54	11/18/24 16:59	7440-70-2	
Iron	**403**	ug/L	250	37.3	5	11/11/24 13:54	11/12/24 14:48	7439-89-6	
Magnesium	**1010000**	ug/L	2500	144	5	11/11/24 13:54	11/12/24 14:48	7439-95-4	
Manganese	**3420**	ug/L	25.0	2.5	5	11/11/24 13:54	11/12/24 14:48	7439-96-5	
Potassium	**156000**	ug/L	12500	540	5	11/11/24 13:54	11/18/24 16:03	7440-09-7	
Sodium	**10900000**	ug/L	100000	4540	100	11/11/24 13:54	11/18/24 16:59	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**<37.3**	ug/L	250	37.3	5	11/11/24 13:54	11/12/24 13:50	7439-89-6	D3
Manganese, Dissolved	**3550**	ug/L	25.0	2.5	5	11/11/24 13:54	11/12/24 13:50	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 12:34	7440-36-0	D3
Arsenic	**3.5**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 12:34	7440-38-2	
Barium	**121**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 12:34	7440-39-3	
Cadmium	**0.21J**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 12:34	7440-43-9	D3
Chromium	**10.2**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 12:34	7440-47-3	
Cobalt	**2.6**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 12:34	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 12:34	7439-92-1	D3
Lithium	**3720**	ug/L	50.0	18.5	100	11/11/24 14:14	11/13/24 12:51	7439-93-2	
Molybdenum	**20.1**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 12:34	7439-98-7	
Selenium	**3.7**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 12:34	7782-49-2	
Thallium	**1.6**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 12:34	7440-28-0	
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**3.5**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:04	7440-38-2	
Cobalt, Dissolved	**1.8J**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:04	7440-48-4	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:39	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW71A-1024 **Lab ID: 10715045003** Collected: 10/29/24 15:02 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:36	7440-41-7	
Boron	**3760**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:36	7440-42-8	
Calcium	**554000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:36	7440-70-2	
Iron	**375**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:36	7439-89-6	
Magnesium	**224000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:36	7439-95-4	
Manganese	**5610**	ug/L	10.0	1.0	2	11/11/24 13:54	11/12/24 14:47	7439-96-5	
Potassium	**20600**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:05	7440-09-7	
Sodium	**1440000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:40	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**8.5J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:22	7439-89-6	
Manganese, Dissolved	**5300**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:22	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 12:47	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 12:47	7440-38-2	D3
Barium	**15.9**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 12:47	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 12:47	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 12:47	7440-47-3	D3
Cobalt	**11.8**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 12:47	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 12:47	7439-92-1	D3
Lithium	**161**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 12:47	7439-93-2	
Molybdenum	**32.1**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 12:47	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 12:47	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 12:47	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:12	7440-38-2	D3
Cobalt, Dissolved	**11.1**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:12	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:41	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW73A-1024 **Lab ID: 10715045004** Collected: 10/29/24 16:12 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:37	7440-41-7	
Boron	**4250**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:37	7440-42-8	
Calcium	**532000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:37	7440-70-2	
Iron	**1760**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:37	7439-89-6	
Magnesium	**263000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:37	7439-95-4	
Manganese	**537**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:37	7439-96-5	
Potassium	**22300**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:12	7440-09-7	
Sodium	**1600000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:42	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**547**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:29	7439-89-6	
Manganese, Dissolved	**230**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:29	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 12:55	7440-36-0	D3
Arsenic	**1.0J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 12:55	7440-38-2	D3
Barium	**8.6**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 12:55	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 12:55	7440-43-9	D3
Chromium	**706**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 12:55	7440-47-3	
Cobalt	**13.0**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 12:55	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 12:55	7439-92-1	D3
Lithium	**148**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 12:55	7439-93-2	
Molybdenum	**199**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 12:55	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 12:55	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 12:55	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:21	7440-38-2	D3
Cobalt, Dissolved	**14.6**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:21	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:46	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-W314-1024 **Lab ID: 10715045005** Collected: 10/30/24 10:03 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:39	7440-41-7	
Boron	**1650**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:39	7440-42-8	
Calcium	**584000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:39	7440-70-2	
Iron	**25.5J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:39	7439-89-6	
Magnesium	**160000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:39	7439-95-4	
Manganese	**272**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:39	7439-96-5	
Potassium	**3330**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:13	7440-09-7	
Sodium	**1600000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:43	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**20.0J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:31	7439-89-6	
Manganese, Dissolved	**280**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:31	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:12	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:12	7440-38-2	D3
Barium	**9.2**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:12	7440-39-3	
Cadmium	**0.55**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:12	7440-43-9	
Chromium	**4.0J**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:12	7440-47-3	D3
Cobalt	**40.5**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:12	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:12	7439-92-1	D3
Lithium	**238**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:12	7439-93-2	
Molybdenum	**15.6**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:12	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:12	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:12	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:37	7440-38-2	D3
Cobalt, Dissolved	**40.2**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:37	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:48	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW74M-1024 **Lab ID: 10715045006** Collected: 10/30/24 12:27 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:41	7440-41-7	
Boron	**2290**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:41	7440-42-8	
Calcium	**620000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:41	7440-70-2	
Iron	**241**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:41	7439-89-6	
Magnesium	**146000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:41	7439-95-4	
Manganese	**201**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:41	7439-96-5	
Potassium	**18100**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:15	7440-09-7	
Sodium	**1500000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:45	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**13.4J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:33	7439-89-6	
Manganese, Dissolved	**189**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:33	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:20	7440-36-0	D3
Arsenic	**0.66J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:20	7440-38-2	D3
Barium	**9.1**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:20	7440-39-3	
Cadmium	**0.16J**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:20	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:20	7440-47-3	D3
Cobalt	**13.6**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:20	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:20	7439-92-1	D3
Lithium	**188**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:20	7439-93-2	
Molybdenum	**39.5**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:20	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:20	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:20	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:46	7440-38-2	D3
Cobalt, Dissolved	**13.5**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:46	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:49	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW64A-1024 **Lab ID: 10715045007** Collected: 10/30/24 15:48 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:42	7440-41-7	
Boron	**1030**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:42	7440-42-8	
Calcium	**556000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:42	7440-70-2	
Iron	**6430**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:42	7439-89-6	
Magnesium	**288000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:42	7439-95-4	
Manganese	**2300**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:42	7439-96-5	
Potassium	**20600**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:17	7440-09-7	
Sodium	**3130000**	ug/L	20000	908	20	11/11/24 13:54	11/18/24 16:47	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**5980**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:34	7439-89-6	
Manganese, Dissolved	**2300**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:34	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:24	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:24	7440-38-2	D3
Barium	**12.3**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:24	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:24	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:24	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:24	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:24	7439-92-1	D3
Lithium	**223**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:24	7439-93-2	
Molybdenum	**3.3**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:24	7439-98-7	
Selenium	**0.48J**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:24	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:24	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:54	7440-38-2	D3
Cobalt, Dissolved	**<0.48**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:54	7440-48-4	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:51	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW77A-1024 **Lab ID: 10715045008** Collected: 10/30/24 17:05 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:44	7440-41-7	
Boron	**781**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:44	7440-42-8	
Calcium	**487000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:44	7440-70-2	
Iron	**14.3J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:44	7439-89-6	
Magnesium	**108000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:44	7439-95-4	
Manganese	**685**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:44	7439-96-5	
Potassium	**10500**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:18	7440-09-7	
Sodium	**2900000**	ug/L	20000	908	20	11/11/24 13:54	11/18/24 16:48	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**7.9J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:36	7439-89-6	
Manganese, Dissolved	**690**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:36	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:33	7440-36-0	D3
Arsenic	**0.81J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:33	7440-38-2	D3
Barium	**8.2**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:33	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:33	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:33	7440-47-3	D3
Cobalt	**5.1**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:33	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:33	7439-92-1	D3
Lithium	**412**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:33	7439-93-2	
Molybdenum	**4.7**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:33	7439-98-7	
Selenium	**1.4J**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:33	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:33	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.76J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 16:02	7440-38-2	D3
Cobalt, Dissolved	**5.3**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 16:02	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:52	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-M43A-1024 **Lab ID: 10715045009** Collected: 10/31/24 10:23 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:51	7440-41-7	
Boron	**525**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:51	7440-42-8	
Calcium	**522000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:51	7440-70-2	P6
Iron	**2300**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:51	7439-89-6	
Magnesium	**205000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:51	7439-95-4	P6
Manganese	**1730**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:51	7439-96-5	
Potassium	**13500**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:20	7440-09-7	
Sodium	**1470000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:53	7440-23-5	P6
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**1780**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:38	7439-89-6	
Manganese, Dissolved	**1740**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:38	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:41	7440-36-0	D3
Arsenic	**2.2J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:41	7440-38-2	D3
Barium	**17.8**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:41	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:41	7440-43-9	D3
Chromium	**3.1J**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:41	7440-47-3	D3
Cobalt	**0.49J**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:41	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:41	7439-92-1	D3
Lithium	**105**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:41	7439-93-2	
Molybdenum	**14.2**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:41	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:41	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:41	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**1.0J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 16:11	7440-38-2	D3
Cobalt, Dissolved	**0.52J**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 16:11	7440-48-4	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:56	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-W126R-1024 **Lab ID: 10715045010** Collected: 10/31/24 14:03 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:54	7440-41-7	
Boron	**53500**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:54	7440-42-8	
Calcium	**670000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:54	7440-70-2	
Iron	**52.9**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:54	7439-89-6	
Magnesium	**453000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:54	7439-95-4	
Manganese	**970**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:54	7439-96-5	
Potassium	**57700**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:23	7440-09-7	
Sodium	**4170000**	ug/L	50000	2270	50	11/11/24 13:54	11/18/24 17:00	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**62.4**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:41	7439-89-6	
Manganese, Dissolved	**935**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:41	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 11:40	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 11:40	7440-38-2	D3
Barium	**9.1**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 11:40	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 11:40	7440-43-9	D3
Chromium	**5.6J**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 11:40	7440-47-3	D3
Cobalt	**4.5**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 11:40	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 11:40	7439-92-1	D3
Lithium	**490**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 11:40	7439-93-2	
Molybdenum	**198**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 11:40	7439-98-7	
Selenium	**1.4J**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 11:40	7782-49-2	D3
Thallium	**0.16J**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 11:40	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.63J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 16:27	7440-38-2	D3
Cobalt, Dissolved	**4.7**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 16:27	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:57	7439-97-6	

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978852
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115450 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/14/24 10:28	

LABORATORY CONTROL SAMPLE: 5115451

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115452 5115453

Parameter	Units	10715045001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	5.0	4.9	99	97	70-130	2	20	

MATRIX SPIKE SAMPLE: 5115454

Parameter	Units	10715045008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.074	5	4.9	98	70-130	

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978833
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115368 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/12/24 13:19	
Boron	ug/L	16.3J	150	16.0	11/12/24 13:19	
Calcium	ug/L	<31.8	500	31.8	11/12/24 13:19	
Iron	ug/L	<7.5	50.0	7.5	11/12/24 13:19	
Magnesium	ug/L	<28.9	500	28.9	11/12/24 13:19	
Manganese	ug/L	<0.50	5.0	0.50	11/12/24 13:19	
Potassium	ug/L	<108	2500	108	11/12/24 13:19	
Sodium	ug/L	67.9J	1000	45.4	11/12/24 13:19	

LABORATORY CONTROL SAMPLE: 5115369

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	980	98	85-115	
Boron	ug/L	1000	1000	100	85-115	
Calcium	ug/L	20000	18500	93	85-115	
Iron	ug/L	20000	18900	94	85-115	
Magnesium	ug/L	20000	18800	94	85-115	
Manganese	ug/L	1000	978	98	85-115	
Potassium	ug/L	20000	18200	91	85-115	
Sodium	ug/L	20000	18400	92	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115370 5115371

Parameter	Units	10715044001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1050	1050	105	105	70-130	0	20	
Boron	ug/L	3550	1000	1000	4830	4680	128	113	70-130	3	20	
Calcium	ug/L	565000	20000	20000	599000	588000	169	117	70-130	2	20	P6
Iron	ug/L	757	20000	20000	19500	19400	93	93	70-130	0	20	
Magnesium	ug/L	225000	20000	20000	254000	248000	143	114	70-130	2	20	P6
Manganese	ug/L	1930	1000	1000	2930	2880	100	95	70-130	2	20	
Potassium	ug/L	4140	20000	20000	30000	29500	129	127	70-130	2	20	
Sodium	ug/L	1640000	20000	20000	1630000	1610000	-46	-125	70-130	1	20	P6

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

MATRIX SPIKE SAMPLE: 5115372

Parameter	Units	10715045009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	1050	105	70-130	
Boron	ug/L	525	1000	1640	111	70-130	
Calcium	ug/L	522000	20000	556000	167	70-130	P6
Iron	ug/L	2300	20000	21200	94	70-130	
Magnesium	ug/L	205000	20000	235000	147	70-130	P6
Manganese	ug/L	1730	1000	2750	101	70-130	
Potassium	ug/L	13500	20000	37600	120	70-130	
Sodium	ug/L	1470000	20000	1290000	-919	70-130	P6

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978831
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115358 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<7.5	50.0	7.5	11/12/24 13:01	
Manganese, Dissolved	ug/L	<0.50	5.0	0.50	11/12/24 13:01	

LABORATORY CONTROL SAMPLE: 5115359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	20000	19200	96	85-115	
Manganese, Dissolved	ug/L	1000	962	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115360 5115361

Parameter	Units	10715044001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	330	20000	20000	19300	19600	95	96	70-130	1	20	
Manganese, Dissolved	ug/L	1880	1000	1000	2830	2860	95	98	70-130	1	20	

MATRIX SPIKE SAMPLE: 5115362

Parameter	Units	10715045009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	1780	20000	21000	96	70-130	
Manganese, Dissolved	ug/L	1740	1000	2710	97	70-130	

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978834
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115373 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/12/24 15:01	
Arsenic	ug/L	<0.12	0.50	0.12	11/12/24 15:01	
Barium	ug/L	<0.070	0.30	0.070	11/12/24 15:01	
Cadmium	ug/L	<0.030	0.080	0.030	11/12/24 15:01	
Chromium	ug/L	<0.54	2.0	0.54	11/12/24 15:01	
Cobalt	ug/L	<0.095	0.50	0.095	11/12/24 15:01	
Lead	ug/L	<0.18	0.50	0.18	11/12/24 15:01	
Lithium	ug/L	<0.18	0.50	0.18	11/12/24 15:01	
Molybdenum	ug/L	<0.13	0.50	0.13	11/12/24 15:01	
Selenium	ug/L	<0.074	0.50	0.074	11/12/24 15:01	
Thallium	ug/L	<0.026	0.10	0.026	11/12/24 15:01	

LABORATORY CONTROL SAMPLE: 5115374

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	97.6	98	85-115	
Arsenic	ug/L	100	101	101	85-115	
Barium	ug/L	100	104	104	85-115	
Cadmium	ug/L	100	97.0	97	85-115	
Chromium	ug/L	100	104	104	85-115	
Cobalt	ug/L	100	106	106	85-115	
Lead	ug/L	100	106	106	85-115	
Lithium	ug/L	100	104	104	85-115	
Molybdenum	ug/L	100	95.8	96	85-115	
Selenium	ug/L	100	103	103	85-115	
Thallium	ug/L	100	101	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115375 5115376

Parameter	Units	10715044002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.087	100	100	93.3	92.8	93	93	70-130	0	20	
Arsenic	ug/L	0.74	100	100	104	104	104	104	70-130	0	20	
Barium	ug/L	10.1	100	100	113	113	103	103	70-130	0	20	
Cadmium	ug/L	0.33	100	100	82.3	81.3	82	81	70-130	1	20	
Chromium	ug/L	1.0J	100	100	111	107	110	106	70-130	3	20	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115375 5115376

Parameter	Units	10715044002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	ug/L	14.4	100	100	117	116	103	102	70-130	1	20	
Lead	ug/L	1.9	100	100	104	105	102	103	70-130	1	20	
Lithium	ug/L	144	100	100	232	233	88	90	70-130	1	20	
Molybdenum	ug/L	31.4	100	100	126	126	95	94	70-130	0	20	
Selenium	ug/L	1.9	100	100	103	107	101	105	70-130	4	20	
Thallium	ug/L	<0.13	100	100	102	100	102	100	70-130	1	20	

MATRIX SPIKE SAMPLE: 5115377

Parameter	Units	10715045010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.44	100	95.0	95	70-130	
Arsenic	ug/L	<0.61	100	102	102	70-130	
Barium	ug/L	9.1	100	106	97	70-130	
Cadmium	ug/L	<0.15	100	89.0	89	70-130	
Chromium	ug/L	5.6J	100	110	104	70-130	
Cobalt	ug/L	4.5	100	105	101	70-130	
Lead	ug/L	<0.90	100	96.2	96	70-130	
Lithium	ug/L	490	100	598	107	70-130	
Molybdenum	ug/L	198	100	291	93	70-130	
Selenium	ug/L	1.4J	100	96.5	95	70-130	
Thallium	ug/L	0.16J	100	101	101	70-130	

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978832
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115363 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<0.12	0.50	0.12	11/13/24 13:58	
Cobalt, Dissolved	ug/L	<0.095	0.50	0.095	11/13/24 13:58	

LABORATORY CONTROL SAMPLE: 5115364

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	97.1	97	85-115	
Cobalt, Dissolved	ug/L	100	103	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115365 5115366

Parameter	Units	10715044002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	<0.61	100	100	105	106	104	106	70-130	1	20	
Cobalt, Dissolved	ug/L	15.4	100	100	119	121	104	106	70-130	2	20	

MATRIX SPIKE SAMPLE: 5115367

Parameter	Units	10715045010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	0.63J	100	104	103	70-130	
Cobalt, Dissolved	ug/L	4.7	100	108	103	70-130	

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REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1795452 WG2396638
Pace Project No.: 10715045

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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Minneapolis, MN 55414
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045002	**CH-CCR-MW72M-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045003	**CH-CCR-MW71A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045004	**CH-CCR-MW73A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045005	**CH-CCR-W314-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045006	**CH-CCR-MW74M-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045007	**CH-CCR-MW64A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045008	**CH-CCR-MW77A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045009	**CH-CCR-M43A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045010	**CH-CCR-W126R-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045002	**CH-CCR-MW72M-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045003	**CH-CCR-MW71A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045004	**CH-CCR-MW73A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045005	**CH-CCR-W314-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045006	**CH-CCR-MW74M-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045007	**CH-CCR-MW64A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045008	**CH-CCR-MW77A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045009	**CH-CCR-M43A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045010	**CH-CCR-W126R-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045002	**CH-CCR-MW72M-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045003	**CH-CCR-MW71A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045004	**CH-CCR-MW73A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045005	**CH-CCR-W314-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045006	**CH-CCR-MW74M-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045007	**CH-CCR-MW64A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045008	**CH-CCR-MW77A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045009	**CH-CCR-M43A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045010	**CH-CCR-W126R-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045002	**CH-CCR-MW72M-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045003	**CH-CCR-MW71A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045004	**CH-CCR-MW73A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045005	**CH-CCR-W314-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045006	**CH-CCR-MW74M-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045007	**CH-CCR-MW64A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045008	**CH-CCR-MW77A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045009	**CH-CCR-M43A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045010	**CH-CCR-W126R-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045002	**CH-CCR-MW72M-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045003	**CH-CCR-MW71A-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045004	**CH-CCR-MW73A-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045005	**CH-CCR-W314-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045006	**CH-CCR-MW74M-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045007	**CH-CCR-MW64A-1024**	EPA 245.1	978852	EPA 245.1	979164

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10715045008	**CH-CCR-MW77A-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045009	**CH-CCR-M43A-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045010	**CH-CCR-W126R-1024**	EPA 245.1	978852	EPA 245.1	979164

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Sub-Contract Chain of Custody

Batch Date/Time: 11/06/24 13:21
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2396638
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 11/15/24
ESC Purchase Order #: L1795452
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

WO# : 10715045

10715045

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only
CH-CCR-BUDHUNT-1024 250mlHDPE-HNO3 - 49912525 250mlHDPE-HNO3 - 49912526 250mlHDPE-HNO3 - 49912527 250mlHDPE-HNO3 - 49912528	WW	AZ	10/29/24 10:17	Metals	1. L1795452-01	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 001
CH-CCR-MW72M-1024 250mlHDPE-HNO3 - 49912535 250mlHDPE-HNO3 - 49912536 250mlHDPE-HNO3 - 49912537 250mlHDPE-HNO3 - 49912538	WW	AZ	10/29/24 11:42	Metals	2. L1795452-02	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 002
CH-CCR-MW71A-1024 250mlHDPE-HNO3 - 49912545 250mlHDPE-HNO3 - 49912546 250mlHDPE-HNO3 - 49912547 250mlHDPE-HNO3 - 49912548	WW	AZ	10/29/24 15:02	Metals	3. L1795452-03	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 003
CH-CCR-MW73A-1024 250mlHDPE-HNO3 - 49912555 250mlHDPE-HNO3 - 49912556 250mlHDPE-HNO3 - 49912557 250mlHDPE-HNO3 - 49912558	WW	AZ	10/29/24 16:12	Metals	4. L1795452-04	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 004
CH-CCR-W314-1024 250mlHDPE-HNO3 - 49912565 250mlHDPE-HNO3 - 49912566 250mlHDPE-HNO3 - 49912567 250mlHDPE-HNO3 - 49912568	WW	AZ	10/30/24 10:03	Metals	5. L1795452-05	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 005
CH-CCR-MW74M-1024 250mlHDPE-HNO3 - 49912575 250mlHDPE-HNO3 - 49912576 250mlHDPE-HNO3 - 49912577 250mlHDPE-	WW	AZ	10/30/24 12:27	Metals	6. L1795452-06	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 006

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only
HNO3 - 49912578						
CH-CCR-MW64A-1024 250mlHDPE-HNO3 - 49912585 250mlHDPE-HNO3 - 49912586 250mlHDPE-HNO3 - 49912587 250mlHDPE-HNO3 - 49912588	WW	AZ	10/30/24 15:48	Metals	7. L1795452-07	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 007
CH-CCR-MW77A-1024 250mlHDPE-HNO3 - 49912596 250mlHDPE-HNO3 - 49912597 250mlHDPE-HNO3 - 49912598 250mlHDPE-HNO3 - 49912599	WW	AZ	10/30/24 17:05	Metals	8. L1795452-08	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 008
CH-CCR-M43A-1024 250mlHDPE-HNO3 - 49912606 250mlHDPE-HNO3 - 49912607 250mlHDPE-HNO3 - 49912608 250mlHDPE-HNO3 - 49912609	WW	AZ	10/31/24 10:23	Metals	9. L1795452-09	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 009
CH-CCR-W126R-1024 250mlHDPE-HNO3 - 49912616 250mlHDPE-HNO3 - 49912617 250mlHDPE-HNO3 - 49912618 250mlHDPE-HNO3 - 49912619	WW	AZ	10/31/24 14:03	Metals	10. L1795452-10	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 010

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ **Date** 11-6-24

Received by: Pace **Date** 11-8-24 10:00

Relinquished by: _____ **Date** _____

Received by: _____ **Date** _____

NO ICE

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTJL **PROJECT #:** **WO#: 10715045**

PM: TKL **Due Date: 11/22/24**

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: _____ ☑ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: +0.1 **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C *NOTE: Temp should be above freezing to 6°C.*	**Average Corrected Temp (no Temp Blank Only):** ~~15~~ °C EC 11-8-24 (15.2) / 15.9 ☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – (Water) Sample/Other (describe): _____ Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	**Initials & Date of Person Examining Contents:** EC 11-8-24 Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☑	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☑	☐		6. 11-15-24
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☑	☐ ☐	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☑	☐	☐	10. Is sediment visible in the dissolved container: ☐ YES ☑ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		**11. If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☑	☐	☐	12. Sample #: 001–010
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☑	☐	☐	4/4 ☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #**

Residual Chlorine	0-6 Roll	0-6 Strip	0-14 Strip
	205224		

☐ See Exceptions form ENV-FRM-MIN4-0142

Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: Anchea Richardson **Date:** 11/8/24

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: EC **Line:** 2

Workorder #: 10715045

No Temp Blank					
Read Temp		Corrected Temp		Average temp	
16.1	15.7	16.2	15.8	15.7	15.9
15.5	15.6	15.6	15.7		
15.3	15.7	15.4	15.8		
15.5	16.2	15.6	16.3		

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO
If yes, indicate who was contacted, date and time. If no, indicate reason why.
Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature
425709278839	15.7
425709278828	15.9

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples										
Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition? YES	In Compliance After Addition? NO	Initials
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:

ANALYTICAL REPORT

December 13, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

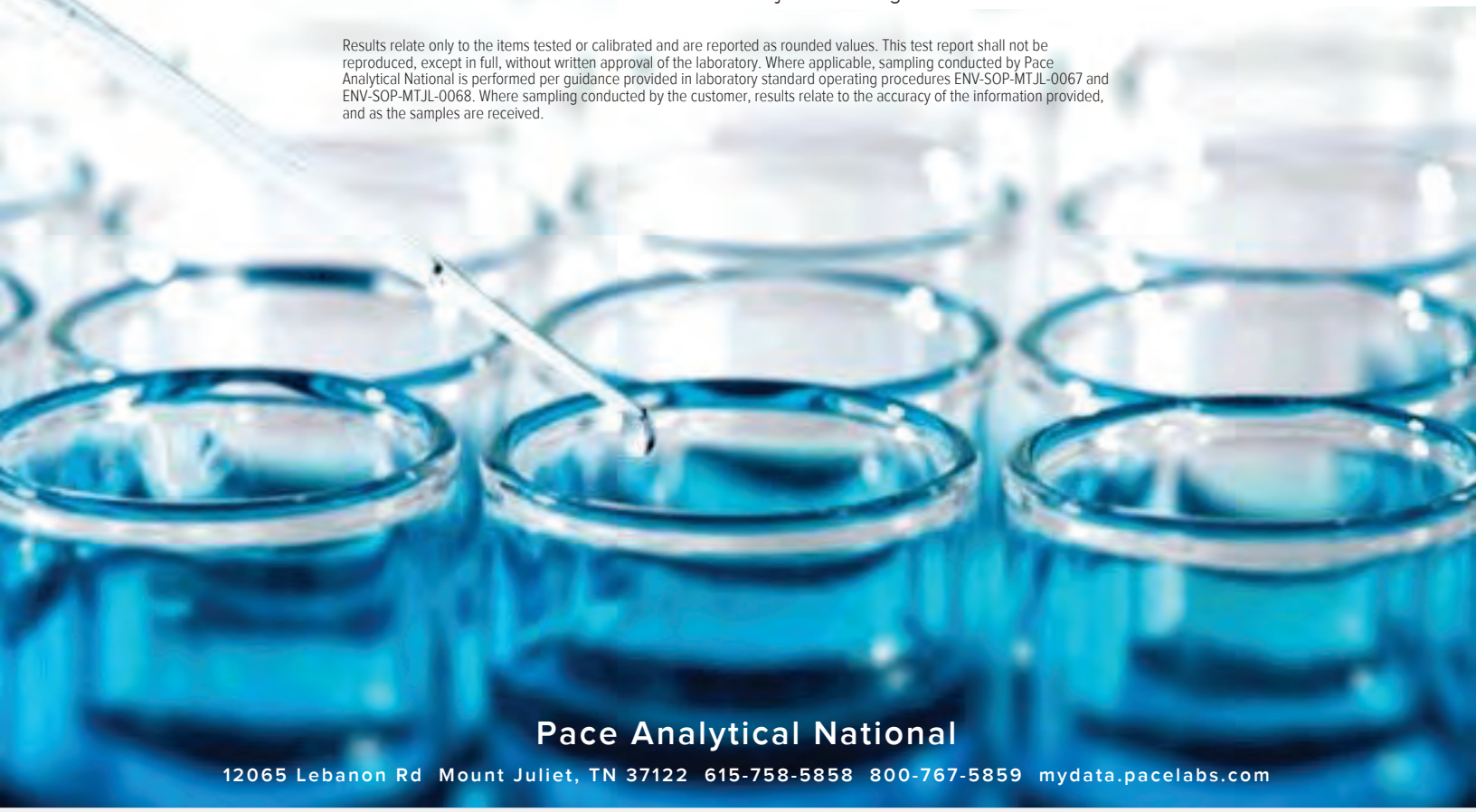
Sample Delivery Group:	L1800186
Samples Received:	11/15/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-CCR-M44D-1024 L1800186-01 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 15:02 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	1	11/22/24 07:19	11/22/24 07:19	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	10	11/22/24 08:11	11/22/24 08:11	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402750	1	11/15/24 21:45	11/15/24 21:45	BRT	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M54-1024 L1800186-02 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 16:37 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	20	11/22/24 08:46	11/22/24 08:46	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	5	11/22/24 08:29	11/22/24 08:29	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402751	1	11/16/24 16:20	11/16/24 16:20	KRB	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CH-CCR-W305-1024 L1800186-03 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 17:22 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404160	1	11/19/24 10:37	11/19/24 10:37	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	100	11/22/24 09:21	11/22/24 09:21	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	5	11/22/24 09:03	11/22/24 09:03	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2403372	1	11/17/24 19:04	11/17/24 19:04	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2403942	1	11/18/24 22:52	11/18/24 22:52	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402750	1	11/15/24 21:45	11/15/24 21:45	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2401035	1	11/16/24 08:00	11/16/24 13:33	AF	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CH-CCR-MW79A-1024 L1800186-04 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 18:10 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404889	1	11/20/24 10:41	11/20/24 10:41	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	100	11/22/24 09:56	11/22/24 09:56	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	5	11/22/24 09:38	11/22/24 09:38	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2403372	1	11/17/24 19:06	11/17/24 19:06	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2403942	1	11/18/24 22:53	11/18/24 22:53	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2401035	1	11/16/24 08:00	11/16/24 14:10	AF	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Project Narrative

L1800186 -01, -02, -03, -04 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2300		50.0	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1110		5.47	10.0	10	11/22/2024 08:11	WG2402892
Fluoride	0.717		0.0761	0.150	1	11/22/2024 07:19	WG2402892
Sulfate	309		6.37	50.0	10	11/22/2024 08:11	WG2402892

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.53	H3	1	11/15/2024 21:45	WG2402750

Sample Narrative:

L1800186-01 WG2402750: 7.53 at 18.2C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3140		100	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1500		10.9	20.0	20	11/22/2024 08:46	WG2402892
Fluoride	1.35		0.380	0.750	5	11/22/2024 08:29	WG2402892
Sulfate	377		3.18	25.0	5	11/22/2024 08:29	WG2402892

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.03	H3	1	11/16/2024 16:20	WG2402751

Sample Narrative:

L1800186-02 WG2402751: 8.03 at 18.8C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	7280		200	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	103		4.75	20.0	1	11/19/2024 10:37	WG2404160

Sample Narrative:
L1800186-03 WG2404160: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2340		54.7	100	100	11/22/2024 09:21	WG2402892
Fluoride	0.510	E4	0.380	0.750	5	11/22/2024 09:03	WG2402892
Sulfate	2350		63.7	500	100	11/22/2024 09:21	WG2402892

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	0.104		0.0539	0.100	1	11/17/2024 19:04	WG2403372

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0435	0.200	1	11/18/2024 22:52	WG2403942

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.49	H3	1	11/15/2024 21:45	WG2402750

Sample Narrative:
L1800186-03 WG2402750: 7.49 at 18C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	2.40	H3	0.106	1.00	1	11/16/2024 13:33	WG2401035

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	7460		200	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	124		4.75	20.0	1	11/20/2024 10:41	WG2404889

Sample Narrative:
L1800186-04 WG2404889: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2440		54.7	100	100	11/22/2024 09:56	WG2402892
Fluoride	0.697	E4	0.380	0.750	5	11/22/2024 09:38	WG2402892
Sulfate	2390		63.7	500	100	11/22/2024 09:56	WG2402892

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	U		0.0539	0.100	1	11/17/2024 19:06	WG2403372

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0435	0.200	1	11/18/2024 22:53	WG2403942

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.34	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:
L1800186-04 WG2403119: 7.34 at 20.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	1.68	B1 H3	0.106	1.00	1	11/16/2024 14:10	WG2401035

Method Blank (MB)

(MB) R4147670-1 11/17/24 12:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1799799-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1799799-15 11/17/24 12:24 • (DUP) R4147670-3 11/17/24 12:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1630	1690	1	3.32		10

L1800186-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-04 11/17/24 12:24 • (DUP) R4147670-4 11/17/24 12:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	7460	7480	1	0.268		10

Laboratory Control Sample (LCS)

(LCS) R4147670-2 11/17/24 12:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8740	99.3	85.0-115	

Method Blank (MB)

(MB) R4147883-2 11/19/24 09:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Bicarbonate	U		4.75	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1799027-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799027-01 11/19/24 09:29 • (DUP) R4147883-3 11/19/24 09:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	109	110	1	0.963		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1800977-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-04 11/19/24 11:29 • (DUP) R4147883-4 11/19/24 11:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	500	510	1	2.00		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148557-2 11/20/24 10:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Bicarbonate	U		4.75	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800186-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-04 11/20/24 10:41 • (DUP) R4148557-3 11/20/24 10:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	124	126	1	1.10		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1801469-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1801469-06 11/20/24 12:52 • (DUP) R4148557-4 11/20/24 12:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	248	250	1	0.956		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4149387-1 11/21/24 23:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1800107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800107-01 11/21/24 23:46 • (DUP) R4149387-3 11/22/24 00:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	13.2	13.0	1	1.69		15
Sulfate	32.6	32.7	1	0.410		15

L1800133-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800133-01 11/22/24 00:56 • (DUP) R4149387-6 11/22/24 01:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.07	0.973	1	9.12	E4	15
Fluoride	U	U	1	0.000		15
Sulfate	1.18	1.21	1	1.81	E4	15

Laboratory Control Sample (LCS)

(LCS) R4149387-2 11/21/24 23:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.4	101	90.0-110	
Fluoride	8.00	8.21	103	90.0-110	
Sulfate	40.0	41.8	104	90.0-110	

L1800107-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800107-01 11/21/24 23:46 • (MS) R4149387-4 11/22/24 00:21 • (MSD) R4149387-5 11/22/24 00:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	13.2	52.2	52.1	97.4	97.1	1	90.0-110			0.206	15
Sulfate	40.0	32.6	68.6	69.1	90.1	91.3	1	90.0-110			0.673	15

L1800133-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800133-01 11/22/24 00:56 • (MS) R4149387-7 11/22/24 01:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	1.07	41.8	102	1	90.0-110	
Fluoride	8.00	U	8.30	104	1	90.0-110	
Sulfate	40.0	1.18	42.6	104	1	90.0-110	

Method Blank (MB)

(MB) R4147080-1 11/17/24 18:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ammonia Nitrogen	U		0.0539	0.100

L1800102-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800102-01 11/17/24 18:40 • (DUP) R4147080-3 11/17/24 18:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	U	U	1	0.000		10

L1800107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800107-01 11/17/24 18:54 • (DUP) R4147080-6 11/17/24 18:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	0.0940	0.0760	1	21.2	E4 R8	10

Laboratory Control Sample (LCS)

(LCS) R4147080-2 11/17/24 18:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	7.50	7.27	97.0	90.0-110	

L1800102-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800102-01 11/17/24 18:40 • (MS) R4147080-4 11/17/24 18:43 • (MSD) R4147080-5 11/17/24 18:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	U	4.79	4.77	95.8	95.4	1	90.0-110			0.418	10

L1800107-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800107-01 11/17/24 18:54 • (MS) R4147080-7 11/17/24 18:57 • (MSD) R4147080-8 11/17/24 18:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	0.0940	5.09	4.94	99.8	96.8	1	90.0-110			2.99	10

Method Blank (MB)

(MB) R4147506-1 11/18/24 22:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0435	0.200

L1797996-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797996-01 11/18/24 22:30 • (DUP) R4147506-3 11/18/24 22:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1800080-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800080-01 11/18/24 22:37 • (DUP) R4147506-6 11/18/24 22:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4147506-2 11/18/24 22:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.52	101	90.0-110	

L1797996-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797996-01 11/18/24 22:30 • (MS) R4147506-4 11/18/24 22:33 • (MSD) R4147506-5 11/18/24 22:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.52	2.41	101	96.4	1	90.0-110			4.46	20

L1800080-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800080-01 11/18/24 22:37 • (MS) R4147506-7 11/18/24 22:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.43	97.2	1	90.0-110	

L1800057-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800057-02 11/15/24 21:45 • (DUP) R4146737-2 11/15/24 21:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.70	5.69	1	0.176		1

Sample Narrative:

OS: 5.7 at 18.7C

DUP: 5.69 at 18.6C

L1800309-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1800309-05 11/15/24 21:45 • (DUP) R4146737-3 11/15/24 21:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.83	6.83	1	0.000		1

Sample Narrative:

OS: 6.83 at 19.8C

DUP: 6.83 at 19.7C

Laboratory Control Sample (LCS)

(LCS) R4146737-1 11/15/24 21:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.02 at 19.7C

L1799375-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799375-01 11/16/24 16:20 • (DUP) R4146899-2 11/16/24 16:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.04	7.06	1	0.284		1

Sample Narrative:

OS: 7.04 at 19.2C

DUP: 7.06 at 19.1C

L1800197-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800197-01 11/16/24 16:20 • (DUP) R4146899-3 11/16/24 16:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.64	7.64	1	0.000		1

Sample Narrative:

OS: 7.64 at 19C

DUP: 7.64 at 19C

Laboratory Control Sample (LCS)

(LCS) R4146899-1 11/16/24 16:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 19.7C

L1800091-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800091-01 11/18/24 11:40 • (DUP) R4147236-2 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.66	7.67	1	0.130		1

Sample Narrative:

OS: 7.66 at 19.6C

DUP: 7.67 at 19.9C

L1800923-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800923-04 11/18/24 11:40 • (DUP) R4147236-3 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.33	8.32	1	0.120		1

Sample Narrative:

OS: 8.33 at 19.7C

DUP: 8.32 at 19.9C

Laboratory Control Sample (LCS)

(LCS) R4147236-1 11/18/24 11:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 20C

Method Blank (MB)

(MB) R4147321-2 11/16/24 10:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
DOC	0.170	E4	0.106	1.00

L1800186-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-03 11/16/24 13:33 • (DUP) R4147321-5 11/16/24 13:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	2.40	2.28	1	4.74		20

Laboratory Control Sample (LCS)

(LCS) R4147321-1 11/16/24 10:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
DOC	25.0	24.0	96.0	85.0-115	

L1800186-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800186-04 11/16/24 14:10 • (MS) R4147321-6 11/16/24 15:20 • (MSD) R4147321-7 11/16/24 15:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25.0	1.68	26.5	26.5	99.2	99.1	1	80.0-120			0.151	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
R8	Sample RPD exceeded the method acceptance limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

~~Wood~~ WSP
4600 E. Washington St
Suite 600
Phoenix, AZ 85034

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: ~~Jeff~~ Samantha O'Shea

Email To: samantha.oshea@wsp.com; natalie.chrismalaz

Project Description: APS - Cholla

City/State Collected: Joseph City, AZ

Phone: 602-733-6110
Fax:

Client Project #

Lab Project # AMECTAZ-APS Cholla

Collected by (print): Nicolas Garnand

Site/Facility ID #

P.O. #

Collected by (signature): Nicolas Garnand

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # 00097019

Date Results Needed

L# L1800186

Tal C160

Acctnum: AMECTAZ
Template: T259142
Prelogin: p1097829
TSR: Daphne Richards
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CL, Fl, SO4, pH	TDS	200.7	200.7 Field filter - Diss Fe, Diss Mn	200.8	200.8 Field filter -Diss As, Diss Co	TOC - 5M5310B	DOC -SM5310B - Field Filter	SM4500NH3G - NH3 as N	353.2 NO3+NO2 sN	Remarks	Sample # (lab only)
									<2	<2	<2	<2			<2	<2		
CH- CCR- M44D - 1024		WW		11/11/24	1502	4	X	X	X		X							-01
CH- CCR- M54- 1024		WW		11/11/24	1637	3	X	X	X									-02
CH- CCR- W305 1024		WW		11/11/24	1722	10	X	X	X	X	X	X		X	X	X		-03
CH- CCR- MW79A - 1024		WW		11/11/24	1810	10	X	X	X	X	X	X		X	X	X		-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____
Flow Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 4102 9171 9341

PH – 10BDH0941
TRC – 3327A333

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Nicolas Garnand	11/14/24	1653	[signature]		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
[signature]	11/14/24	1800	FedEx	TUR9 0.940=0.9 27	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK
			Ashley Barlett	11/15/2024 0900	

PNPAZ

~~Wood~~ WSP
4600 E. Washington St
Suite 600
Phoenix, AZ 85034

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

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12065 Lebanon Rd
Mount Juliet, TN 37122
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Report to: ~~Jeff~~ Samantha O'Shea

Email To: samantha.oshea@wsp.com; natalie.chrismalaz

Project Description: APS - Cholla

City/State Collected: Joseph City, AZ

Phone: 602-733-6110
Fax:

Client Project #

Lab Project # AMECTAZ - APSCHOLLA

L# L1800180

Table #

Collected by (print): Nicolas Garnand

Site/Facility ID #

P.O. #

Acctnum: AMECTAZ

Template: T259142

Prelogin: p1097829

TSR: Daphne Richards

PB:

Collected by (signature): Nicolas Garnand

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # 00097019

Date Results Needed

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SM2320B - CO3, Alkalinity as CaCO3	SM2320B - HCo3 Alkalinity as CaCO3	245.1 Hg, included in 200.7 unfiltered	Remarks	Sample # (lab only)
CH- CCR- M44D - 1024		WW		11/11/24	1502	4					-01
CH- CCR- M54- 1024		WW		11/11/24	1637	3					-02
CH- CCR- W305 1024		WW		11/11/24	1722	10		X			-03
CH- CCR- MW79A - 1024		WW		11/11/24	1810	10		X			-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: Y __N
Preservation Correct/Checked: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Garnand	11/14/24	1653	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/14/24	1800	Fed Ex
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Ashley Baxter

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:
TEMP 0.9+0=0.9 27

Date: 11/15/2024 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPAZ

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 12, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 19, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on December 12, 2024, to add method 245.1 to Pace sample 10716159-003 and -004.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10716159001	**CH-CCR-M44D-1024**	Water	11/11/24 15:02	11/19/24 09:00
10716159002	**CH-CCR-M54-1024**	Water	11/11/24 16:37	11/19/24 09:00
10716159003	**CH-CCR-W305-1024**	Water	11/11/24 17:22	11/19/24 09:00
10716159004	**CH-CCR-MW79A-1024**	Water	11/11/24 18:10	11/19/24 09:00

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10716159001	**CH-CCR-M44D-1024**	EPA 200.7	IP	4	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716159002	**CH-CCR-M54-1024**	EPA 200.7	IP	2	PASI-M
10716159003	**CH-CCR-W305-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.7	DM	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716159004	**CH-CCR-MW79A-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.7	DM	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-M44D-1024 **Lab ID: 10716159001** Collected: 11/11/24 15:02 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:19	7440-41-7	
Boron	**238**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:19	7440-42-8	
Calcium	**77200**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:19	7440-70-2	
Magnesium	**46100**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:19	7439-95-4	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:33	7440-36-0	D3
Arsenic	**0.76J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:33	7440-38-2	D3
Barium	**19.3**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:33	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:33	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:33	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:33	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:33	7439-92-1	D3
Lithium	**39.1**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:33	7439-93-2	
Molybdenum	**2.2J**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:33	7439-98-7	D3
Selenium	**0.66J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:33	7782-49-2	D3
Thallium	**0.28J**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:33	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/02/24 06:17	12/03/24 10:54	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-M54-1024 **Lab ID: 10716159002** Collected: 11/11/24 16:37 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**522**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:24	7440-42-8	
Calcium	**90400**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:24	7440-70-2	

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ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-W305-1024 **Lab ID: 10716159003** Collected: 11/11/24 17:22 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:26	7440-41-7	
Boron	**464**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:26	7440-42-8	
Calcium	**632000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:26	7440-70-2	
Iron	**247**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:26	7439-89-6	
Magnesium	**112000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:26	7439-95-4	
Manganese	**5380**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:26	7439-96-5	
Potassium	**4600**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:26	7440-09-7	
Sodium	**1510000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:12	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**208**	ug/L	50.0	7.5	1	11/27/24 11:02	12/02/24 12:33	7439-89-6	
Manganese, Dissolved	**5270**	ug/L	5.0	0.50	1	11/27/24 11:02	12/02/24 12:33	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:47	7440-36-0	D3
Arsenic	**0.84J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:47	7440-38-2	D3
Barium	**10.6**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:47	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:47	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:47	7440-47-3	D3
Cobalt	**14.4**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:47	7440-48-4	
Lead	**1.3J**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:47	7439-92-1	D3
Lithium	**190**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:47	7439-93-2	
Molybdenum	**19.9**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:47	7439-98-7	
Selenium	**0.54J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:47	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:47	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.66**	ug/L	2.5	0.66	5	11/27/24 11:02	12/02/24 23:35	7440-38-2	D3
Cobalt, Dissolved	**14.8**	ug/L	2.5	0.20	5	11/27/24 11:02	12/03/24 16:53	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/09/24 05:48	12/09/24 11:07	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-MW79A-1024 **Lab ID: 10716159004** Collected: 11/11/24 18:10 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:27	7440-41-7	
Boron	**363**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:27	7440-42-8	
Calcium	**688000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:27	7440-70-2	
Iron	**90.9**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:27	7439-89-6	
Magnesium	**93300**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:27	7439-95-4	
Manganese	**4060**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:27	7439-96-5	
Potassium	**13700**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:27	7440-09-7	
Sodium	**1640000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:14	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**17.4J**	ug/L	50.0	7.5	1	11/27/24 11:02	12/02/24 12:38	7439-89-6	
Manganese, Dissolved	**3980**	ug/L	5.0	0.50	1	11/27/24 11:02	12/02/24 12:38	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:50	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:50	7440-38-2	D3
Barium	**11.1**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:50	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:50	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:50	7440-47-3	D3
Cobalt	**10.6**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:50	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:50	7439-92-1	D3
Lithium	**138**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:50	7439-93-2	
Molybdenum	**13.9**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:50	7439-98-7	
Selenium	**0.58J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:50	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:50	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.66**	ug/L	2.5	0.66	5	11/27/24 11:02	12/02/24 23:40	7440-38-2	D3
Cobalt, Dissolved	**10.4**	ug/L	2.5	0.20	5	11/27/24 11:02	12/03/24 16:57	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/09/24 05:48	12/09/24 11:11	7439-97-6	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 982136
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159001

METHOD BLANK: 5131961 Matrix: Water
Associated Lab Samples: 10716159001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	12/03/24 10:51	

LABORATORY CONTROL SAMPLE: 5131962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5131963 5131964

Parameter	Units	10716376003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.8	4.6	97	92	70-130	5	20	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 983405
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159003, 10716159004

METHOD BLANK: 5137795 Matrix: Water
Associated Lab Samples: 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	12/09/24 11:04	

LABORATORY CONTROL SAMPLE: 5137796

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5137797 5137798

Parameter	Units	10716159003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	5.0	4.8	99	95	70-130	4	20	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981154
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159001, 10716159002, 10716159003, 10716159004

METHOD BLANK: 5126332 Matrix: Water
Associated Lab Samples: 10716159001, 10716159002, 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/26/24 15:16	
Boron	ug/L	<16.0	150	16.0	11/26/24 15:16	
Calcium	ug/L	<31.8	500	31.8	11/26/24 15:16	
Iron	ug/L	<7.5	50.0	7.5	11/26/24 15:16	
Magnesium	ug/L	<28.9	500	28.9	11/26/24 15:16	
Manganese	ug/L	<0.50	5.0	0.50	11/26/24 15:16	
Potassium	ug/L	<108	2500	108	11/26/24 15:16	
Sodium	ug/L	504J	1000	45.4	11/26/24 15:16	P8

LABORATORY CONTROL SAMPLE: 5126333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1030	103	85-115	
Boron	ug/L	1000	1040	104	85-115	
Calcium	ug/L	20000	19400	97	85-115	
Iron	ug/L	20000	20100	101	85-115	
Magnesium	ug/L	20000	19500	97	85-115	
Manganese	ug/L	1000	1030	103	85-115	
Potassium	ug/L	20000	20100	100	85-115	
Sodium	ug/L	20000	19900	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5126334 5126335

Parameter	Units	10716159001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1010	1050	101	105	70-130	3	20	
Boron	ug/L	238	1000	1000	1260	1300	102	106	70-130	3	20	
Calcium	ug/L	77200	20000	20000	93400	95500	81	92	70-130	2	20	
Iron	ug/L		20000	20000	34500	35300	92	96	70-130	2	20	
Magnesium	ug/L	46100	20000	20000	64400	65700	92	98	70-130	2	20	
Manganese	ug/L		1000	1000	1290	1320	97	101	70-130	3	20	
Potassium	ug/L		20000	20000	28400	29100	116	120	70-130	3	20	
Sodium	ug/L		20000	20000	792000	787000	104	79	70-130	1	20	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

MATRIX SPIKE SAMPLE: 5126336

Parameter	Units	10716376024 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	1050	105	70-130	
Boron	ug/L	3670	1000	4690	102	70-130	
Calcium	ug/L	490000	20000	499000	45	70-130	P6
Iron	ug/L	207	20000	19600	97	70-130	
Magnesium	ug/L	263000	20000	279000	78	70-130	
Manganese	ug/L	130	1000	1130	100	70-130	
Potassium	ug/L	31000	20000	54300	116	70-130	
Sodium	ug/L	1460000	20000	1320000	-734	70-130	P6

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981791
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159003, 10716159004

METHOD BLANK: 5129739 Matrix: Water
Associated Lab Samples: 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<7.5	50.0	7.5	12/02/24 12:02	
Manganese, Dissolved	ug/L	<0.50	5.0	0.50	12/02/24 12:02	

LABORATORY CONTROL SAMPLE: 5129740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	20000	19100	96	85-115	
Manganese, Dissolved	ug/L	1000	982	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5129741 5129742

Parameter	Units	10714271001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	10.7J	20000	20000	19500	19300	97	97	70-130	1	20	
Manganese, Dissolved	ug/L	27.6	1000	1000	1030	1030	100	100	70-130	1	20	

MATRIX SPIKE SAMPLE: 5129743

Parameter	Units	10714271011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	<7.5	20000	19000	95	70-130	
Manganese, Dissolved	ug/L	23.2	1000	994	97	70-130	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981500
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159001, 10716159003, 10716159004

METHOD BLANK: 5128271 Matrix: Water
Associated Lab Samples: 10716159001, 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/27/24 09:27	
Arsenic	ug/L	<0.12	0.50	0.12	11/27/24 09:27	
Barium	ug/L	<0.070	0.30	0.070	11/27/24 09:27	
Cadmium	ug/L	<0.030	0.080	0.030	11/27/24 09:27	
Chromium	ug/L	<0.54	2.0	0.54	11/27/24 09:27	
Cobalt	ug/L	<0.095	0.50	0.095	11/27/24 09:27	
Lead	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Lithium	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Molybdenum	ug/L	<0.13	0.50	0.13	11/27/24 09:27	
Selenium	ug/L	<0.074	0.50	0.074	11/27/24 09:27	
Thallium	ug/L	<0.026	0.10	0.026	11/27/24 09:27	

LABORATORY CONTROL SAMPLE: 5128272

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	104	104	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	105	105	85-115	
Cadmium	ug/L	100	102	102	85-115	
Chromium	ug/L	100	110	110	85-115	
Cobalt	ug/L	100	109	109	85-115	
Lead	ug/L	100	107	107	85-115	
Lithium	ug/L	100	106	106	85-115	
Molybdenum	ug/L	100	98.9	99	85-115	
Selenium	ug/L	100	106	106	85-115	
Thallium	ug/L	100	107	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	100	100	102	101	102	101	70-130	1	20	
Arsenic	ug/L	8.3	100	100	115	111	107	103	70-130	3	20	
Barium	ug/L	26.9	100	100	125	126	98	99	70-130	1	20	
Cadmium	ug/L	ND	100	100	99.6	98.9	100	99	70-130	1	20	
Chromium	ug/L	ND	100	100	109	108	107	106	70-130	1	20	
Cobalt	ug/L	ND	100	100	103	101	102	101	70-130	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	100	100	104	102	104	102	70-130	2	20	
Lithium	ug/L	47.0	100	100	159	147	112	100	70-130	8	20	
Molybdenum	ug/L	5.7	100	100	106	105	100	99	70-130	1	20	
Selenium	ug/L	ND	100	100	108	100	108	100	70-130	8	20	
Thallium	ug/L	ND	100	100	102	101	102	101	70-130	1	20	

MATRIX SPIKE SAMPLE: 5128275

Parameter	Units	10716376023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.44	100	100	100	70-130	
Arsenic	ug/L	1.0J	100	108	107	70-130	
Barium	ug/L	8.8	100	109	100	70-130	
Cadmium	ug/L	0.34J	100	97.3	97	70-130	
Chromium	ug/L	<2.7	100	109	106	70-130	
Cobalt	ug/L	7.2	100	110	103	70-130	
Lead	ug/L	<0.90	100	104	104	70-130	
Lithium	ug/L	182	100	274	92	70-130	
Molybdenum	ug/L	32.3	100	134	101	70-130	
Selenium	ug/L	0.80J	100	102	101	70-130	
Thallium	ug/L	<0.13	100	104	104	70-130	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981801
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159003, 10716159004

METHOD BLANK: 5129790 Matrix: Water
Associated Lab Samples: 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<0.13	0.50	0.13	12/02/24 22:12	
Cobalt, Dissolved	ug/L	<0.040	0.50	0.040	12/02/24 22:12	

LABORATORY CONTROL SAMPLE: 5129791

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	103	103	85-115	
Cobalt, Dissolved	ug/L	100	110	110	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5129792 5129793

Parameter	Units	10714271002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	<0.66	100	100	105	108	104	107	70-130	2	20	
Cobalt, Dissolved	ug/L	1.5J	100	100	107	110	105	108	70-130	3	20	

MATRIX SPIKE SAMPLE: 5129794

Parameter	Units	10714271012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	<0.66	100	108	108	70-130	
Cobalt, Dissolved	ug/L	13.4	100	118	105	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
P8	Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10716159001	**CH-CCR-M44D-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159002	**CH-CCR-M54-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159003	**CH-CCR-W305-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159004	**CH-CCR-MW79A-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159003	**CH-CCR-W305-1024**	EPA 200.7	981791	EPA 200.7	982202
10716159004	**CH-CCR-MW79A-1024**	EPA 200.7	981791	EPA 200.7	982202
10716159001	**CH-CCR-M44D-1024**	EPA 200.8	981500	EPA 200.8	981756
10716159003	**CH-CCR-W305-1024**	EPA 200.8	981500	EPA 200.8	981756
10716159004	**CH-CCR-MW79A-1024**	EPA 200.8	981500	EPA 200.8	981756
10716159003	**CH-CCR-W305-1024**	EPA 200.8	981801	EPA 200.8	982182
10716159004	**CH-CCR-MW79A-1024**	EPA 200.8	981801	EPA 200.8	982182
10716159001	**CH-CCR-M44D-1024**	EPA 245.1	982136	EPA 245.1	982326
10716159003	**CH-CCR-W305-1024**	EPA 245.1	983405	EPA 245.1	983486
10716159004	**CH-CCR-MW79A-1024**	EPA 245.1	983405	EPA 245.1	983486

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Sub-Contract Chain of Custody

Batch Date/Time: 11/18/24 10:43
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2403708
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 11/29/24
ESC Purchase Order #: L1800186
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only	
CH-CCR-M44D-1024	WW	AZ	11/11/24 15:02	Metals	1. L1800186-01	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	001
CH-CCR-M54-1024	WW	AZ	11/11/24 16:37	Metals	2. L1800186-02	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	002
CH-CCR-W305-1024	WW	AZ	11/11/24 17:22	Metals	3. L1800186-03	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	003
CH-CCR-MW79A-1024	WW	AZ	11/11/24 18:10	Metals	4. L1800186-04	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	004

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ Date 11-18-24

Received by: M/Pace Date 11/19/24 9:00

Relinquished by: _____ Date _____

Received by: _____ Date _____

T4 1.8°C

WO#: 10716159

10716159

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTJL PROJECT #:

WO#: 10716159

PM: TKL Due Date: 12/05/24

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 425709333148 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO Seals Intact: ☑ YES ☐ NO Biological Tissue Frozen: ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other Temp Blank: ☑ YES ☐ NO Type of Ice: ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☑ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	Were All Container Temps taken: ☐ YES ☐ NO ☑ N/A
Correction Factor: 1.0 Cooler Temp Read w/Temp Blank: 1.8 °C Cooler Temp Corrected w/Temp Blank: 1.8 °C	Average Corrected Temp (no Temp Blank Only): ____ °C
NOTE: Temp should be above freezing to 6°C.	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A Water Sample/Other (describe): ____	Initials & Date of Person Examining Contents: 11/19/24 JT1
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: ____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☑	☐ ☐	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☑	☐	☐	10. Is sediment visible in the dissolved container: ☐ YES ☑ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		**11. If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.	☑ ☑ ☐	☐ ☐ ☐	☐ ☐ ☑	12. Sample #: 001 2/2, 002 1/1, 003-004 4/4 ☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate Positive for Residual Chlorine: ☐ YES ☐ NO pH Paper Lot # (Residual Chlorine / 0-6 Roll: 205224 / 0-6 Strip / 0-14 Strip) ☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers? Headspace in VOA Vials (greater than 6mm)?	☐ ☐	☐ ☐	☑ ☑	14. ☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present? Trip Blank Custody Seals Present?	☐ ☐	☐ ☐	☑ ☑	15. Pace Trip Blank Lot # (if purchased): ____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: ____ Date & Time: ____

Comments / Resolution: ____

Project Manager Review: [signature] Date: 11/20/24

NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: JT1 Line: 2

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800186	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	29-Nov	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	**SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Metals	Residual Chlorine (Y/N)	
1	CH-CCR-M44D-1024	WT				11-Nov	15:02		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
2	CH-CCR-M54-1024	WT				11-Nov	16:37		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
3	CH-CCR-W305-1024	WT				11-Nov	17:22		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
4	CH-CCR-MW79A-1024	WT				11-Nov	18:10		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	18-Nov	10:48				
Pace Analytical Batch: WG2403708							
Pace Analytical SDGs: L1800186							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	**DATE Signed:**				

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

ANALYTICAL REPORT

December 10, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

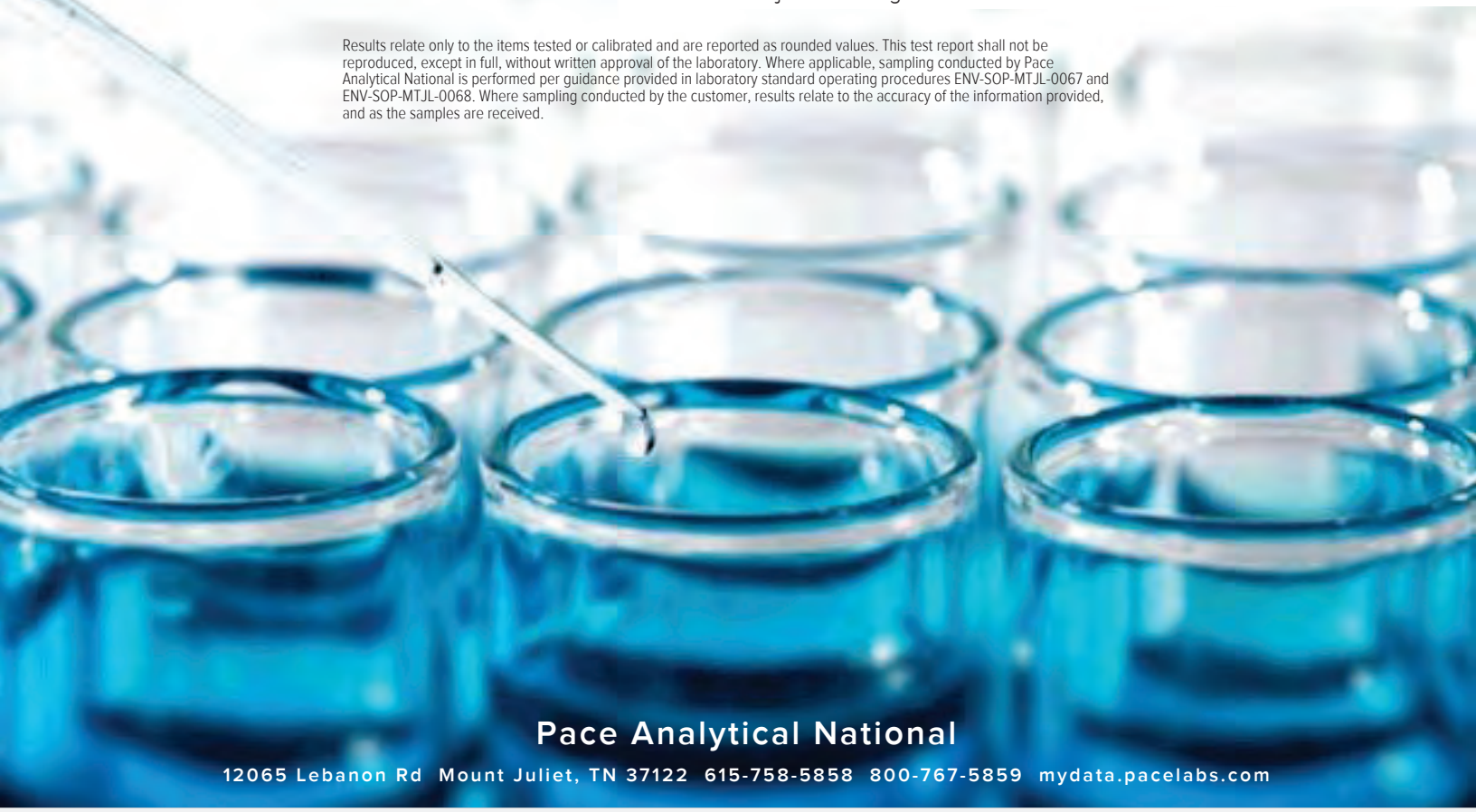
Sample Delivery Group:	L1800893
Samples Received:	11/16/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-CCR-M67A-1024 L1800893-01 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 12:37 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404842	1	11/20/24 07:34	11/20/24 07:34	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402063	5	11/18/24 23:20	11/18/24 23:20	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402063	50	11/19/24 00:14	11/19/24 00:14	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:18	11/19/24 14:18	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:39	11/21/24 18:39	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403128	1	11/16/24 22:00	11/16/24 22:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 17:33	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M46A-1024 L1800893-02 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 15:13 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403979	1	11/19/24 11:06	11/19/24 11:06	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 00:40	11/24/24 00:40	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 00:13	11/24/24 00:13	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:22	11/19/24 14:22	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:45	11/21/24 18:45	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2404741	1	11/20/24 14:01	11/20/24 14:01	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 17:51	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M65A-1024 L1800893-03 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 16:40 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404889	1	11/20/24 11:06	11/20/24 11:06	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 01:33	11/24/24 01:33	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 01:07	11/24/24 01:07	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:25	11/19/24 14:25	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:46	11/21/24 18:46	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 18:08	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-HUNTB-1024 L1800893-04 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 17:27 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403981	1	11/19/24 16:46	11/19/24 16:46	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 02:14	11/24/24 02:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 02:00	11/24/24 02:00	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:28	11/19/24 14:28	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:47	11/21/24 18:47	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403128	1	11/16/24 22:00	11/16/24 22:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 00:16	11/23/24 00:16	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 18:27	TMH	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-HUNTB-1024 L1800893-04 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 17:27 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-FAP-1024 L1800893-05 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 11:48 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403979	1	11/19/24 11:27	11/19/24 11:27	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	1000	11/24/24 02:41	11/24/24 02:41	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	2000	11/25/24 13:32	11/25/24 13:32	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	50	11/24/24 02:27	11/24/24 02:27	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	10	11/19/24 14:36	11/19/24 14:36	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	5	11/21/24 18:48	11/21/24 18:48	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2404741	1	11/20/24 14:01	11/20/24 14:01	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406951	5	11/23/24 10:26	11/23/24 10:26	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/20/24 00:08	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EW01-1024 L1800893-06 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 12:20 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404889	1	11/20/24 11:11	11/20/24 11:11	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 03:07	11/24/24 03:07	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 02:54	11/24/24 02:54	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:37	11/19/24 14:37	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:50	11/21/24 18:50	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 00:35	11/23/24 00:35	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 18:44	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EW02-1024 L1800893-07 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 12:42 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:38	11/18/24 15:38	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 04:01	11/24/24 04:01	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 03:48	11/24/24 03:48	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:39	11/19/24 14:39	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:51	11/21/24 18:51	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 00:54	11/23/24 00:54	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 19:02	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-GSX4-1024 L1800893-08 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 12:59 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:42	11/18/24 15:42	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 04:28	11/24/24 04:28	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 04:14	11/24/24 04:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:40	11/19/24 14:40	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:42	11/20/24 11:42	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 01:14	11/23/24 01:14	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 19:19	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EW03-1024 L1800893-09 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 13:17 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:47	11/18/24 15:47	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 04:55	11/24/24 04:55	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 04:41	11/24/24 04:41	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:42	11/19/24 14:42	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:47	11/20/24 11:47	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 01:34	11/23/24 01:34	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 19:37	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-GSX3-1024 L1800893-10 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 13:37 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:52	11/18/24 15:52	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 05:21	11/24/24 05:21	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 05:08	11/24/24 05:08	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:43	11/19/24 14:43	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:49	11/20/24 11:49	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 03:15	11/24/24 03:15	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 20:33	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-GSX1R-1024 L1800893-11 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 13:52 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:56	11/18/24 15:56	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 05:48	11/24/24 05:48	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 05:35	11/24/24 05:35	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:45	11/19/24 14:45	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:50	11/20/24 11:50	KMB	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-GSX1R-1024 L1800893-11 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 13:52 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 03:34	11/24/24 03:34	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 20:50	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EW04-1024 L1800893-12 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 14:12 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 16:22	11/18/24 16:22	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 06:42	11/24/24 06:42	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 06:29	11/24/24 06:29	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:46	11/19/24 14:46	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:55	11/20/24 11:55	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 03:52	11/24/24 03:52	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 21:08	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-PETRO-1024 L1800893-13 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 15:21 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404883	1	11/20/24 10:53	11/20/24 10:53	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 07:09	11/24/24 07:09	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 06:55	11/24/24 06:55	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:48	11/19/24 14:48	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:56	11/20/24 11:56	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 04:54	11/24/24 04:54	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 21:26	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TANNER-1024 L1800893-14 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 15:45 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404889	1	11/20/24 11:17	11/20/24 11:17	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 07:36	11/24/24 07:36	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 07:22	11/24/24 07:22	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:54	11/19/24 14:54	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:58	11/20/24 11:58	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 05:29	11/24/24 05:29	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 21:43	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-TWX3-1024 L1800893-15 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:04 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 16:28	11/18/24 16:28	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 08:02	11/24/24 08:02	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 07:49	11/24/24 07:49	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:55	11/19/24 14:55	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:59	11/20/24 11:59	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 05:52	11/24/24 05:52	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 22:00	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX4-1024 L1800893-16 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:20 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 16:33	11/18/24 16:33	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 08:29	11/24/24 08:29	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 08:16	11/24/24 08:16	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:57	11/19/24 14:57	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:00	11/20/24 12:00	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 06:15	11/24/24 06:15	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 22:17	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX5-1024 L1800893-17 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:38 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404842	1	11/20/24 07:19	11/20/24 07:19	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 09:24	11/24/24 09:24	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 09:11	11/24/24 09:11	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:58	11/19/24 14:58	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:01	11/20/24 12:01	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 06:33	11/24/24 06:33	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 22:34	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX6-1024 L1800893-18 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:46 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404842	1	11/20/24 07:40	11/20/24 07:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 09:51	11/24/24 09:51	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 09:38	11/24/24 09:38	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 15:00	11/19/24 15:00	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:03	11/20/24 12:03	KMB	Mt. Juliet, TN

CH-CCR-TWX6-1024 L1800893-18 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:46 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 06:51	11/24/24 06:51	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 22:51	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX7-1024 L1800893-19 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:55 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403981	1	11/19/24 16:49	11/19/24 16:49	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 10:18	11/24/24 10:18	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 10:05	11/24/24 10:05	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 15:01	11/19/24 15:01	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:04	11/20/24 12:04	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 07:08	11/24/24 07:08	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 23:09	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX8-1024 L1800893-20 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 17:10 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404883	1	11/20/24 10:59	11/20/24 10:59	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 10:45	11/24/24 10:45	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 10:32	11/24/24 10:32	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 15:03	11/19/24 15:03	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:05	11/20/24 12:05	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 08:05	11/24/24 08:05	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 12:43	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX9-1024 L1800893-21 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 17:20 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404603	1	11/20/24 07:42	11/20/24 07:42	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 11:12	11/24/24 11:12	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 10:58	11/24/24 10:58	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:32	11/19/24 15:32	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:06	11/20/24 12:06	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403128	1	11/16/24 22:00	11/16/24 22:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 09:07	11/24/24 09:07	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 13:47	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX10-1024 L1800893-22 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 17:33 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404842	1	11/20/24 07:46	11/20/24 07:46	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	100	11/22/24 23:45	11/22/24 23:45	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	5	11/22/24 23:32	11/22/24 23:32	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:36	11/19/24 15:36	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2406151	1	11/21/24 20:56	11/21/24 20:56	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403128	1	11/16/24 22:00	11/16/24 22:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 09:43	11/24/24 09:43	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 14:23	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-BAPTD-1024 L1800893-23 WW

Collected by: Nicolas Garnand | Collected date/time: 11/14/24 09:23 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403981	1	11/19/24 16:55	11/19/24 16:55	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	100	11/23/24 00:11	11/23/24 00:11	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	5	11/22/24 23:58	11/22/24 23:58	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:39	11/19/24 15:39	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2406151	1	11/21/24 20:58	11/21/24 20:58	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 10:01	11/24/24 10:01	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 14:41	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-BAP-1024 L1800893-24 WW

Collected by: Nicolas Garnand | Collected date/time: 11/14/24 09:53 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403981	1	11/19/24 17:00	11/19/24 17:00	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	100	11/23/24 00:36	11/23/24 00:36	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	5	11/23/24 00:24	11/23/24 00:24	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:41	11/19/24 15:41	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2406151	1	11/21/24 20:59	11/21/24 20:59	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 10:20	11/24/24 10:20	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 15:02	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EB01-1024 L1800893-25 WW

Collected by: Nicolas Garnand | Collected date/time: 11/14/24 10:40 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403985	1	11/19/24 13:41	11/19/24 13:41	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	1	11/23/24 00:49	11/23/24 00:49	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:42	11/19/24 15:42	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2406151	1	11/21/24 21:00	11/21/24 21:00	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY

CH-CCR-EB01-1024 L1800893-25 WW

Collected by: Nicolas Garnand
Collected date/time: 11/14/24 10:40
Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 10:36	11/24/24 10:36	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 15:20	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Project Narrative

L1800893 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25 contains subout data that is included after the chain of custody.

Sample Delivery Group (SDG) Narrative

Sample received with improper chemical preservation.

Lab Sample ID	Project Sample ID	Method
L1800893-05	CH-CCR-FAP-1024	5310 B-2014

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	5070000		100000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	247000		4750	20000	1	11/20/2024 07:34	WG2404842

Sample Narrative:

L1800893-01 WG2404842: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1560000		27400	50000	50	11/19/2024 00:14	WG2402063
Fluoride	706	E4	380	750	5	11/18/2024 23:20	WG2402063
Sulfate	1430000		31800	250000	50	11/19/2024 00:14	WG2402063

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	392		53.9	100	1	11/19/2024 14:18	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 18:39	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.57	H3	1	11/16/2024 22:00	WG2403128

Sample Narrative:

L1800893-01 WG2403128: 7.57 at 18.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	U	H3	2120	20000	20	11/19/2024 17:33	WG2403915

Sample Narrative:

L1800893-01 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	12000000		200000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	238000		4750	20000	1	11/19/2024 11:06	WG2403979

Sample Narrative:

L1800893-02 WG2403979: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	5190000		54700	100000	100	11/24/2024 00:40	WG2403211
Fluoride	824	R8	380	750	5	11/24/2024 00:13	WG2403211
Sulfate	3100000		63700	500000	100	11/24/2024 00:40	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	1550		53.9	100	1	11/19/2024 14:22	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 18:45	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.10	H3	1	11/20/2024 14:01	WG2404741

Sample Narrative:

L1800893-02 WG2404741: 7.1 at 19C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	4660	E4 H3	2120	20000	20	11/19/2024 17:51	WG2403915

Sample Narrative:

L1800893-02 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	9260000		200000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	171000		4750	20000	1	11/20/2024 11:06	WG2404889

Sample Narrative:

L1800893-03 WG2404889: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	3320000		54700	100000	100	11/24/2024 01:33	WG2403211
Fluoride	1480	R8	380	750	5	11/24/2024 01:07	WG2403211
Sulfate	3010000		63700	500000	100	11/24/2024 01:33	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	237		53.9	100	1	11/19/2024 14:25	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 18:46	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.60	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-03 WG2403124: 7.6 at 19.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	4540	E4 H3	2120	20000	20	11/19/2024 18:08	WG2403915

Sample Narrative:

L1800893-03 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	14400000		400000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	54600		4750	20000	1	11/19/2024 16:46	WG2403981
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 16:46	WG2403981

Sample Narrative:

L1800893-04 WG2403981: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	6120000		54700	100000	100	11/24/2024 02:14	WG2403211
Fluoride	3270		380	750	5	11/24/2024 02:00	WG2403211
Sulfate	3640000		63700	500000	100	11/24/2024 02:14	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	663		53.9	100	1	11/19/2024 14:28	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	268		43.5	200	1	11/21/2024 18:47	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.43	H3	1	11/16/2024 22:00	WG2403128

Sample Narrative:

L1800893-04 WG2403128: 7.43 at 18.7C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2170		102	1000	1	11/23/2024 00:16	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	4730	E4 H3	2120	20000	20	11/19/2024 18:27	WG2403915

Sample Narrative:

L1800893-04 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	259000000		1000000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	964000		4750	20000	1	11/19/2024 11:27	WG2403979
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 11:27	WG2403979

Sample Narrative:

L1800893-05 WG2403979: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	99000000		1090000	2000000	2000	11/25/2024 13:32	WG2403211
Fluoride	113000		3800	7500	50	11/24/2024 02:27	WG2403211
Sulfate	48600000		637000	5000000	1000	11/24/2024 02:41	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	735	E4	539	1000	10	11/19/2024 14:36	WG2404175

Sample Narrative:

L1800893-05 WG2404175: Dilution due to matrix.

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		218	1000	5	11/21/2024 18:48	WG2404872

Sample Narrative:

L1800893-05 WG2404872: Dilution due to matrix.

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	6.79	H3	1	11/20/2024 14:01	WG2404741

Sample Narrative:

L1800893-05 WG2404741: 6.79 at 18.5C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	182000		510	5000	5	11/23/2024 10:26	WG2406951

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	156000	H3	2120	20000	20	11/20/2024 00:08	WG2403915

Sample Narrative:

L1800893-05 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	10500000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	139000		4750	20000	1	11/20/2024 11:11	WG2404889
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 11:11	WG2404889

Sample Narrative:

L1800893-06 WG2404889: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	4230000		54700	100000	100	11/24/2024 03:07	WG2403211
Fluoride	2190		380	750	5	11/24/2024 02:54	WG2403211
Sulfate	3270000		63700	500000	100	11/24/2024 03:07	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:37	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	80.0	E4	43.5	200	1	11/21/2024 18:50	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.59	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-06 WG2403124: 7.59 at 18.8C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1520		102	1000	1	11/23/2024 00:35	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	4590	E4 H3	2120	20000	20	11/19/2024 18:44	WG2403915

Sample Narrative:

L1800893-06 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	15800000		400000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	98600		4750	20000	1	11/18/2024 15:38	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:38	WG2403786

Sample Narrative:

L1800893-07 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	6880000		54700	100000	100	11/24/2024 04:01	WG2403211
Fluoride	1400		380	750	5	11/24/2024 03:48	WG2403211
Sulfate	4410000		63700	500000	100	11/24/2024 04:01	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:39	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	116	E4	43.5	200	1	11/21/2024 18:51	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	6.68	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-07 WG2403119: 6.68 at 20.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2190		102	1000	1	11/23/2024 00:54	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	4760	E4 H3	2120	20000	20	11/19/2024 19:02	WG2403915

Sample Narrative:

L1800893-07 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	12600000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	89100		4750	20000	1	11/18/2024 15:42	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:42	WG2403786

Sample Narrative:

L1800893-08 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	5100000		54700	100000	100	11/24/2024 04:28	WG2403211
Fluoride	2460		380	750	5	11/24/2024 04:14	WG2403211
Sulfate	3460000		63700	500000	100	11/24/2024 04:28	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	1360		53.9	100	1	11/19/2024 14:40	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 11:42	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.59	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-08 WG2403119: 7.59 at 20.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2960		102	1000	1	11/23/2024 01:14	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	6730	E4 H3	2120	20000	20	11/19/2024 19:19	WG2403915

Sample Narrative:

L1800893-08 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	12000000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	103000		4750	20000	1	11/18/2024 15:47	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:47	WG2403786

Sample Narrative:

L1800893-09 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4610000		54700	100000	100	11/24/2024 04:55	WG2403211
Fluoride	904		380	750	5	11/24/2024 04:41	WG2403211
Sulfate	3620000		63700	500000	100	11/24/2024 04:55	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:42	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 11:47	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.36	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-09 WG2403119: 7.36 at 20.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2090		102	1000	1	11/23/2024 01:34	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	6740	E4 H3	2120	20000	20	11/19/2024 19:37	WG2403915

Sample Narrative:

L1800893-09 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	19400000		400000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	98500		4750	20000	1	11/18/2024 15:52	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:52	WG2403786

Sample Narrative:

L1800893-10 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	8720000		54700	100000	100	11/24/2024 05:21	WG2403211
Fluoride	5440		380	750	5	11/24/2024 05:08	WG2403211
Sulfate	4610000		63700	500000	100	11/24/2024 05:21	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:43	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	191	E4	43.5	200	1	11/20/2024 11:49	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.39	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-10 WG2403119: 7.39 at 20.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2540		102	1000	1	11/24/2024 03:15	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	3430	E4 H3	2120	20000	20	11/19/2024 20:33	WG2403915

Sample Narrative:

L1800893-10 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	10900000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	90800		4750	20000	1	11/18/2024 15:56	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:56	WG2403786

Sample Narrative:

L1800893-11 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4050000		54700	100000	100	11/24/2024 05:48	WG2403211
Fluoride	1650		380	750	5	11/24/2024 05:35	WG2403211
Sulfate	3530000		63700	500000	100	11/24/2024 05:48	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	119		53.9	100	1	11/19/2024 14:45	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	47.9	E4	43.5	200	1	11/20/2024 11:50	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.53	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-11 WG2403119: 7.53 at 20.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1690		102	1000	1	11/24/2024 03:34	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2390	E4 H3	2120	20000	20	11/19/2024 20:50	WG2403915

Sample Narrative:

L1800893-11 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	13300000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	48700		4750	20000	1	11/18/2024 16:22	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 16:22	WG2403786

Sample Narrative:

L1800893-12 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	5670000		54700	100000	100	11/24/2024 06:42	WG2403211
Fluoride	2970		380	750	5	11/24/2024 06:29	WG2403211
Sulfate	3380000		63700	500000	100	11/24/2024 06:42	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	1130		53.9	100	1	11/19/2024 14:46	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 11:55	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.68	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-12 WG2403119: 7.68 at 20.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1720		102	1000	1	11/24/2024 03:52	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2540	E4 H3	2120	20000	20	11/19/2024 21:08	WG2403915

Sample Narrative:

L1800893-12 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7760000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	82800		4750	20000	1	11/20/2024 10:53	WG2404883
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 10:53	WG2404883

Sample Narrative:

L1800893-13 WG2404883: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2180000		54700	100000	100	11/24/2024 07:09	WG2403211
Fluoride	2240		380	750	5	11/24/2024 06:55	WG2403211
Sulfate	3210000		63700	500000	100	11/24/2024 07:09	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	117		53.9	100	1	11/19/2024 14:48	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	410		43.5	200	1	11/20/2024 11:56	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.74	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-13 WG2403124: 7.74 at 18.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	795	E4	102	1000	1	11/24/2024 04:54	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	U	H3	2120	20000	20	11/19/2024 21:26	WG2403915

Sample Narrative:

L1800893-13 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7700000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	82400		4750	20000	1	11/20/2024 11:17	WG2404889
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 11:17	WG2404889

Sample Narrative:

L1800893-14 WG2404889: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2160000		54700	100000	100	11/24/2024 07:36	WG2403211
Fluoride	3220		380	750	5	11/24/2024 07:22	WG2403211
Sulfate	3330000		63700	500000	100	11/24/2024 07:36	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:54	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	476		43.5	200	1	11/20/2024 11:58	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.57	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-14 WG2403124: 7.57 at 18.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	669	E4	102	1000	1	11/24/2024 05:29	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2480	E4 H3	2120	20000	20	11/19/2024 21:43	WG2403915

Sample Narrative:

L1800893-14 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	8020000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	89300		4750	20000	1	11/18/2024 16:28	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 16:28	WG2403786

Sample Narrative:

L1800893-15 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	2200000		54700	100000	100	11/24/2024 08:02	WG2403211
Fluoride	1680		380	750	5	11/24/2024 07:49	WG2403211
Sulfate	3160000		63700	500000	100	11/24/2024 08:02	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	141		53.9	100	1	11/19/2024 14:55	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	50.4	E4	43.5	200	1	11/20/2024 11:59	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.59	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-15 WG2403119: 7.59 at 20C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1300		102	1000	1	11/24/2024 05:52	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	2350	E4 H3	2120	20000	20	11/19/2024 22:00	WG2403915

Sample Narrative:

L1800893-15 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7820000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	87400		4750	20000	1	11/18/2024 16:33	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 16:33	WG2403786

Sample Narrative:

L1800893-16 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	2270000		54700	100000	100	11/24/2024 08:29	WG2403211
Fluoride	1790		380	750	5	11/24/2024 08:16	WG2403211
Sulfate	3330000		63700	500000	100	11/24/2024 08:29	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	155		53.9	100	1	11/19/2024 14:57	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 12:00	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.76	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-16 WG2403119: 7.76 at 20C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1000		102	1000	1	11/24/2024 06:15	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	U	H3	2120	20000	20	11/19/2024 22:17	WG2403915

Sample Narrative:

L1800893-16 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	8000000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	103000		4750	20000	1	11/20/2024 07:19	WG2404842
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 07:19	WG2404842

Sample Narrative:

L1800893-17 WG2404842: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2330000		54700	100000	100	11/24/2024 09:24	WG2403211
Fluoride	1440		380	750	5	11/24/2024 09:11	WG2403211
Sulfate	3200000		63700	500000	100	11/24/2024 09:24	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	126		53.9	100	1	11/19/2024 14:58	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 12:01	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.75	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-17 WG2403124: 7.75 at 19C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	877	E4	102	1000	1	11/24/2024 06:33	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2730	E4 H3	2120	20000	20	11/19/2024 22:34	WG2403915

Sample Narrative:

L1800893-17 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7860000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	86100		4750	20000	1	11/20/2024 07:40	WG2404842
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 07:40	WG2404842

Sample Narrative:

L1800893-18 WG2404842: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	2190000		54700	100000	100	11/24/2024 09:51	WG2403211
Fluoride	1690		380	750	5	11/24/2024 09:38	WG2403211
Sulfate	3320000		63700	500000	100	11/24/2024 09:51	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	167		53.9	100	1	11/19/2024 15:00	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 12:03	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.70	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-18 WG2403124: 7.7 at 19.1C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	803	E4	102	1000	1	11/24/2024 06:51	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	U	H3	2120	20000	20	11/19/2024 22:51	WG2403915

Sample Narrative:

L1800893-18 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7880000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	91700		4750	20000	1	11/19/2024 16:49	WG2403981
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 16:49	WG2403981

Sample Narrative:

L1800893-19 WG2403981: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	2340000		54700	100000	100	11/24/2024 10:18	WG2403211
Fluoride	2400		380	750	5	11/24/2024 10:05	WG2403211
Sulfate	3300000		63700	500000	100	11/24/2024 10:18	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	109		53.9	100	1	11/19/2024 15:01	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	74.5	E4	43.5	200	1	11/20/2024 12:04	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.59	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-19 WG2403119: 7.59 at 20C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	836	E4	102	1000	1	11/24/2024 07:08	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	U	H3	2120	20000	20	11/19/2024 23:09	WG2403915

Sample Narrative:

L1800893-19 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7920000		200000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	85800		4750	20000	1	11/20/2024 10:59	WG2404883
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 10:59	WG2404883

Sample Narrative:

L1800893-20 WG2404883: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2300000		54700	100000	100	11/24/2024 10:45	WG2403211
Fluoride	1540		380	750	5	11/24/2024 10:32	WG2403211
Sulfate	3160000		63700	500000	100	11/24/2024 10:45	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	106		53.9	100	1	11/19/2024 15:03	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	98.9	E4	43.5	200	1	11/20/2024 12:05	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.71	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-20 WG2403124: 7.71 at 19C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	887	E4	102	1000	1	11/24/2024 08:05	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1670	B1 H3	106	1000	1	11/26/2024 12:43	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7980000		200000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	101000		4750	20000	1	11/20/2024 07:42	WG2404603
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 07:42	WG2404603

Sample Narrative:

L1800893-21 WG2404603: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	2300000		54700	100000	100	11/24/2024 11:12	WG2403211
Fluoride	1590		380	750	5	11/24/2024 10:58	WG2403211
Sulfate	3160000		63700	500000	100	11/24/2024 11:12	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	127		53.9	100	1	11/19/2024 15:32	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 12:06	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.64	H3	1	11/16/2024 22:00	WG2403128

Sample Narrative:

L1800893-21 WG2403128: 7.64 at 18.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	836	E4	102	1000	1	11/24/2024 09:07	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	1860	H3	106	1000	1	11/26/2024 13:47	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	9400000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	81100		4750	20000	1	11/20/2024 07:46	WG2404842
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 07:46	WG2404842

Sample Narrative:

L1800893-22 WG2404842: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	3510000		54700	100000	100	11/22/2024 23:45	WG2403212
Fluoride	452	E4	380	750	5	11/22/2024 23:32	WG2403212
Sulfate	3290000		63700	500000	100	11/22/2024 23:45	WG2403212

Sample Narrative:

L1800893-22 WG2403212: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 15:36	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	75.4	E4	43.5	200	1	11/21/2024 20:56	WG2406151

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.72	H3	1	11/16/2024 22:00	WG2403128

Sample Narrative:

L1800893-22 WG2403128: 7.72 at 18.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1500		102	1000	1	11/24/2024 09:43	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2170	H3	106	1000	1	11/26/2024 14:23	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7940000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	136000		4750	20000	1	11/19/2024 16:55	WG2403981
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 16:55	WG2403981

Sample Narrative:

L1800893-23 WG2403981: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2020000		54700	100000	100	11/23/2024 00:11	WG2403212
Fluoride	1250		380	750	5	11/22/2024 23:58	WG2403212
Sulfate	2720000		63700	500000	100	11/23/2024 00:11	WG2403212

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	91.0	E4	53.9	100	1	11/19/2024 15:39	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	76.6	E4	43.5	200	1	11/21/2024 20:58	WG2406151

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.90	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-23 WG2403119: 7.9 at 21C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	818	E4	102	1000	1	11/24/2024 10:01	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1440	B1 H3	106	1000	1	11/26/2024 14:41	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6770000		100000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	135000		4750	20000	1	11/19/2024 17:00	WG2403981
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 17:00	WG2403981

Sample Narrative:

L1800893-24 WG2403981: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	1440000		54700	100000	100	11/23/2024 00:36	WG2403212
Fluoride	1650		380	750	5	11/23/2024 00:24	WG2403212
Sulfate	2330000		63700	500000	100	11/23/2024 00:36	WG2403212

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 15:41	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 20:59	WG2406151

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.05	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-24 WG2403119: 8.05 at 19.8C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1810		102	1000	1	11/24/2024 10:20	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	2040	H3	106	1000	1	11/26/2024 15:02	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	U		4750	20000	1	11/19/2024 13:41	WG2403985
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 13:41	WG2403985

Sample Narrative:

L1800893-25 WG2403985: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	U		547	1000	1	11/23/2024 00:49	WG2403212
Fluoride	U		76.1	150	1	11/23/2024 00:49	WG2403212
Sulfate	U		637	5000	1	11/23/2024 00:49	WG2403212

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 15:42	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 21:00	WG2406151

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.21	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-25 WG2403119: 6.21 at 20.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	202	E4	102	1000	1	11/24/2024 10:36	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	1130	B1 H3	106	1000	1	11/26/2024 15:20	WG2406075

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4148527-1 11/18/24 10:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U	E4	10000	10000

L1800177-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800177-01 11/18/24 10:10 • (DUP) R4148527-3 11/18/24 10:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1600000	1590000	1	0.314		10

L1800897-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1800897-06 11/18/24 10:10 • (DUP) R4148527-4 11/18/24 10:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	6810000	6910000	1	1.46		10

Laboratory Control Sample (LCS)

(LCS) R4148527-2 11/18/24 10:10

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8720000	99.1	85.0-115	

Method Blank (MB)

(MB) R4149666-1 11/18/24 12:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		10000	10000

L1800893-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-05 11/18/24 12:41 • (DUP) R4149666-3 11/18/24 12:41

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	259000000	250000000	1	3.58		10

L1800897-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800897-01 11/18/24 12:41 • (DUP) R4149666-4 11/18/24 12:41

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	6180000	6160000	1	0.324		10

Laboratory Control Sample (LCS)

(LCS) R4149666-2 11/18/24 12:41

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8640000	98.2	85.0-115	

Method Blank (MB)

(MB) R4147389-2 11/18/24 13:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1799499-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799499-01 11/18/24 14:40 • (DUP) R4147389-3 11/18/24 14:43

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	47800	48400	1	1.28		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1800066-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800066-02 11/18/24 16:14 • (DUP) R4147389-4 11/18/24 16:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	114000	116000	1	2.06		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148104-2 11/19/24 09:08

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800064-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800064-01 11/19/24 09:24 • (DUP) R4148104-4 11/19/24 09:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	159000	165000	1	3.72		20
Alkalinity,Carbonate	29100	22700	1	24.9	R8	20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1800973-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800973-01 11/19/24 11:20 • (DUP) R4148104-6 11/19/24 11:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	1560000	1580000	1	1.65		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148106-2 11/19/24 15:16

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800385-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800385-01 11/19/24 15:31 • (DUP) R4148106-4 11/19/24 15:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	88500	89100	1	0.696		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148105-2 11/19/24 12:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800242-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800242-02 11/19/24 12:28 • (DUP) R4148105-3 11/19/24 12:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	205000	206000	1	0.578		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148551-2 11/20/24 07:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800031-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800031-01 11/20/24 07:21 • (DUP) R4148551-3 11/20/24 07:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	94900	94600	1	0.362		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1800977-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-10 11/20/24 09:16 • (DUP) R4148551-4 11/20/24 09:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	507000	517000	1	2.00		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148556-2 11/20/24 07:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800893-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-17 11/20/24 07:19 • (DUP) R4148556-3 11/20/24 07:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	103000	101000	1	1.24		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1801219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801219-01 11/20/24 09:38 • (DUP) R4148556-4 11/20/24 09:44

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	186000	196000	1	5.44		20
Alkalinity,Carbonate	27900	18500	1	40.5	E4 R8	20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148552-2 11/20/24 10:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1801329-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801329-01 11/20/24 10:18 • (DUP) R4148552-4 11/20/24 10:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	24700	25700	1	4.11		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1801366-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1801366-04 11/20/24 12:51 • (DUP) R4148552-6 11/20/24 12:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	325000	332000	1	2.26		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148557-2 11/20/24 10:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800186-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-04 11/20/24 10:41 • (DUP) R4148557-3 11/20/24 10:45

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	124000	126000	1	1.10		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1801469-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1801469-06 11/20/24 12:52 • (DUP) R4148557-4 11/20/24 12:57

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	248000	250000	1	0.956		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148877-1 11/18/24 16:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	1160		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1799716-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799716-01 11/18/24 18:33 • (DUP) R4148877-3 11/19/24 00:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	569	4690	1	157	R8	15
Fluoride	U	U	1	0.000		15
Sulfate	U	731	1	200	E4 R8	15

L1799732-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799732-01 11/18/24 18:51 • (DUP) R4148877-6 11/19/24 01:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1620	6570	1	121	R8	15
Fluoride	U	151	1	200	R8	15
Sulfate	U	23700	1	200	R8	15

Laboratory Control Sample (LCS)

(LCS) R4148877-2 11/18/24 16:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	37000	92.4	90.0-110	
Fluoride	8000	7680	96.0	90.0-110	
Sulfate	40000	38200	95.5	90.0-110	

L1799716-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1799716-01 11/18/24 18:33 • (MS) R4148877-4 11/19/24 00:50 • (MSD) R4148877-5 11/19/24 01:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	569	41800	41800	103	103	1	90.0-110			0.0208	15
Fluoride	8000	U	7740	7730	96.7	96.6	1	90.0-110			0.0711	15
Sulfate	40000	U	39100	38900	97.7	97.4	1	90.0-110			0.319	15

L1799732-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1799732-01 11/18/24 18:51 • (MS) R4148877-7 11/19/24 01:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	1620	43300	104	1	90.0-110	
Fluoride	8000	U	7790	97.4	1	90.0-110	
Sulfate	40000	U	58000	145	1	90.0-110	M1

Method Blank (MB)

(MB) R4149963-1 11/23/24 23:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1800893-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-02 11/24/24 00:13 • (DUP) R4149963-4 11/24/24 00:26

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	824	1040	5	23.0	R8	15

L1800893-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-02 11/24/24 00:40 • (DUP) R4149963-5 11/24/24 00:53

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5190000	5230000	100	0.812		15
Sulfate	3100000	3120000	100	0.838		15

L1800893-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-03 11/24/24 01:07 • (DUP) R4149963-6 11/24/24 01:20

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1480	1890	5	24.5	R8	15

L1800893-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-03 11/24/24 01:33 • (DUP) R4149963-7 11/24/24 01:47

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	3320000	3370000	100	1.51		15
Sulfate	3010000	3050000	100	1.45		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4149963-2 11/23/24 23:46 • (LCSD) R4149963-3 11/24/24 00:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	40000	41100	41600	103	104	90.0-110			1.18	15
Fluoride	8000	8220	8300	103	104	90.0-110			0.914	15
Sulfate	40000	41500	41900	104	105	90.0-110			0.960	15

Method Blank (MB)

(MB) R4150022-1 11/22/24 23:07

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1800910-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800910-01 11/23/24 04:40 • (DUP) R4150022-3 11/23/24 04:52

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	70600	70200	1	0.504		15
Fluoride	453	609	1	29.3	R8	15

L1800910-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800910-02 11/23/24 05:31 • (DUP) R4150022-6 11/23/24 05:44

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	59300	59300	1	0.0208		15
Fluoride	227	271	1	17.7	R8	15

Laboratory Control Sample (LCS)

(LCS) R4150022-2 11/22/24 23:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	37800	94.6	90.0-110	
Fluoride	8000	7430	92.9	90.0-110	
Sulfate	40000	38100	95.4	90.0-110	

L1800910-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800910-01 11/23/24 04:40 • (MS) R4150022-4 11/23/24 05:05 • (MSD) R4150022-5 11/23/24 05:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	70600	94400	95700	59.7	62.8	1	90.0-110	M2	M2	1.32	15
Fluoride	8000	453	7220	7400	84.6	86.8	1	90.0-110	M2	M2	2.45	15

L1800910-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800910-02 11/23/24 05:31 • (MS) R4150022-7 11/23/24 05:56

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	59300	86800	68.9	1	90.0-110	M2
Fluoride	8000	227	7560	91.7	1	90.0-110	

Method Blank (MB)

(MB) R4147901-1 11/19/24 14:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ammonia Nitrogen	U		53.9	100

L1800893-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-02 11/19/24 14:22 • (DUP) R4147901-5 11/19/24 14:24

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	1550	1580	1	2.36		10

L1800893-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-04 11/19/24 14:28 • (DUP) R4147901-7 11/19/24 14:34

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	663	669	1	0.901		10

Laboratory Control Sample (LCS)

(LCS) R4147901-2 11/19/24 14:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	7500	7250	96.6	90.0-110	

L1800893-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-01 11/19/24 14:18 • (MS) R4147901-3 11/19/24 14:19 • (MSD) R4147901-4 11/19/24 14:21

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5000	392	5100	5070	94.2	93.6	1	90.0-110			0.550	10

L1800893-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800893-03 11/19/24 14:25 • (MS) R4147901-6 11/19/24 14:27

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ammonia Nitrogen	5000	237	4870	92.7	1	90.0-110	

Method Blank (MB)

(MB) R4147907-1 11/19/24 15:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ammonia Nitrogen	U		53.9	100

L1800893-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-22 11/19/24 15:36 • (DUP) R4147907-5 11/19/24 15:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ammonia Nitrogen	U	U	1	0.000		10

Laboratory Control Sample (LCS)

(LCS) R4147907-2 11/19/24 15:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Ammonia Nitrogen	7500	7290	97.2	90.0-110	

L1800893-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-21 11/19/24 15:32 • (MS) R4147907-3 11/19/24 15:33 • (MSD) R4147907-4 11/19/24 15:35

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Ammonia Nitrogen	5000	127	4870	4820	94.9	93.9	1	90.0-110			0.970	10

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4149266-1 11/21/24 18:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate-Nitrite	U		43.5	200

L1800889-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800889-01 11/21/24 18:34 • (DUP) R4149266-3 11/21/24 18:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	105	106	1	0.948	E4	20

L1800893-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-07 11/21/24 18:51 • (DUP) R4149266-6 11/21/24 18:52

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	116	112	1	3.51	E4	20

Laboratory Control Sample (LCS)

(LCS) R4149266-2 11/21/24 18:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2600	104	90.0-110	

L1800889-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800889-01 11/21/24 18:34 • (MS) R4149266-4 11/21/24 18:37 • (MSD) R4149266-5 11/21/24 18:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	105	2750	2640	106	101	1	90.0-110			4.08	20

L1800893-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800893-07 11/21/24 18:51 • (MS) R4149266-7 11/21/24 18:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	116	2610	99.8	1	90.0-110	

Method Blank (MB)

(MB) R4148308-1 11/20/24 11:40

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate-Nitrite	U		43.5	200

L1800893-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-08 11/20/24 11:42 • (DUP) R4148308-3 11/20/24 11:44

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1800957-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1800957-06 11/20/24 12:18 • (DUP) R4148308-6 11/20/24 12:19

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4148308-2 11/20/24 11:41

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2560	102	90.0-110	

L1800893-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-08 11/20/24 11:42 • (MS) R4148308-4 11/20/24 11:45 • (MSD) R4148308-5 11/20/24 11:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	U	2690	2690	108	108	1	90.0-110			0.000	20

L1800957-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800957-06 11/20/24 12:18 • (MS) R4148308-7 11/20/24 12:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	U	2590	104	1	90.0-110	

Method Blank (MB)

(MB) R4149270-1 11/21/24 20:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate-Nitrite	U		43.5	200

L1799497-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799497-01 11/21/24 20:44 • (DUP) R4149270-3 11/21/24 20:45

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	1400	1400	1	0.000		20

L1799497-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1799497-02 11/21/24 20:49 • (DUP) R4149270-4 11/21/24 20:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4149270-2 11/21/24 20:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2560	102	90.0-110	

L1799497-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1799497-02 11/21/24 20:49 • (MS) R4149270-5 11/21/24 20:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	U	2520	101	1	90.0-110	

L1799497-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1799497-01 11/21/24 20:44 • (MS) R4149270-6 11/21/24 21:23 • (MSD) R4149270-7 11/21/24 21:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	1400	3840	3830	97.6	97.2	1	90.0-110			0.261	20

L1799497-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1799497-01 11/21/24 20:44 • (MS) R4149270-8 11/21/24 20:46 • (MSD) R4149270-9 11/21/24 20:48

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	1400	4230	3820	113	96.8	1	90.0-110	M1		10.2	20

L1800091-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800091-01 11/18/24 11:40 • (DUP) R4147236-2 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.66	7.67	1	0.130		1

Sample Narrative:

OS: 7.66 at 19.6C

DUP: 7.67 at 19.9C

L1800923-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800923-04 11/18/24 11:40 • (DUP) R4147236-3 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.33	8.32	1	0.120		1

Sample Narrative:

OS: 8.33 at 19.7C

DUP: 8.32 at 19.9C

Laboratory Control Sample (LCS)

(LCS) R4147236-1 11/18/24 11:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 20C

L1800813-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800813-02 11/19/24 19:20 • (DUP) R4148042-2 11/19/24 19:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.88	7.90	1	0.253		1

Sample Narrative:

OS: 7.88 at 19.5C

DUP: 7.9 at 19.6C

L1800893-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-20 11/19/24 19:20 • (DUP) R4148042-3 11/19/24 19:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.71	7.73	1	0.259		1

Sample Narrative:

OS: 7.71 at 19C

DUP: 7.73 at 19.1C

Laboratory Control Sample (LCS)

(LCS) R4148042-1 11/19/24 19:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 19.8C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

L1800242-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1800242-13 11/16/24 22:00 • (DUP) R4146912-2 11/16/24 22:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.85	7.88	1	0.381		1

Sample Narrative:

OS: 7.85 at 18.1C

DUP: 7.88 at 18.8C

L1800923-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1800923-03 11/16/24 22:00 • (DUP) R4146912-3 11/16/24 22:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.43	8.43	1	0.000		1

Sample Narrative:

OS: 8.43 at 18.7C

DUP: 8.43 at 19.1C

Laboratory Control Sample (LCS)

(LCS) R4146912-1 11/16/24 22:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 19.7C

L1799456-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799456-01 11/20/24 14:01 • (DUP) R4148449-2 11/20/24 14:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.96	6.98	1	0.287		1

Sample Narrative:

OS: 6.96 at 19.4C

DUP: 6.98 at 19.4C

L1801346-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1801346-10 11/20/24 14:01 • (DUP) R4148449-3 11/20/24 14:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.86	7.87	1	0.127		1

Sample Narrative:

OS: 7.86 at 19.4C

DUP: 7.87 at 19.6C

Laboratory Control Sample (LCS)

(LCS) R4148449-1 11/20/24 14:01

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:

LCS: 9.99 at 19.8C

Method Blank (MB)

(MB) R4148140-2 11/19/24 10:59

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
DOC	U		106	1000

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4148140-1 11/19/24 10:42 • (LCSD) R4148140-3 11/19/24 16:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
DOC	25000	27000	26600	108	106	85.0-115			1.57	20

QUALITY CONTROL SUMMARY

L1800893-20,21,22,23,24,25

Method Blank (MB)

(MB) R4151279-2 11/26/24 12:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
DOC	169	E4	106	1000

L1800893-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-21 11/26/24 13:47 • (DUP) R4151279-5 11/26/24 14:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	1860	1770	1	4.91		20

Laboratory Control Sample (LCS)

(LCS) R4151279-1 11/26/24 11:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
DOC	25000	25200	101	85.0-115	

L1800893-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-20 11/26/24 12:43 • (MS) R4151279-3 11/26/24 13:02 • (MSD) R4151279-4 11/26/24 13:29

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25000	1670	26400	26800	98.8	100	1	80.0-120			1.58	20

Method Blank (MB)

(MB) R4149827-2 11/22/24 14:28

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	U		102	1000

L1800856-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1800856-10 11/22/24 18:04 • (DUP) R4149827-5 11/22/24 18:22

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	1050	932	1	12.3	E4	20

L1800883-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800883-01 11/22/24 23:18 • (DUP) R4149827-8 11/22/24 23:37

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	1190	1180	1	0.506		20

Laboratory Control Sample (LCS)

(LCS) R4149827-1 11/22/24 14:11

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	24200	96.7	85.0-115	

L1800716-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800716-07 11/22/24 17:00 • (MS) R4149827-3 11/22/24 17:23 • (MSD) R4149827-4 11/22/24 17:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	6370	31200	31100	99.1	98.8	1	85.0-115			0.289	20

L1800879-38 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800879-38 11/22/24 22:17 • (MS) R4149827-6 11/22/24 22:38 • (MSD) R4149827-7 11/22/24 23:00

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	249	24200	24200	96.7	96.9	1	85.0-115			0.207	20

Method Blank (MB)

(MB) R4149828-2 11/22/24 16:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	103		102	1000

Laboratory Control Sample (LCS)

(LCS) R4149828-1 11/22/24 16:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	24300	97.3	85.0-115	

Method Blank (MB)

(MB) R4150019-2 11/24/24 02:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	162		102	1000

L1800893-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-13 11/24/24 04:54 • (DUP) R4150019-5 11/24/24 05:12

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	795	779	1	1.94	E4	20

L1800893-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-21 11/24/24 09:07 • (DUP) R4150019-8 11/24/24 09:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	836	795	1	5.02	E4	20

Laboratory Control Sample (LCS)

(LCS) R4150019-1 11/24/24 02:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	24400	97.7	85.0-115	

L1800893-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-12 11/24/24 03:52 • (MS) R4150019-3 11/24/24 04:14 • (MSD) R4150019-4 11/24/24 04:36

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	1720	26400	26100	98.7	97.6	1	85.0-115			1.07	20

L1800893-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-20 11/24/24 08:05 • (MS) R4150019-6 11/24/24 08:27 • (MSD) R4150019-7 11/24/24 08:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	887	25300	25800	97.7	99.7	1	85.0-115			1.96	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 6

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
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SDG # B237 L1800895

Acctnum: AMECTAZ
Template: T259142
Prelogin: P1097829
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L-HDPE-NoPres	200.7-250mL HDPE HNO3 <2	200.7-field filter-Diss Fe, Diss Mn-250mL HNO3	200.8-250mL HDPE HNO3 <2	200.8-Field filter-Diss As, Diss Co-250mL HNO3	TOC-SM5310B 250mL amber HCl	DOC-SM5310B-field filter-250mL amber no pres.	Sm4500NH3G-NH3 as N-250mL H2SO4+Na2S2O3	353.2-NO3+NO2 as N-250mL H2SO4 <2	Remarks	Sample # (lab only)
~~CH-CCR-M44D-1024~~ NCa				~~11-11-24~~	~~1502~~	~~4~~	X	X	X		X							
~~CH-CCR-M54-1024~~ NCa					~~1637~~	~~3~~	X	X	X									
~~CH-CCR-W305-1024~~ NCa					~~1722~~	~~10~~	X	X	X	X	X	X		X	X	X		
~~CH-CCR-MW79A-1024~~ NCa					~~1810~~	~~10~~	X	X	X	X	X	X		X	X	X		
CH-CCR-M67A-1024		WW		11-12-24	1237	10	X	X	X	X	X	X		X	X	X		-01
CH-CCR-M46A-1024					1513	10	X	X	X	X	X	X		X	X	X		-02
CH-CCR-MW65A-1024					1640	10	X	X	X	X	X	X		X	X	X		-03
CH-CCR-HuntB-1024	grab				1727	12	X	X	X	X	X	X	X	X	X	X		-04
CH-CCR-FAP-1024				11-13-24	1148	12	X	X	X	X	X	X	X	X	X	X		-05
CH-CCR-EW01-1024					1220	11	X	X		X	X	X	X	X	X	X		-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 - Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na first 4 shipped 11/14/24
200.8 - Total Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl
M44D 200.7 - Total B, Ca, Be, Li // M54 200.7 - Total B, Total Ca // FAP - add 200.7 - Total Ag

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __UPS __FedEx __Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
[signature]	11/14/2024	1653	[signature]		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C multi	Bottles Received: 274
[signature]	11/15/24	1800	FedEx		
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11-16-24	Time: 0800
			[signature] 17		

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPAZ

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com;natalie.chrismanlaz**

Project Description: **APS-Cholla**

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project # **AMECTAZ-APSCHOLLA**

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	~~G, FL, SO4, pH 125mlHDPE-NoPres~~	~~TDS 1L HDPE NoPres~~	SM2320B - CO_3 Alkalinity as $CaCO_3$ 125mL	SM2320B - HCO_3 Alkalinity as $CaCO_3$ 125mL	245.1 - Hg, included in 200.7 unfiltered bottle						
~~CH-CCR-M44D-1024~~				~~11-11-24~~	1503	~~4~~											
~~CH-CCR-M54-1024~~					1637	~~3~~											
~~CH-CCR-W305-1024~~					1722	~~10~~				X							
~~CH-CCR-MW74A-1024~~					1810	~~10~~				X							
CH-CCR-M67A-1024		WW		11-12-24	1237	10				X							-01
CH-CCR-M46A-1024					1513	10				X							-02
CH-CCR-MW69A-1024					1640	10				X							-03
CH-CCR-HuntB-1024					1727	12			X	X	X						-04
CH-CCR-FAP-1024	grab			11-13-24	1148	12			X	X	X						-05
CH-CCR-EW01-1024	↓	↓		↓	1220	11			X	X	X						-06

Chain of Custody Page 1 of 1

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SDG # L1600895

Table #

Acctnum: **AMECTAZ**
Template: **T259142**
Prelogin: **P1097829**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: first four shipped 11/14/24

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Nicolas Hamand	11/14/24	1653	Amber Myers		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received:
Amber Myers	11/15/24	1800	FedEx	multi	274
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:
			E. Dann 17	11-16-24	0800

If preservation required by Login: Date/Time

Hold: | Condition: NCF / OK

PNPAZ

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com;natalie.chrismanlaz**

Project Description: **APS-Cholla**

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project # **AMECTAZ-APSCHOLLA**

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L-HDPE-NoPres	200.7 - 250mL HDPE HNO3	200.7 - Field Filter - Diss Fe, Diss Mn - 250mL HNO3	200.8 - 250mL HDPE HNO3	200.8 - Field Filter - Diss As, Diss Co 250mL HNO3	TOC-SM5310B 250mL amber HCl	DOC-SM5310 B - Field Filter - 250mL amber no pres.	SM4500NH3G - NH3 as N - 250mL H2SO4	353.2 - NO3 + NO2 as N - 250mL H2SO4	Remarks	Sample # (lab only)
CH-CCR-EW02-1024	Grab	WW		11-13-24	1242	11	X	X	X	X	X	X	X	X	X	X		-07
CH-CCR-GSX4-1024					1259	11	X	X	X	X	X	X	X	X	X	X		-08
CH-CCR-EW03-1024					1317	11	X	X	X	X	X	X	X	X	X	X		-01
CH-CCR-GSX3-1024					1337	11	X	X	X	X	X	X	X	X	X	X		-10
CH-CCR-GSX1R-1024					1352	11	X	X	X	X	X	X	X	X	X	X		-11
CH-CCR-EW04-1024					1412	11	X	X	X	X	X	X	X	X	X	X		-12
CH-CCR-Petro-1024					1521	11	X	X	X	X	X	X	X	X	X	X		-13
CH-CCR-Tanner-1024					1545	11	X	X	X	X	X	X	X	X	X	X		-14
CH-CCR-TWX3-1024					1604	11	X	X	X	X	X	X	X	X	X	X		-15
CH-CCR-TWX4-1024					1620	11	X	X	X	X	X	X	X	X	X	X		-16

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 - Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na
200.8 - Total Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Hamand	11/14/24	1653	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/15/24	1800	FedEx
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			17

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 274
multi

Date: 11-16-24 Time: 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 3 of 6

Pace
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SDG # L1800897

Table #

Acctnum: **AMECTAZ**
Template: **T259142**
Prelogin: **P1097829**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

PNPAZ

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	~~Cl, Fl, SO4, pH 125mlHDPE NoPres~~	~~TDS 1L HDPE NoPres~~	SM2320B - CO_3 Alkalinity as $CaCO_3$ 125mL	SM2320B - HCO_3 Alkalinity as $CaCO_3$ 125mL	245.1 - Hg, included in 200.7 Unfiltered bottle						Remarks	Sample # (lab only)
CH-CCR-EW02-1024	Grab	WW		11-13-24	1242	11			X	X	X							-07
CH-CCR-GSX4-1024					1259	11			X	X	X							-8
CH-CCR-EW03-1024					1317	11			X	X	X							-09
CH-CCR-GSX3-1024					1337	11			X	X	X							-10
CH-CCR-GSX1R-1024					1352	11			X	X	X							-11
CH-CCR-EW04-1024					1412	11			X	X	X							-12
CH-CCR-Petro-1024					1521	11			X	X	X							-13
CH-CCR-Tanner-1024					1545	11			X	X	X							-14
CH-CCR-TWX3-1024					1604	11			X	X	X							-15
CH-CCR-TWX4-1024					1620	11			X	X	X							-16

Chain of Custody Page 4 of 4

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MT JULIET, TN
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SDG # L1500893

Table #

Acctnum: AMECTAZ
Template: T259142
Prelogin: P1097829
PM: 288 - Daphne Richards
PB:

Shipped Via: FedEx Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Garnand	11/14/24	1653	
	11/15/24	1800	FedEx
			Received for lab by: (Signature) Ei Dan 17

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 274

Date: 11-16-24 Time: 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPAZ

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature): MGIL

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 5 of 6

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1K008913

Table #

Acctnum: AMECTAZ
Template: T259142
Prelogin: P1097829
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L-HDPE-NoPres	200.7 - 250mL HDPE - HNO3	200.7 - field filter - Diss. Fe, Diss. Mn - 250mL HNO3	200.8 - 250mL HDPE - HNO3	200.8 - field filter - Diss. As, Diss. Co - 250mL HNO3	TOC - SM5310B - 250mL amber - HCl	DOC - SM5310B - field filter - 250mL amber no pres.	SM4500 NH3G - NH3 as N - 250mL H2SO4 + Na2S2O3	353.2 - NO3 + NO2 as N - 250mL H2SO4	Remarks	Sample # (lab only)
CH-CCR-TWX5-1024	grab	WW		11-13-24	1638	11	X	X	X	X	X	X	X	X	X	X		-17
CH-CCR-TWX6-1024					1646	11	X	X	X	X	X	X	X	X	X	X		-18
CH-CCR-TWX7-1024					1655	11	X	X	X	X	X	X	X	X	X	X		-19
CH-CCR-TWX8-1024					1710	11	X	X	X	X	X	X	X	X	X	X		-20
CH-CCR-TWX9-1024					1720	11	X	X	X	X	X	X	X	X	X	X		-21
CH-CCR-TWX10-1024					1733	11	X	X	X	X	X	X	X	X	X	X		-22
CH-CCR-BAPTD-1024	grab			11-14-24	0923	11	X	X	X	X	X	X	X	X	X	X		-23
CH-CCR-BAP-1024	Comp				0953	11	X	X	X	X	X	X	X	X	X	X		-24
~~CH-CCR-MSS-1024~~	grab				1040	11	X	X	X	X	X	X	X	X	X	X		-25
~~CH-CCR-FD03-1024~~								~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		-26

* Matrix: CH-CCR-EB01-1024
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 - Total B, Ca, Be, Li, Fe, Mn; K, Mg, Na
200.8 - Total Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Nedos Garrand	11/14/24	1653	Amber Myers		
Amber Myers	11/15/24	1800	FedEx	Temp: °C mu125 Bottles Received: 274	If preservation required by Login: Date/Time
			Received for lab by: (Signature) Eri Davis 17	Date: 11-16-24 Time: 0800	Hold: Condition: NCF / OK

PNPAZ

Company Name/Address:	Billing Information:	Pres Chk
WSP (Formely Wood E&I)-Phoenix, AZ 4600 East Washington Street, Ste 600 Phoenix, AZ 85034	Accounts Payable 4600 East Washington Street, Ste 600 Phoenix, AZ 85034	

Report to:	Email To:
Samantha O'Shea	samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:	City/State Collected:	Please Circle:
APS-Cholla	Joseph City AZ	PT MT CT ET

Phone:	Client Project #	Lab Project #
602-733-6110		AMECTAZ-APSCHOLLA

Collected by (print):	Site/Facility ID #	P.O. #
Brad Hartman		

Collected by (signature):	Rush? (Lab MUST Be Notified)	Quote #
	___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Date Results Needed

Immediately Packed on Ice N ___ Y X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L-HDPE-NoPres	SM2320B - CO_3 Alkalinity as $CaCO_3$ 125mL	SM2320B - HCO_3 Alkalinity as $CaCO_3$ 125mL	245.1 - Hg, included in 200.7 unfiltered bottle						Remarks	Sample # (lab only)
CH-CCR-TWX5-1024	grab	WW		11-13-24	1638	11			X	X	X							-17
CH-CCR-TWX6-1024					1646	11			X	X	X							-18
CH-CCR-TWX7-1024					1655	11			X	X	X							-9
CH-CCR-TWX8-1024					1710	11			X	X	X							-20
CH-CCR-TWX9-1024					1720	11			X	X	X							-1
CH-CCR-TWX10-1024					1733	11			X	X	X							-22
CH-CCR-BAPTD-1024				11-14-24	0923	11			X	X	X							-23
CH-CCR-BAP-1024	Comp				0953	11			X	X	X							-24
CH-CCR-EB01-1024	grab				1040	11			X	X	X							-7
																		-25

Chain of Custody Page 6 of 6

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1800577

Table #

Acctnum: **AMECTAZ**
Template: **T259142**
Prelogin: **P1097829**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Garnaud	11/14/24	1653	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/15/24	1800	FedEx
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.7 °C Bottles Received: 24

Date: 11-16-24 Time: 0800

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

PNPAZ

Fed Ex tracking #	Gun ID	Temperature
N/A	TA9	1.0+0=1.0
↓	↓	0.2+0=0.2
		0.6+0=0.6
		0.3+0=0.3
		1.2+0=1.2
		1.6+0=1.6
		0.7+0=0.7
	↓	1.7+0=1.7
↓		1.4+0=1.4

Eli Dossett
Name

11-16-24
Date

L1820893

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 10, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1800893 WG2404282
Pace Project No.: 10716376

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10716376001	**CH-CCR-M67A-1024**	Water	11/12/24 12:37	11/20/24 10:05
10716376002	**CH-CCR-M46A-1024**	Water	11/12/24 15:13	11/20/24 10:05
10716376003	**CH-CCR-M65A-1024**	Water	11/12/24 16:40	11/20/24 10:05
10716376004	**CH-CCR-HUNTB-1024**	Water	11/12/24 17:27	11/20/24 10:05
10716376005	**CH-CCR-FAP-1024**	Water	11/13/24 11:48	11/20/24 10:05
10716376006	**CH-CCR-EW01-1024**	Water	11/13/24 12:20	11/20/24 10:05
10716376007	**CH-CCR-EW02-1024**	Water	11/13/24 12:42	11/20/24 10:05
10716376008	**CH-CCR-GSX4-1024**	Water	11/13/24 12:59	11/20/24 10:05
10716376009	**CH-CCR-EW03-1024**	Water	11/13/24 13:17	11/20/24 10:05
10716376010	**CH-CCR-GSX3-1024**	Water	11/13/24 13:37	11/20/24 10:05
10716376011	**CH-CCR-GSX1R-1024**	Water	11/13/24 13:52	11/20/24 10:05
10716376012	**CH-CCR-EW04-1024**	Water	11/13/24 14:12	11/20/24 10:05
10716376013	**CH-CCR-PETRO-1024**	Water	11/13/24 15:21	11/20/24 10:05
10716376014	**CH-CCR-TANNER-1024**	Water	11/13/24 15:45	11/20/24 10:05
10716376015	**CH-CCR-TWX3-1024**	Water	11/13/24 16:04	11/20/24 10:05
10716376016	**CH-CCR-TWX4-1024**	Water	11/13/24 16:20	11/20/24 10:05
10716376017	**CH-CCR-TWX5-1024**	Water	11/13/24 16:38	11/20/24 10:05
10716376018	**CH-CCR-TWX6-1024**	Water	11/13/24 16:46	11/20/24 10:05
10716376019	**CH-CCR-TWX7-1024**	Water	11/13/24 16:55	11/20/24 10:05
10716376020	**CH-CCR-TWX8-1024**	Water	11/13/24 17:10	11/20/24 10:05
10716376021	**CH-CCR-TWX9-1024**	Water	11/13/24 17:20	11/20/24 10:05
10716376022	**CH-CCR-TWX10-1024**	Water	11/13/24 17:33	11/20/24 10:05
10716376023	**CH-CCR-BAPTD-1024**	Water	11/14/24 09:23	11/20/24 10:05
10716376024	**CH-CCR-BAP-1024**	Water	11/14/24 09:53	11/20/24 10:05
10716376025	**CH-CCR-EB01-1024**	Water	11/14/24 10:40	11/20/24 10:05

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10716376001	**CH-CCR-M67A-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376002	**CH-CCR-M46A-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376003	**CH-CCR-M65A-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376004	**CH-CCR-HUNTB-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376005	**CH-CCR-FAP-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	12	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376006	**CH-CCR-EW01-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376007	**CH-CCR-EW02-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376008	**CH-CCR-GSX4-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376009	**CH-CCR-EW03-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376010	**CH-CCR-GSX3-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376011	**CH-CCR-GSX1R-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376012	**CH-CCR-EW04-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376013	**CH-CCR-PETRO-1024**	EPA 200.7	SMB	8	PASI-M

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 200.8	IMB	11	PASI-M
10716376014	**CH-CCR-TANNER-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376015	**CH-CCR-TWX3-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376016	**CH-CCR-TWX4-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376017	**CH-CCR-TWX5-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376018	**CH-CCR-TWX6-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376019	**CH-CCR-TWX7-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376020	**CH-CCR-TWX8-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376021	**CH-CCR-TWX9-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376022	**CH-CCR-TWX10-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376023	**CH-CCR-BAPTD-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376024	**CH-CCR-BAP-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376025	**CH-CCR-EB01-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-M67A-1024 **Lab ID: 10716376001** Collected: 11/12/24 12:37 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:25	7440-41-7	
Boron	**332**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:25	7440-42-8	
Calcium	**482000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:25	7440-70-2	P6
Iron	**3410**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:25	7439-89-6	
Magnesium	**191000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:25	7439-95-4	
Manganese	**1290**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:25	7439-96-5	
Potassium	**10700**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:25	7440-09-7	
Sodium	**805000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:36	7440-23-5	P6
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 14:01	7440-36-0	D3
Arsenic	**4.6**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 14:01	7440-38-2	
Barium	**21.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 14:01	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 14:01	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 14:01	7440-47-3	D3
Cobalt	**4.3**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 14:01	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 14:01	7439-92-1	D3
Lithium	**123**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 14:01	7439-93-2	
Molybdenum	**2.4J**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 14:01	7439-98-7	D3
Selenium	**0.46J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 14:01	7782-49-2	D3
Thallium	**0.16J**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 14:01	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/02/24 06:17	12/03/24 10:56	7439-97-6	

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-M46A-1024 **Lab ID: 10716376002** Collected: 11/12/24 15:13 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:31	7440-41-7	
Boron	**625**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:31	7440-42-8	
Calcium	**789000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:31	7440-70-2	
Iron	**6350**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:31	7439-89-6	
Magnesium	**170000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:31	7439-95-4	
Manganese	**4040**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:31	7439-96-5	
Potassium	**13700**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:31	7440-09-7	
Sodium	**2900000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:07	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 14:07	7440-36-0	D3
Arsenic	**7.4**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 14:07	7440-38-2	
Barium	**17.4**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 14:07	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 14:07	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 14:07	7440-47-3	D3
Cobalt	**1.3J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 14:07	7440-48-4	D3
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 14:07	7439-92-1	D3
Lithium	**253**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 14:07	7439-93-2	
Molybdenum	**9.2**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 14:07	7439-98-7	
Selenium	**0.34J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 14:07	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 14:07	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/02/24 06:17	12/03/24 10:58	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-M65A-1024 **Lab ID: 10716376003** Collected: 11/12/24 16:40 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:33	7440-41-7	
Boron	**9620**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:33	7440-42-8	
Calcium	**683000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:33	7440-70-2	
Iron	**885**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:33	7439-89-6	
Magnesium	**239000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:33	7439-95-4	
Manganese	**294**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:33	7439-96-5	
Potassium	**25400**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:33	7440-09-7	
Sodium	**1790000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:41	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:01	7440-36-0	D3
Arsenic	**3.3**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:01	7440-38-2	
Barium	**20.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:01	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:01	7440-43-9	D3
Chromium	**3.3J**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:01	7440-47-3	D3
Cobalt	**2.3J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:01	7440-48-4	D3
Lead	**0.56J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:01	7439-92-1	D3
Lithium	**430**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:01	7439-93-2	
Molybdenum	**96.9**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:01	7439-98-7	
Selenium	**0.83J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:01	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 22:48	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/02/24 06:17	12/03/24 10:59	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-HUNTB-1024 **Lab ID: 10716376004** Collected: 11/12/24 17:27 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:34	7440-41-7	
Boron	**35400**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:09	7440-42-8	
Calcium	**760000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:34	7440-70-2	
Iron	**34.7J**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:34	7439-89-6	
Magnesium	**282000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:34	7439-95-4	
Manganese	**1440**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:34	7439-96-5	
Potassium	**33200**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:34	7440-09-7	
Sodium	**3490000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:09	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:07	7440-36-0	D3
Arsenic	**<0.66**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:07	7440-38-2	D3
Barium	**10.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:07	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:07	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:07	7440-47-3	D3
Cobalt	**6.3**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:07	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:07	7439-92-1	D3
Lithium	**437**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:07	7439-93-2	
Molybdenum	**250**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:07	7439-98-7	
Selenium	**1.0J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:07	7782-49-2	D3
Thallium	**0.18J**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 22:55	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 10:52	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-FAP-1024 **Lab ID: 10716376005** Collected: 11/13/24 11:48 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**4.8J**	ug/L	50.0	4.4	10	11/26/24 10:20	12/05/24 16:43	7440-41-7	D3
Boron	**1120000**	ug/L	15000	1600	100	11/26/24 10:20	12/05/24 17:01	7440-42-8	
Calcium	**288000**	ug/L	5000	318	10	11/26/24 10:20	12/05/24 16:43	7440-70-2	
Iron	**335J**	ug/L	500	74.6	10	11/26/24 10:20	12/05/24 16:43	7439-89-6	D3
Magnesium	**19600000**	ug/L	50000	2890	100	11/26/24 10:20	12/05/24 17:01	7439-95-4	
Manganese	**50700**	ug/L	50.0	5.0	10	11/26/24 10:20	12/05/24 16:43	7439-96-5	
Potassium	**1050000**	ug/L	25000	1080	10	11/26/24 10:20	12/05/24 16:43	7440-09-7	
Sodium	**56000000**	ug/L	500000	22700	500	11/26/24 10:20	12/05/24 17:07	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**114**	ug/L	25.0	3.0	50	11/26/24 10:05	12/06/24 12:17	7440-36-0	
Arsenic	**754**	ug/L	25.0	6.6	50	11/26/24 10:05	12/06/24 12:17	7440-38-2	
Barium	**127**	ug/L	15.0	4.5	50	11/26/24 10:05	12/06/24 12:17	7440-39-3	
Cadmium	**<1.8**	ug/L	4.0	1.8	50	11/26/24 10:05	12/06/24 12:17	7440-43-9	D3
Chromium	**<25.0**	ug/L	100	25.0	50	11/26/24 10:05	12/06/24 12:17	7440-47-3	D3
Cobalt	**12.3J**	ug/L	25.0	2.0	50	11/26/24 10:05	12/06/24 12:17	7440-48-4	D3
Lead	**<3.2**	ug/L	25.0	3.2	50	11/26/24 10:05	12/06/24 12:17	7439-92-1	D3
Lithium	**11700**	ug/L	25.0	10.2	50	11/26/24 10:05	12/06/24 12:17	7439-93-2	
Molybdenum	**666**	ug/L	25.0	5.7	50	11/26/24 10:05	12/06/24 12:17	7439-98-7	
Selenium	**259**	ug/L	25.0	3.1	50	11/26/24 10:05	12/06/24 12:17	7782-49-2	
Silver	**<2.9**	ug/L	25.0	2.9	50	11/26/24 10:05	12/06/24 12:17	7440-22-4	D3
Thallium	**<1.3**	ug/L	5.0	1.3	50	11/26/24 10:05	12/06/24 12:17	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.74**	ug/L	2.0	0.74	1	11/26/24 11:05	11/27/24 10:56	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EW01-1024 **Lab ID: 10716376006** Collected: 11/13/24 12:20 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:38	7440-41-7	
Boron	**3950**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:38	7440-42-8	
Calcium	**746000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:38	7440-70-2	
Iron	**1500**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:38	7439-89-6	
Magnesium	**253000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:38	7439-95-4	
Manganese	**4110**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:38	7439-96-5	
Potassium	**8190**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:38	7440-09-7	
Sodium	**2160000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:11	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:26	7440-36-0	D3
Arsenic	**<0.66**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:26	7440-38-2	D3
Barium	**12.2**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:26	7440-39-3	
Cadmium	**0.20J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:26	7440-43-9	D3
Chromium	**5.7J**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:26	7440-47-3	D3
Cobalt	**1.6J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:26	7440-48-4	D3
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:26	7439-92-1	D3
Lithium	**414**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:26	7439-93-2	
Molybdenum	**17.5**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:26	7439-98-7	
Selenium	**8.9**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:26	7782-49-2	
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:14	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 10:58	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EW02-1024 **Lab ID: 10716376007** Collected: 11/13/24 12:42 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:40	7440-41-7	
Boron	**36200**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:13	7440-42-8	
Calcium	**762000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:40	7440-70-2	
Iron	**29100**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:40	7439-89-6	
Magnesium	**489000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:40	7439-95-4	
Manganese	**3680**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:40	7439-96-5	
Potassium	**14600**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:40	7440-09-7	
Sodium	**4310000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:13	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:33	7440-36-0	D3
Arsenic	**8.8**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:33	7440-38-2	
Barium	**11.0**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:33	7440-39-3	
Cadmium	**0.45**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:33	7440-43-9	
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:33	7440-47-3	D3
Cobalt	**2.4J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:33	7440-48-4	D3
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:33	7439-92-1	D3
Lithium	**648**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:33	7439-93-2	
Molybdenum	**115**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:33	7439-98-7	
Selenium	**7.6**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:33	7782-49-2	
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:20	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 10:59	7439-97-6	

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(612)607-1700

ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-GSX4-1024 **Lab ID: 10716376008** Collected: 11/13/24 12:59 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:42	7440-41-7	
Boron	**25000**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:14	7440-42-8	
Calcium	**718000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:42	7440-70-2	
Iron	**2100**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:42	7439-89-6	
Magnesium	**221000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:42	7439-95-4	
Manganese	**3680**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:42	7439-96-5	
Potassium	**26800**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:42	7440-09-7	
Sodium	**3090000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:14	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:39	7440-36-0	D3
Arsenic	**17.8**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:39	7440-38-2	
Barium	**7.8**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:39	7440-39-3	
Cadmium	**0.42**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:39	7440-43-9	
Chromium	**98.9**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:39	7440-47-3	
Cobalt	**0.98J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:39	7440-48-4	D3
Lead	**1.3J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:39	7439-92-1	D3
Lithium	**410**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:39	7439-93-2	
Molybdenum	**441**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:39	7439-98-7	
Selenium	**0.72J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:39	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:26	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:03	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EW03-1024 **Lab ID: 10716376009** Collected: 11/13/24 13:17 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:47	7440-41-7	
Boron	**17800**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:47	7440-42-8	
Calcium	**650000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:47	7440-70-2	
Iron	**5000**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:47	7439-89-6	
Magnesium	**280000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:47	7439-95-4	
Manganese	**2120**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:47	7439-96-5	
Potassium	**21200**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:47	7440-09-7	
Sodium	**2770000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:16	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:52	7440-36-0	D3
Arsenic	**1.8J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:52	7440-38-2	D3
Barium	**8.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:52	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:52	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:52	7440-47-3	D3
Cobalt	**2.6**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:52	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:52	7439-92-1	D3
Lithium	**478**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:52	7439-93-2	
Molybdenum	**394**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:52	7439-98-7	
Selenium	**3.9**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:52	7782-49-2	
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:39	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:05	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-GSX3-1024 **Lab ID: 10716376010** Collected: 11/13/24 13:37 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:49	7440-41-7	
Boron	**52400**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:18	7440-42-8	
Calcium	**832000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:49	7440-70-2	
Iron	**537**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:49	7439-89-6	
Magnesium	**566000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:49	7439-95-4	
Manganese	**355**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:49	7439-96-5	
Potassium	**52000**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:49	7440-09-7	
Sodium	**4910000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:18	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:58	7440-36-0	D3
Arsenic	**16.7**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:58	7440-38-2	
Barium	**5.3**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:58	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:58	7440-43-9	D3
Chromium	**4.7J**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:58	7440-47-3	D3
Cobalt	**2.0J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:58	7440-48-4	D3
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:58	7439-92-1	D3
Lithium	**583**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:58	7439-93-2	
Molybdenum	**48.6**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:58	7439-98-7	
Selenium	**1.0J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:58	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:46	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:06	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-GSX1R-1024 **Lab ID: 10716376011** Collected: 11/13/24 13:52 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:51	7440-41-7	
Boron	**15000**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:51	7440-42-8	P6
Calcium	**680000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:51	7440-70-2	P6
Iron	**39.9J**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:51	7439-89-6	
Magnesium	**255000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:51	7439-95-4	P6
Manganese	**1030**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:51	7439-96-5	
Potassium	**27700**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:51	7440-09-7	
Sodium	**2650000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:24	7440-23-5	P6
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:05	7440-36-0	D3
Arsenic	**0.84J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:05	7440-38-2	D3
Barium	**9.2**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:05	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:05	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:05	7440-47-3	D3
Cobalt	**2.9**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:05	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:05	7439-92-1	D3
Lithium	**461**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:05	7439-93-2	
Molybdenum	**431**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:05	7439-98-7	
Selenium	**3.9**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:05	7782-49-2	
Thallium	**0.16J**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:52	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:08	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EW04-1024 **Lab ID: 10716376012** Collected: 11/13/24 14:12 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:55	7440-41-7	
Boron	**31100**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:34	7440-42-8	
Calcium	**711000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:55	7440-70-2	
Iron	**270**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:55	7439-89-6	
Magnesium	**188000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:55	7439-95-4	
Manganese	**1020**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:55	7439-96-5	
Potassium	**25400**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:55	7440-09-7	
Sodium	**3330000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:34	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:18	7440-36-0	D3
Arsenic	**4.0**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:18	7440-38-2	
Barium	**10.4**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:18	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:18	7440-43-9	D3
Chromium	**2.9J**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:18	7440-47-3	D3
Cobalt	**3.7**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:18	7440-48-4	
Lead	**0.70J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:18	7439-92-1	D3
Lithium	**389**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:18	7439-93-2	
Molybdenum	**264**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:18	7439-98-7	
Selenium	**0.76J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:18	7782-49-2	D3
Thallium	**0.69**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:58	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:09	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-PETRO-1024 **Lab ID: 10716376013** Collected: 11/13/24 15:21 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:56	7440-41-7	
Boron	**3660**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:56	7440-42-8	
Calcium	**631000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:56	7440-70-2	
Iron	**46.8J**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:56	7439-89-6	
Magnesium	**234000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:56	7439-95-4	
Manganese	**1640**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:56	7439-96-5	
Potassium	**16800**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:56	7440-09-7	
Sodium	**1480000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:45	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:30	7440-36-0	D3
Arsenic	**1.9J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:30	7440-38-2	D3
Barium	**10.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:30	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:30	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:30	7440-47-3	D3
Cobalt	**10.9**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:30	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:30	7439-92-1	D3
Lithium	**155**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:30	7439-93-2	
Molybdenum	**25.9**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:30	7439-98-7	
Selenium	**<0.31**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:30	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:17	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TANNER-1024 **Lab ID: 10716376014** Collected: 11/13/24 15:45 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:58	7440-41-7	
Boron	**3720**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:58	7440-42-8	
Calcium	**618000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:58	7440-70-2	
Iron	**42.5J**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:58	7439-89-6	
Magnesium	**250000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:58	7439-95-4	
Manganese	**1730**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:58	7439-96-5	
Potassium	**17800**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:58	7440-09-7	
Sodium	**1380000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:50	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:43	7440-36-0	D3
Arsenic	**1.4J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:43	7440-38-2	D3
Barium	**9.3**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:43	7440-39-3	
Cadmium	**0.18J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:43	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:43	7440-47-3	D3
Cobalt	**10**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:43	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:43	7439-92-1	D3
Lithium	**165**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:43	7439-93-2	
Molybdenum	**19.9**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:43	7439-98-7	
Selenium	**0.93J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:43	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:24	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX3-1024 **Lab ID: 10716376015** Collected: 11/13/24 16:04 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:00	7440-41-7	
Boron	**3030**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:00	7440-42-8	
Calcium	**568000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:00	7440-70-2	
Iron	**182**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:00	7439-89-6	
Magnesium	**188000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:00	7439-95-4	
Manganese	**3270**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:00	7439-96-5	
Potassium	**13100**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:00	7440-09-7	
Sodium	**1490000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:52	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:50	7440-36-0	D3
Arsenic	**1.5J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:50	7440-38-2	D3
Barium	**8.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:50	7440-39-3	
Cadmium	**0.35J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:50	7440-43-9	D3
Chromium	**33.8**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:50	7440-47-3	
Cobalt	**13.6**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:50	7440-48-4	
Lead	**0.64J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:50	7439-92-1	D3
Lithium	**175**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:50	7439-93-2	
Molybdenum	**42.1**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:50	7439-98-7	
Selenium	**0.51J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:50	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:30	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX4-1024 **Lab ID: 10716376016** Collected: 11/13/24 16:20 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:37	7440-41-7	
Boron	**3180**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:37	7440-42-8	
Calcium	**648000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:37	7440-70-2	
Iron	**1630**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:37	7439-89-6	
Magnesium	**217000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:37	7439-95-4	
Manganese	**3660**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:37	7439-96-5	
Potassium	**14700**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:37	7440-09-7	
Sodium	**1540000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:54	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:56	7440-36-0	D3
Arsenic	**3.7**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:56	7440-38-2	
Barium	**8.4**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:56	7440-39-3	
Cadmium	**0.40**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:56	7440-43-9	
Chromium	**42.2**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:56	7440-47-3	
Cobalt	**14.3**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:56	7440-48-4	
Lead	**0.54J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:56	7439-92-1	D3
Lithium	**179**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:56	7439-93-2	
Molybdenum	**42.8**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:56	7439-98-7	
Selenium	**0.51J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:56	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:43	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX5-1024 **Lab ID: 10716376017** Collected: 11/13/24 16:38 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:42	7440-41-7	
Boron	**2830**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:42	7440-42-8	
Calcium	**629000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:42	7440-70-2	
Iron	**1170**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:42	7439-89-6	
Magnesium	**207000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:42	7439-95-4	
Manganese	**3190**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:42	7439-96-5	
Potassium	**16000**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:42	7440-09-7	
Sodium	**1570000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:56	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 19:09	7440-36-0	D3
Arsenic	**1.4J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 19:09	7440-38-2	D3
Barium	**8.8**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 19:09	7440-39-3	
Cadmium	**0.72**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 19:09	7440-43-9	
Chromium	**324**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 19:09	7440-47-3	
Cobalt	**25.6**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 19:09	7440-48-4	
Lead	**1.6J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 19:09	7439-92-1	D3
Lithium	**192**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 19:09	7439-93-2	
Molybdenum	**104**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 19:09	7439-98-7	
Selenium	**0.80J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 19:09	7782-49-2	D3
Thallium	**0.14J**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:49	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX6-1024 **Lab ID: 10716376018** Collected: 11/13/24 16:46 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:44	7440-41-7	
Boron	**3510**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:44	7440-42-8	
Calcium	**647000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:44	7440-70-2	
Iron	**79.3**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:44	7439-89-6	
Magnesium	**223000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:44	7439-95-4	
Manganese	**3090**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:44	7439-96-5	
Potassium	**13000**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:44	7440-09-7	
Sodium	**1470000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:58	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 19:15	7440-36-0	D3
Arsenic	**2.5**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 19:15	7440-38-2	
Barium	**8.2**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 19:15	7440-39-3	
Cadmium	**0.36J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 19:15	7440-43-9	D3
Chromium	**12.9**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 19:15	7440-47-3	
Cobalt	**12.9**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 19:15	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 19:15	7439-92-1	D3
Lithium	**170**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 19:15	7439-93-2	
Molybdenum	**41.2**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 19:15	7439-98-7	
Selenium	**<0.31**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 19:15	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:56	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX7-1024 **Lab ID: 10716376019** Collected: 11/13/24 16:55 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:46	7440-41-7	
Boron	**2870**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:46	7440-42-8	
Calcium	**605000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:46	7440-70-2	
Iron	**162**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:46	7439-89-6	
Magnesium	**196000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:46	7439-95-4	
Manganese	**3460**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:46	7439-96-5	
Potassium	**15200**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:46	7440-09-7	
Sodium	**1620000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 17:00	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 19:22	7440-36-0	D3
Arsenic	**1.0J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 19:22	7440-38-2	D3
Barium	**6.9**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 19:22	7440-39-3	
Cadmium	**0.40J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 19:22	7440-43-9	D3
Chromium	**58.8**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 19:22	7440-47-3	
Cobalt	**14.5**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 19:22	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 19:22	7439-92-1	D3
Lithium	**189**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 19:22	7439-93-2	
Molybdenum	**43.0**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 19:22	7439-98-7	
Selenium	**0.52J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 19:22	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 01:02	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX8-1024 **Lab ID: 10716376020** Collected: 11/13/24 17:10 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:36	7440-41-7	
Boron	**3120**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:36	7440-42-8	
Calcium	**571000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:36	7440-70-2	
Iron	**30.6J**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:36	7439-89-6	
Magnesium	**204000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:36	7439-95-4	
Manganese	**4890**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:36	7439-96-5	
Potassium	**19300**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:36	7440-09-7	
Sodium	**1680000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:19	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:04	7440-36-0	D3
Arsenic	**0.83J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:04	7440-38-2	D3
Barium	**7.3**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:04	7440-39-3	
Cadmium	**0.52**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:04	7440-43-9	
Chromium	**5.1J**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:04	7440-47-3	D3
Cobalt	**17.4**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:04	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:04	7439-92-1	D3
Lithium	**184**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:04	7439-93-2	
Molybdenum	**42.6**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:04	7439-98-7	
Selenium	**0.52J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:04	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:04	7440-28-0	D3

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
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(612)607-1700

ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX9-1024 **Lab ID: 10716376021** Collected: 11/13/24 17:20 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:37	7440-41-7	
Boron	**2890**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:37	7440-42-8	
Calcium	**573000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:37	7440-70-2	
Iron	**21.9J**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:37	7439-89-6	
Magnesium	**205000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:37	7439-95-4	
Manganese	**3030**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:37	7439-96-5	
Potassium	**20800**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:37	7440-09-7	
Sodium	**1530000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:20	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:07	7440-36-0	D3
Arsenic	**1.2J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:07	7440-38-2	D3
Barium	**8.0**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:07	7440-39-3	
Cadmium	**0.28J**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:07	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:07	7440-47-3	D3
Cobalt	**13.8**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:07	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:07	7439-92-1	D3
Lithium	**207**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:07	7439-93-2	
Molybdenum	**40.3**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:07	7439-98-7	
Selenium	**1.1J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:07	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:07	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX10-1024 **Lab ID: 10716376022** Collected: 11/13/24 17:33 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:39	7440-41-7	
Boron	**410**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:39	7440-42-8	
Calcium	**624000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:39	7440-70-2	
Iron	**1190**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:39	7439-89-6	
Magnesium	**160000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:39	7439-95-4	
Manganese	**82.7**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:39	7439-96-5	
Potassium	**10800**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:39	7440-09-7	
Sodium	**2370000**	ug/L	20000	908	20	11/26/24 04:20	11/26/24 16:22	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:10	7440-36-0	D3
Arsenic	**1.2J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:10	7440-38-2	D3
Barium	**11.3**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:10	7440-39-3	
Cadmium	**0.22J**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:10	7440-43-9	D3
Chromium	**184**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:10	7440-47-3	
Cobalt	**24.0**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:10	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:10	7439-92-1	D3
Lithium	**395**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:10	7439-93-2	
Molybdenum	**24.5**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:10	7439-98-7	
Selenium	**1.1J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:10	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:10	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-BAPTD-1024 **Lab ID: 10716376023** Collected: 11/14/24 09:23 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:41	7440-41-7	
Boron	**4150**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:41	7440-42-8	
Calcium	**556000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:41	7440-70-2	
Iron	**160**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:41	7439-89-6	
Magnesium	**234000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:41	7439-95-4	
Manganese	**1290**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:41	7439-96-5	
Potassium	**20100**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:41	7440-09-7	
Sodium	**1640000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:27	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:13	7440-36-0	D3
Arsenic	**1.0J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:13	7440-38-2	D3
Barium	**8.8**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:13	7440-39-3	
Cadmium	**0.34J**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:13	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:13	7440-47-3	D3
Cobalt	**7.2**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:13	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:13	7439-92-1	D3
Lithium	**182**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:13	7439-93-2	
Molybdenum	**32.3**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:13	7439-98-7	
Selenium	**0.80J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:13	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:13	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-BAP-1024 **Lab ID: 10716376024** Collected: 11/14/24 09:53 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:42	7440-41-7	
Boron	**3670**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:42	7440-42-8	
Calcium	**490000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:42	7440-70-2	P6
Iron	**207**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:42	7439-89-6	
Magnesium	**263000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:42	7439-95-4	
Manganese	**130**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:42	7439-96-5	
Potassium	**31000**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:42	7440-09-7	
Sodium	**1460000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:29	7440-23-5	P6
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**0.63J**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:18	7440-36-0	D3
Arsenic	**6.8**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:18	7440-38-2	
Barium	**81.7**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:18	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:18	7440-43-9	D3
Chromium	**5.9J**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:18	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:18	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:18	7439-92-1	D3
Lithium	**147**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:18	7439-93-2	
Molybdenum	**21.2**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:18	7439-98-7	
Selenium	**4.4**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:18	7782-49-2	
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:18	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EB01-1024 **Lab ID: 10716376025** Collected: 11/14/24 10:40 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:46	7440-41-7	
Boron	**<16.0**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:46	7440-42-8	
Calcium	**74.0J**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:46	7440-70-2	
Iron	**9.8J**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:46	7439-89-6	
Magnesium	**<28.9**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:46	7439-95-4	
Manganese	**<0.50**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:46	7439-96-5	
Potassium	**<108**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:46	7440-09-7	
Sodium	**616J**	ug/L	1000	45.4	1	11/26/24 04:20	11/26/24 15:46	7440-23-5	B
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.087**	ug/L	0.50	0.087	1	11/26/24 04:36	11/27/24 10:21	7440-36-0	
Arsenic	**<0.12**	ug/L	0.50	0.12	1	11/26/24 04:36	11/27/24 10:21	7440-38-2	
Barium	**0.13J**	ug/L	0.30	0.070	1	11/26/24 04:36	11/27/24 10:21	7440-39-3	
Cadmium	**<0.030**	ug/L	0.080	0.030	1	11/26/24 04:36	11/27/24 10:21	7440-43-9	
Chromium	**<0.54**	ug/L	2.0	0.54	1	11/26/24 04:36	11/27/24 10:21	7440-47-3	
Cobalt	**<0.095**	ug/L	0.50	0.095	1	11/26/24 04:36	11/27/24 10:21	7440-48-4	
Lead	**<0.18**	ug/L	0.50	0.18	1	11/26/24 04:36	11/27/24 10:21	7439-92-1	
Lithium	**<0.18**	ug/L	0.50	0.18	1	11/26/24 04:36	11/27/24 10:21	7439-93-2	
Molybdenum	**<0.13**	ug/L	0.50	0.13	1	11/26/24 04:36	11/27/24 10:21	7439-98-7	
Selenium	**<0.074**	ug/L	0.50	0.074	1	11/26/24 04:36	11/27/24 10:21	7782-49-2	
Thallium	**<0.026**	ug/L	0.10	0.026	1	11/26/24 04:36	11/27/24 10:21	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 05:02	11/27/24 10:27	7439-97-6	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981521
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376025

METHOD BLANK: 5128372 Matrix: Water
Associated Lab Samples: 10716376025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/27/24 10:08	

LABORATORY CONTROL SAMPLE: 5128373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128374 5128375

Parameter	Units	10717202001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	5.2	102	104	70-130	2	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981523
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012

METHOD BLANK: 5128383 Matrix: Water
Associated Lab Samples: 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/27/24 10:49	

LABORATORY CONTROL SAMPLE: 5128384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	104	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128385 5128386

Parameter	Units	10716376004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.7	4.7	93	93	70-130	0	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 982136 | Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 | Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376001, 10716376002, 10716376003

METHOD BLANK: 5131961 Matrix: Water
Associated Lab Samples: 10716376001, 10716376002, 10716376003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	12/03/24 10:51	

LABORATORY CONTROL SAMPLE: 5131962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5131963 5131964

Parameter	Units	10716376003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.8	4.6	97	92	70-130	5	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981154
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376020, 10716376021, 10716376022, 10716376023, 10716376024, 10716376025

METHOD BLANK: 5126332 Matrix: Water
Associated Lab Samples: 10716376020, 10716376021, 10716376022, 10716376023, 10716376024, 10716376025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/26/24 15:16	
Boron	ug/L	<16.0	150	16.0	11/26/24 15:16	
Calcium	ug/L	<31.8	500	31.8	11/26/24 15:16	
Iron	ug/L	<7.5	50.0	7.5	11/26/24 15:16	
Magnesium	ug/L	<28.9	500	28.9	11/26/24 15:16	
Manganese	ug/L	<0.50	5.0	0.50	11/26/24 15:16	
Potassium	ug/L	<108	2500	108	11/26/24 15:16	
Sodium	ug/L	504J	1000	45.4	11/26/24 15:16	P8

LABORATORY CONTROL SAMPLE: 5126333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1030	103	85-115	
Boron	ug/L	1000	1040	104	85-115	
Calcium	ug/L	20000	19400	97	85-115	
Iron	ug/L	20000	20100	101	85-115	
Magnesium	ug/L	20000	19500	97	85-115	
Manganese	ug/L	1000	1030	103	85-115	
Potassium	ug/L	20000	20100	100	85-115	
Sodium	ug/L	20000	19900	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5126334 5126335

Parameter	Units	10716159001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1010	1050	101	105	70-130	3	20	
Boron	ug/L	238	1000	1000	1260	1300	102	106	70-130	3	20	
Calcium	ug/L	77200	20000	20000	93400	95500	81	92	70-130	2	20	
Iron	ug/L		20000	20000	34500	35300	92	96	70-130	2	20	
Magnesium	ug/L	46100	20000	20000	64400	65700	92	98	70-130	2	20	
Manganese	ug/L		1000	1000	1290	1320	97	101	70-130	3	20	
Potassium	ug/L		20000	20000	28400	29100	116	120	70-130	3	20	
Sodium	ug/L		20000	20000	792000	787000	104	79	70-130	1	20	

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(612)607-1700

QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

MATRIX SPIKE SAMPLE: 5126336

Parameter	Units	10716376024 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	1050	105	70-130	
Boron	ug/L	3670	1000	4690	102	70-130	
Calcium	ug/L	490000	20000	499000	45	70-130	P6
Iron	ug/L	207	20000	19600	97	70-130	
Magnesium	ug/L	263000	20000	279000	78	70-130	
Manganese	ug/L	130	1000	1130	100	70-130	
Potassium	ug/L	31000	20000	54300	116	70-130	
Sodium	ug/L	1460000	20000	1320000	-734	70-130	P6

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981497
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376001, 10716376002, 10716376003, 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012, 10716376013, 10716376014, 10716376015, 10716376016, 10716376017, 10716376018, 10716376019

METHOD BLANK: 5128244
Matrix: Water
Associated Lab Samples: 10716376001, 10716376002, 10716376003, 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012, 10716376013, 10716376014, 10716376015, 10716376016, 10716376017, 10716376018, 10716376019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	12/05/24 14:18	
Boron	ug/L	<16.0	150	16.0	12/05/24 14:18	
Calcium	ug/L	<31.8	500	31.8	12/05/24 14:18	
Iron	ug/L	<7.5	50.0	7.5	12/05/24 14:18	
Magnesium	ug/L	<28.9	500	28.9	12/05/24 14:18	
Manganese	ug/L	<0.50	5.0	0.50	12/05/24 14:18	
Potassium	ug/L	<108	2500	108	12/05/24 14:18	
Sodium	ug/L	<45.4	1000	45.4	12/05/24 14:18	

LABORATORY CONTROL SAMPLE: 5128245

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	877	88	85-115	
Boron	ug/L	1000	985	98	85-115	
Calcium	ug/L	20000	17600	88	85-115	
Iron	ug/L	20000	17500	88	85-115	
Magnesium	ug/L	20000	17300	87	85-115	
Manganese	ug/L	1000	882	88	85-115	
Potassium	ug/L	20000	17900	89	85-115	
Sodium	ug/L	20000	17900	89	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128246 5128247

Parameter	Units	10716376001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	885	901	88	90	70-130	2	20	
Boron	ug/L	332	1000	1000	1360	1380	103	105	70-130	2	20	
Calcium	ug/L	482000	20000	20000	510000	508000	141	130	70-130	0	20	P6
Iron	ug/L	3410	20000	20000	21000	21300	88	90	70-130	2	20	
Magnesium	ug/L	191000	20000	20000	213000	212000	110	107	70-130	0	20	
Manganese	ug/L	1290	1000	1000	2200	2210	91	92	70-130	1	20	
Potassium	ug/L	10700	20000	20000	31200	31400	102	103	70-130	1	20	
Sodium	ug/L	805000	20000	20000	817000	783000	56	-114	70-130	4	20	P6

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

MATRIX SPIKE SAMPLE: 5128248

Parameter	Units	10716376011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	898	90	70-130	
Boron	ug/L	15000	1000	15400	41	70-130	P6
Calcium	ug/L	680000	20000	639000	-203	70-130	P6
Iron	ug/L	39.9J	20000	17600	88	70-130	
Magnesium	ug/L	255000	20000	252000	-18	70-130	P6
Manganese	ug/L	1030	1000	1830	80	70-130	
Potassium	ug/L	27700	20000	46800	96	70-130	
Sodium	ug/L	2650000	20000	2520000	-652	70-130	P6

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981500
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376020, 10716376021, 10716376022, 10716376023, 10716376024, 10716376025

METHOD BLANK: 5128271 Matrix: Water
Associated Lab Samples: 10716376020, 10716376021, 10716376022, 10716376023, 10716376024, 10716376025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/27/24 09:27	
Arsenic	ug/L	<0.12	0.50	0.12	11/27/24 09:27	
Barium	ug/L	<0.070	0.30	0.070	11/27/24 09:27	
Cadmium	ug/L	<0.030	0.080	0.030	11/27/24 09:27	
Chromium	ug/L	<0.54	2.0	0.54	11/27/24 09:27	
Cobalt	ug/L	<0.095	0.50	0.095	11/27/24 09:27	
Lead	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Lithium	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Molybdenum	ug/L	<0.13	0.50	0.13	11/27/24 09:27	
Selenium	ug/L	<0.074	0.50	0.074	11/27/24 09:27	
Thallium	ug/L	<0.026	0.10	0.026	11/27/24 09:27	

LABORATORY CONTROL SAMPLE: 5128272

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	104	104	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	105	105	85-115	
Cadmium	ug/L	100	102	102	85-115	
Chromium	ug/L	100	110	110	85-115	
Cobalt	ug/L	100	109	109	85-115	
Lead	ug/L	100	107	107	85-115	
Lithium	ug/L	100	106	106	85-115	
Molybdenum	ug/L	100	98.9	99	85-115	
Selenium	ug/L	100	106	106	85-115	
Thallium	ug/L	100	107	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	100	100	102	101	102	101	70-130	1	20	
Arsenic	ug/L	8.3	100	100	115	111	107	103	70-130	3	20	
Barium	ug/L	26.9	100	100	125	126	98	99	70-130	1	20	
Cadmium	ug/L	ND	100	100	99.6	98.9	100	99	70-130	1	20	
Chromium	ug/L	ND	100	100	109	108	107	106	70-130	1	20	
Cobalt	ug/L	ND	100	100	103	101	102	101	70-130	1	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	100	100	104	102	104	102	70-130	2	20	
Lithium	ug/L	47.0	100	100	159	147	112	100	70-130	8	20	
Molybdenum	ug/L	5.7	100	100	106	105	100	99	70-130	1	20	
Selenium	ug/L	ND	100	100	108	100	108	100	70-130	8	20	
Thallium	ug/L	ND	100	100	102	101	102	101	70-130	1	20	

MATRIX SPIKE SAMPLE: 5128275

Parameter	Units	10716376023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.44	100	100	100	70-130	
Arsenic	ug/L	1.0J	100	108	107	70-130	
Barium	ug/L	8.8	100	109	100	70-130	
Cadmium	ug/L	0.34J	100	97.3	97	70-130	
Chromium	ug/L	<2.7	100	109	106	70-130	
Cobalt	ug/L	7.2	100	110	103	70-130	
Lead	ug/L	<0.90	100	104	104	70-130	
Lithium	ug/L	182	100	274	92	70-130	
Molybdenum	ug/L	32.3	100	134	101	70-130	
Selenium	ug/L	0.80J	100	102	101	70-130	
Thallium	ug/L	<0.13	100	104	104	70-130	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981501 | Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 | Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10716376001, 10716376002, 10716376003, 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012, 10716376013, 10716376014, 10716376015, 10716376016, 10716376017, 10716376018, 10716376019

METHOD BLANK: 5128276 Matrix: Water

Associated Lab Samples: 10716376001, 10716376002, 10716376003, 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012, 10716376013, 10716376014, 10716376015, 10716376016, 10716376017, 10716376018, 10716376019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.061	0.50	0.061	12/04/24 13:54	
Arsenic	ug/L	<0.13	0.50	0.13	12/04/24 13:54	
Barium	ug/L	<0.090	0.30	0.090	12/04/24 13:54	
Cadmium	ug/L	<0.037	0.080	0.037	12/04/24 13:54	
Chromium	ug/L	<0.50	2.0	0.50	12/04/24 13:54	
Cobalt	ug/L	<0.040	0.50	0.040	12/04/24 13:54	
Lead	ug/L	<0.065	0.50	0.065	12/04/24 13:54	
Lithium	ug/L	<0.20	0.50	0.20	12/04/24 13:54	
Molybdenum	ug/L	<0.11	0.50	0.11	12/04/24 13:54	
Selenium	ug/L	<0.061	0.50	0.061	12/04/24 13:54	
Silver	ug/L	<0.058	0.50	0.058	12/04/24 13:54	
Thallium	ug/L	<0.027	0.10	0.027	12/04/24 13:54	

LABORATORY CONTROL SAMPLE: 5128277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	95.8	96	85-115	
Arsenic	ug/L	100	100	100	85-115	
Barium	ug/L	100	97.7	98	85-115	
Cadmium	ug/L	100	99.7	100	85-115	
Chromium	ug/L	100	105	105	85-115	
Cobalt	ug/L	100	105	105	85-115	
Lead	ug/L	100	101	101	85-115	
Lithium	ug/L	100	88.9	89	85-115	
Molybdenum	ug/L	100	99.0	99	85-115	
Selenium	ug/L	100	91.2	91	85-115	
Silver	ug/L	50	50.2	100	85-115	
Thallium	ug/L	100	102	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128278 5128279

Parameter	Units	10716376002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.30	100	100	98.4	100	98	100	70-130	2	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128278 5128279

Parameter	Units	10716376002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	7.4	100	100	115	116	107	108	70-130	1	20	
Barium	ug/L	17.4	100	100	117	118	100	101	70-130	1	20	
Cadmium	ug/L	<0.18	100	100	95.3	96.5	95	97	70-130	1	20	
Chromium	ug/L	<2.5	100	100	104	105	103	104	70-130	0	20	
Cobalt	ug/L	1.3J	100	100	108	111	107	110	70-130	2	20	
Lead	ug/L	<0.32	100	100	99.0	101	99	101	70-130	2	20	
Lithium	ug/L	253	100	100	343	339	90	85	70-130	1	20	
Molybdenum	ug/L	9.2	100	100	115	114	106	105	70-130	1	20	
Selenium	ug/L	0.34J	100	100	100	97.9	100	98	70-130	3	20	
Silver	ug/L	<0.29	50	50	47.3	47.5	94	95	70-130	1	20	
Thallium	ug/L	<0.13	100	100	100	102	100	102	70-130	2	20	

MATRIX SPIKE SAMPLE: 5128280

Parameter	Units	10716376012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.30	100	102	101	70-130	
Arsenic	ug/L	4.0	100	113	109	70-130	
Barium	ug/L	10.4	100	113	103	70-130	
Cadmium	ug/L	<0.18	100	97.2	97	70-130	
Chromium	ug/L	2.9J	100	103	100	70-130	
Cobalt	ug/L	3.7	100	111	107	70-130	
Lead	ug/L	0.70J	100	103	102	70-130	
Lithium	ug/L	389	100	492	103	70-130	
Molybdenum	ug/L	264	100	377	113	70-130	
Selenium	ug/L	0.76J	100	102	102	70-130	
Silver	ug/L	<0.29	50	46.7	93	70-130	
Thallium	ug/L	0.69	100	91.8	91	70-130	

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QUALIFIERS

Project: L1800893 WG2404282
Pace Project No.: 10716376

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
P8	Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10716376001	**CH-CCR-M67A-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376002	**CH-CCR-M46A-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376003	**CH-CCR-M65A-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376004	**CH-CCR-HUNTB-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376005	**CH-CCR-FAP-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376006	**CH-CCR-EW01-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376007	**CH-CCR-EW02-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376008	**CH-CCR-GSX4-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376009	**CH-CCR-EW03-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376010	**CH-CCR-GSX3-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376011	**CH-CCR-GSX1R-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376012	**CH-CCR-EW04-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376013	**CH-CCR-PETRO-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376014	**CH-CCR-TANNER-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376015	**CH-CCR-TWX3-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376016	**CH-CCR-TWX4-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376017	**CH-CCR-TWX5-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376018	**CH-CCR-TWX6-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376019	**CH-CCR-TWX7-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376020	**CH-CCR-TWX8-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376021	**CH-CCR-TWX9-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376022	**CH-CCR-TWX10-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376023	**CH-CCR-BAPTD-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376024	**CH-CCR-BAP-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376025	**CH-CCR-EB01-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376001	**CH-CCR-M67A-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376002	**CH-CCR-M46A-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376003	**CH-CCR-M65A-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376004	**CH-CCR-HUNTB-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376005	**CH-CCR-FAP-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376006	**CH-CCR-EW01-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376007	**CH-CCR-EW02-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376008	**CH-CCR-GSX4-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376009	**CH-CCR-EW03-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376010	**CH-CCR-GSX3-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376011	**CH-CCR-GSX1R-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376012	**CH-CCR-EW04-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376013	**CH-CCR-PETRO-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376014	**CH-CCR-TANNER-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376015	**CH-CCR-TWX3-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376016	**CH-CCR-TWX4-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376017	**CH-CCR-TWX5-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376018	**CH-CCR-TWX6-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376019	**CH-CCR-TWX7-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376020	**CH-CCR-TWX8-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376021	**CH-CCR-TWX9-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376022	**CH-CCR-TWX10-1024**	EPA 200.8	981500	EPA 200.8	981756

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10716376023	**CH-CCR-BAPTD-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376024	**CH-CCR-BAP-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376025	**CH-CCR-EB01-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376001	**CH-CCR-M67A-1024**	EPA 245.1	982136	EPA 245.1	982326
10716376002	**CH-CCR-M46A-1024**	EPA 245.1	982136	EPA 245.1	982326
10716376003	**CH-CCR-M65A-1024**	EPA 245.1	982136	EPA 245.1	982326
10716376004	**CH-CCR-HUNTB-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376005	**CH-CCR-FAP-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376006	**CH-CCR-EW01-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376007	**CH-CCR-EW02-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376008	**CH-CCR-GSX4-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376009	**CH-CCR-EW03-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376010	**CH-CCR-GSX3-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376011	**CH-CCR-GSX1R-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376012	**CH-CCR-EW04-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376025	**CH-CCR-EB01-1024**	EPA 245.1	981521	EPA 245.1	981753

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Sub-Contract Chain of Custody

Batch Date/Time: 11/19/24 10:18
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2404282
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 12/02/24
ESC Purchase Order #: L1800893
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

WO#: 10716376

10716376

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only
CH-CCR-W67A-1024	WW	AZ	11/12/24 12:37	Metals	1. L1800893-01	200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-W46A-1024	WW	AZ	11/12/24 15:13	Metals	2. L1800893-02	200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-W65A-1024	WW	AZ	11/12/24 16:40	Metals	3. L1800893-03	200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-HUNTB-1024	WW	AZ	11/12/24 17:27	Metals	4. L1800893-04	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-FAP-1024	WW	AZ	11/13/24 11:48	Metals	5. L1800893-05	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, AGG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EW01-1024	WW	AZ	11/13/24 12:20	Metals	6. L1800893-06	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EW02-1024	WW	AZ	11/13/24 12:42	Metals	7. L1800893-07	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-GSX4-1024	WW	AZ	11/13/24 12:59	Metals	8. L1800893-08	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EW03-1024	WW	AZ	11/13/24 13:17	Metals	9. L1800893-09	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-GSX3-1024	WW	AZ	11/13/24 13:37	Metals	10. L1800893-10	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-GSX1R-1024	WW	AZ	11/13/24 13:52	Metals	11. L1800893-11	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EW04-1024	WW	AZ	11/13/24 14:12	Metals	12. L1800893-12	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-PETRO-1024	WW	AZ	11/13/24 15:21	Metals	13. L1800893-13	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TANNER-1024	WW	AZ	11/13/24 15:45	Metals	14. L1800893-14	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX3-1024	WW	AZ	11/13/24 16:04	Metals	15. L1800893-15	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX4-1024	WW	AZ	11/13/24 16:20	Metals	16. L1800893-16	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX5-1024	WW	AZ	11/13/24 16:38	Metals	17. L1800893-17	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX6-1024	WW	AZ	11/13/24 16:46	Metals	18. L1800893-18	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX7-1024	WW	AZ	11/13/24 16:55	Metals	19. L1800893-19	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX8-1024	WW	AZ	11/13/24 17:10	Metals	20. L1800893-20	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX9-1024	WW	AZ	11/13/24 17:20	Metals	21. L1800893-21	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX10-1024	WW	AZ	11/13/24 17:33	Metals	22. L1800893-22	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-BAPTD-1024	WW	AZ	11/14/24 09:23	Metals	23. L1800893-23	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-BAP-1024	WW	AZ	11/14/24 09:53	Metals	24. L1800893-24	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EB01-1024	WW	AZ	11/14/24 10:40	Metals	25. L1800893-25	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.

*= Container used for multiple Samples and/or Analyses

001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025

Relinquished by:		Date 11-19-24	1005
Received by:	DNW Pace	Date 11/20/24	
Relinquished by:		Date	
Received by:		Date	NO ICE

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTJ PROJECT #:

WO#: 10716376

PM: TKL Due Date: 12/06/24

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: _____ ☑ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☐ YES ☑ NO Seals Intact: ☐ YES ☑ NO Biological Tissue Frozen: ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other Temp Blank: ☐ YES ☑ NO Type of Ice: ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	Were All Container Temps taken: ☐ YES ☐ NO ☑ N/A
Correction Factor: +0.1 Cooler Temp Read w/Temp Blank: _____ °C Cooler Temp Corrected w/Temp Blank: _____ °C	Average Corrected Temp (no Temp Blank Only): _____ °C
NOTE: Temp should be above freezing to 6°C.	☑ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): _____	Initials & Date of Person Examining Contents: JNW 11/20/24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☐	☑	3. Pace
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☑	☐ ☐	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? NOTE: If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		11. If NO, write ID/Date/Time of container below: MISSING 1x BP3N (009) ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS NOTE: If adding preservation to the container, verify with the PM first. Clients may require adding preservative to the field and equipment blanks when this occurs.	☑ ☑ ☐	☐ ☐ ☐	☐ ☐ ☑	12. Sample #: 001-025 ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate Positive for Residual Chlorine: ☐ YES ☐ NO pH Paper Lot # (Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip) ☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers? Headspace in VOA Vials (greater than 6mm)?	☐ ☐	☐ ☐	☑ ☑	14. ☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present? Trip Blank Custody Seals Present?	☐ ☐	☐ ☐	☑ ☑	15. Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION FIELD DATA REQUIRED: ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ Date: 11/21/24

NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: JNW Line: 3

Workorder #: _____

No Temp Blank		
Read Temp	Corrected Temp	Average temp

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

preserved samples, no ice

Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature
4257 0933 7007	16.2
4257 0933 7018	17.5
4257 0933 7029	18.1

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition? YES	In Compliance After Addition? NO	Initials
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800893	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	2-Dec	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals	Metals	Residual Chlorine (Y/N)	
1	CH-CCR-W67A-1024	WT				12-Nov	12:37		1								1		X			200.7-BICP, CAICP, BEICP, LIIC
2	CH-CCR-W46A-1024	WT				12-Nov	15:13		1								1		X			200.7-BICP, CAICP, BEICP, LIIC
3	CH-CCR-W65A-1024	WT				12-Nov	16:40		1								1		X			200.7-BICP, CAICP, BEICP, LIIC
4	CH-CCR-HUNTB-1024	WT				12-Nov	17:27		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
5	CH-CCR-FAP-1024	WT				13-Nov	11:48		1								1			X		Hg, 200.7-BICP, CAICP, BEICP,
6	CH-CCR-EW01-1024	WT				13-Nov	12:20		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
7	CH-CCR-EW02-1024	WT				13-Nov	12:42		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
8	CH-CCR-GSX4-1024	WT				13-Nov	12:59		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
9	CH-CCR-EW03-1024	WT				13-Nov	13:17		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
10	CH-CCR-GSX3-1024	WT				13-Nov	13:37		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
11	CH-CCR-GSX1R-1024	WT				13-Nov	13:52		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
12	CH-CCR-EW04-1024	WT				13-Nov	14:12		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	19-Nov	10:55				
Pace Analytical Batch: WG2404282							
Pace Analytical SDGs: L1800893							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: **DATE Signed:**

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800893	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	2-Dec	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test	Metals	Metals	Residual Chlorine (Y/N)	
1	CH-CCR-PETRO-1024	WT				13-Nov	15:21		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
2	CH-CCR-TANNER-1024	WT				13-Nov	15:45		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
3	CH-CCR-TWX3-1024	WT				13-Nov	16:04		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
4	CH-CCR-TWX4-1024	WT				13-Nov	16:20		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
5	CH-CCR-TWX5-1024	WT				13-Nov	16:38		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
6	CH-CCR-TWX6-1024	WT				13-Nov	16:46		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
7	CH-CCR-TWX7-1024	WT				13-Nov	16:55		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
8	CH-CCR-TWX8-1024	WT				13-Nov	17:10		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
9	CH-CCR-TWX9-1024	WT				13-Nov	17:20		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
10	CH-CCR-TWX10-1024	WT				13-Nov	17:33		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
11	CH-CCR-BAPTD-1024	WT				14-Nov	9:23		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,
12	CH-CCR-BAP-1024	WT				14-Nov	9:53		1								1			X			Hg, 200.7-BICP, CAICP, BEICP,

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	19-Nov	10:55				
Pace Analytical Batch: WG2404282							
Pace Analytical SDGs: L1800893							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	**DATE Signed:**				

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800893	Pace Quote:	
Phone:	(615) 773-9756 Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	2-Dec	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals	Metals	Residual Chlorine (Y/N)	
1	CH-CCR-EB01-1024	WT				14-Nov	10:40		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	19-Nov	10:55				
Pace Analytical Batch: WG2404282							
Pace Analytical SDGs: L1800893							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	**DATE Signed:**				

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 11, 2024
Sample Received: November 18, 2024
Analysis Completed: December 02, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-EVAP-MW85C-1124	0.5 ± 0.2	< 0.8	0.5 ± 0.2

Date of Analysis	11/27/2024 22:13	11/27/2024 22:13	11/27/2024 22:13

Robert L. Metzger, Ph.D., C.H.P. 12/2/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 11, 2024 (Sample Date) 11:08 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/27/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/27/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/27/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75808

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-EVAP-MW85C-1124

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST.• CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 11, 2024
Sample Received: November 18, 2024
Analysis Completed: December 02, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-EVAP-FD01-1124	0.6 ± 0.2	1.1 ± 0.4	1.7 ± 0.4

Date of Analysis	11/28/2024 2:14	11/28/2024 2:14	11/28/2024 2:14

Robert L. Metzger, Ph.D., C.H.P. 12/2/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 11, 2024 (Sample Date) 17:38 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	1.7 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	1.1 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75809

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-EVAP-FD01-1124

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information

Name:	Cameron Corley/505-860-3619 Pam Norris/505-598-8781
Company	Arizona Public Service
Address	~~PO Box 355, MS 4915~~ ~~Fruitland, NM 87416~~
Phone	
Site	APS ~~Four Corners Power Plant~~ Cholla Power Plant Evaporands

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225
Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-EVAP-MW35C-1124	11-11-24	1108							X	X	X						75808
CH-EVAP-FD01-1124	11-11-24	1738							X	X	X						75809

Sample Receipt

Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO#: ~~100622094~~
300592346

Instructions/Comments
Method HPGe

11-18-24

Relinquished By: Dan Hartman	Company: WSP	Date/time: 1545	Received By: Pat Hennessy		Company:	Date/time: 11-18-24 1545
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 07, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-EVAP-MW80A-1124	< 0.5	1.4 ± 0.3	1.4 ± 0.3

Date of Analysis	11/21/2024 20:36	11/21/2024 20:36	11/21/2024 20:36

11/25/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 7, 2024 (Sample Date) 10:28 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/21/2024	1.4 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/21/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/21/2024	1.4 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75775

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-EVAP-MW80A-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 07, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-EVAP-MW81A-1124	0.8 ± 0.2	< 0.7	0.8 ± 0.2

Date of Analysis	11/22/2024	11/22/2024	11/22/2024
	0:38	0:38	0:38

Robert L. Metzger, Ph.D., C.H.P. 11/25/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 7, 2024 (Sample Date) 11:25 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/22/2024	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/22/2024	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/22/2024	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75776

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-EVAP-MW81A-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 07, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-EVAP-MW83A-1124	1.1 ± 0.2	1.7 ± 0.3	2.8 ± 0.4

Date of Analysis	11/22/2024	11/22/2024	11/22/2024
	4:40	4:40	4:40

11/25/2024
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 7, 2024 (Sample Date) 14:59 (Sample Time) (24 hour clock)

_____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number)

_____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/22/2024	2.8 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/22/2024	1.1 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/22/2024	1.7 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

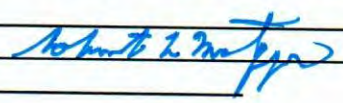
Specimen Number: RSE75777

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-EVAP-MW83A-1124

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 07, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-EVAP-MW84A-1124	< 0.5	1.2 ± 0.3	1.2 ± 0.3

Date of Analysis	11/22/2024	11/22/2024	11/22/2024
	8:43	8:43	8:43

Robert L. Metzger, Ph.D., C.H.P. 11/25/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 7, 2024 (Sample Date) 16:18 (Sample Time) (24 hour clock)

_____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number)

_____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/22/2024	1.2 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/22/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/22/2024	1.2 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75778

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-EVAP-MW84A-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information	
Name:	Cody Miller/480-209-6529
Company	Arizona Public Service
Address	4801 Cholla Lake Rd, Joseph City, AZ 86032
Phone	928-587-0319
Site	APS Cholla Power Plant ~~(BAP)~~ Evap Ponds

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-EVAP-MW80A-1124	11-7-24	1028	GW						X	X	X					75	775
CH-EVAP-MW81A-1124		1125	GW						X	X	X					75	776
CH-EVAP-MW83A-1124		1459	GW						X	X	X					75	777
CH-EVAP-MW84A-1124		1618	GW						X	X	X					75	778
			GW						X	X	X						
			GW						X	X	X						
			GW						X	X	X						
			GW						X	X	X						
			GW						X	X	X						
			GW						X	X	X						

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300592346

11-8-24

Instructions/Comments
Method HPGe

Relinquished By: BEL	Company: WSP	Date/time: 1228	Received By: Pat Flannery		Company: RSE	Date/time: 11/8/24	12:28
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: December 11, 2024
Sample Received: December 16, 2024
Analysis Completed: January 09, 2025

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW80-1224	< 0.5	< 0.8	< 0.8
Date of Analysis	12/25/2024 23:29	12/25/2024 23:29	12/25/2024 23:29

1/9/2025

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

December 11, 2024 (Sample Date) 10:23 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	12/25/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	12/25/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	12/25/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

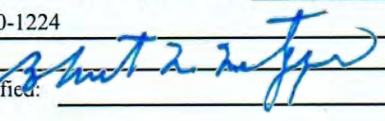
Specimen Number: RSE75997

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW80-1224

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: December 11, 2024
Sample Received: December 16, 2024
Analysis Completed: January 09, 2025

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW81-1224	< 0.5	1.4 ± 0.4	1.4 ± 0.4

Date of Analysis	12/26/2024	12/26/2024	12/26/2024
	3:31	3:31	3:31

1/9/2025

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

December 11, 2024 (Sample Date) 11:19 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	12/26/2024	1.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	12/26/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	12/26/2024	1.4 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75998

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW81-1224

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: December 11, 2024
Sample Received: December 16, 2024
Analysis Completed: January 09, 2025

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW83-1224	< 0.5	0.9 ± 0.4	0.9 ± 0.4

Date of Analysis	12/26/2024	12/26/2024	12/26/2024
	7:33	7:33	7:33

1/9/2025

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

December 11, 2024 (Sample Date) 13:46 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	12/26/2024	0.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	12/26/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	12/26/2024	0.9 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

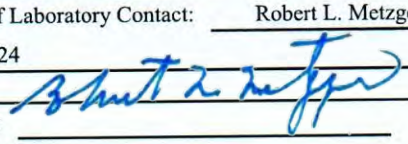
Specimen Number: RSE75999

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW83-1224

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: December 11, 2024
Sample Received: December 16, 2024
Analysis Completed: January 09, 2025

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW84-1224	< 0.5	1.2 ± 0.4	1.2 ± 0.4

Date of Analysis	12/26/2024 11:36	12/26/2024 11:36	12/26/2024 11:36

1/9/2025

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

December 11, 2024 (Sample Date) 14:38 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	12/26/2024	1.2 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	12/26/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	12/26/2024	1.2 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE76000

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW84-1224

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: December 11, 2024
Sample Received: December 16, 2024
Analysis Completed: January 09, 2025

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW85C-1224	< 0.8	2.2 ± 0.6	2.2 ± 0.6
Date of Analysis	1/8/2025 22:12	1/8/2025 22:12	1/8/2025 22:12

1/9/2025

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

December 11, 2024 (Sample Date) 15:36 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	1/8/2025	2.2 ± 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	1/8/2025	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 228	4030	1/8/2025	2.2 ± 0.6		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE76001

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW85C-1224

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: December 12, 2024
Sample Received: December 16, 2024
Analysis Completed: January 09, 2025

Sample ID	Radium 226 Activity Method 903.1 (pCi/L)	Radium 228 Activity Method 904 (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD01-1224	< 0.8	2.1 ± 0.6	2.1 ± 0.6

Date of Analysis	1/9/2025 02:12	1/9/2025 02:12	1/9/2025 02:12

1/9/2025

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

December 12, 2024 (Sample Date) 10:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	1/9/2025	2.1 ± 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	1/9/2025	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 228	4030	1/9/2025	2.1 ± 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE76002

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD01-1224

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information	
Name:	**Cody Miller/480-209-6529**
Company	**Arizona Public Service**
Address	**4801 Cholla Lake Rd, Joseph City, AZ 86032**
Phone	**928-587-0319**
Site	**APS Cholla Power Plant (EVAP)**

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air
CH-CCR-MW80-1224	12/11/2024	1023	**GW**						X	X	X					75997
CH-CCR-MW81-1224	12/11/2024	1119	**GW**						X	X	X					75998
CH-CCR-MW83-1224	12/11/2024	1346	**GW**						X	X	X					75999
CH-CCR-MW84-1224	12/11/2024	1438	**GW**						X	X	X					76000
CH-CCR-MW85C-1224	12/11/2024	1536	**GW**						X	X	X					76001
CH-CCR-FD01-1224	12/12/2024	1020	**GW**						X	X	X					76002

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300592346

Instructions/Comments
Method HPGe

Relinguished By:	Company: WSP	Date/time: 12/12/24	Received By:		Company: RSE	Date/time: 12/16/24 14:08
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

ANALYTICAL REPORT

September 11, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

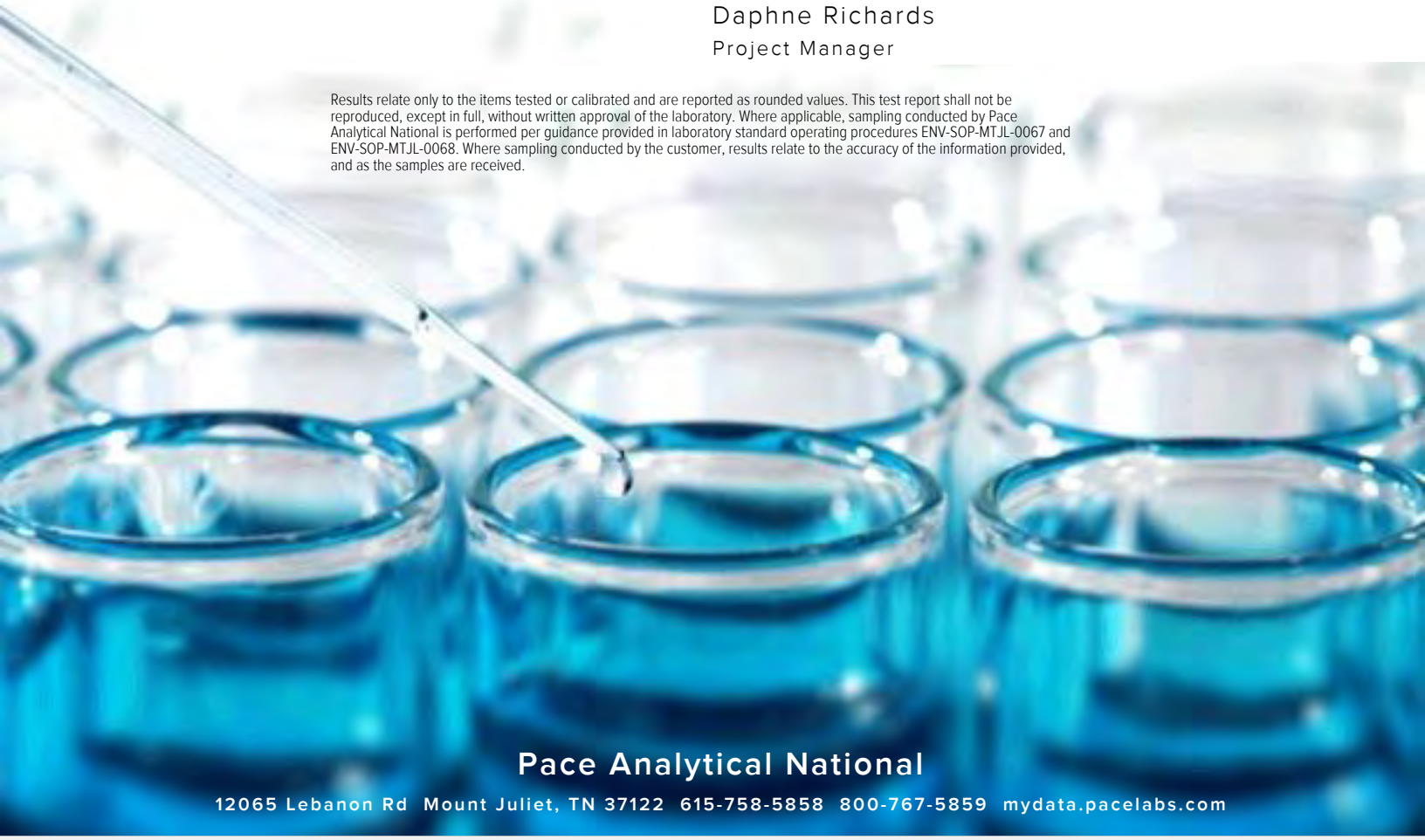
Sample Delivery Group:	L1773018
Samples Received:	08/30/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-EVAP-MW84A-0824 L1773018-01 WW

Collected by: Brad Hartman | Collected date/time: 08/28/24 16:22 | Received date/time: 08/30/24 13:25

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2353731	1	09/11/24 00:00	09/11/24 00:00	-	Minneapolis, MN 55414

CH-EVAP-MW83A-0824 L1773018-02 WW

Collected by: Brad Hartman | Collected date/time: 08/28/24 17:40 | Received date/time: 08/30/24 13:25

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2353731	1	09/11/24 00:00	09/11/24 00:00	-	Minneapolis, MN 55414

CH-EVAP-MW81A-0824 L1773018-03 WW

Collected by: Brad Hartman | Collected date/time: 08/28/24 19:06 | Received date/time: 08/30/24 13:25

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2353731	1	09/11/24 00:00	09/11/24 00:00	-	Minneapolis, MN 55414

CH-EVAP-MW80A-0824 L1773018-04 WW

Collected by: Brad Hartman | Collected date/time: 08/29/24 10:02 | Received date/time: 08/30/24 13:25

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2353731	1	09/11/24 00:00	09/11/24 00:00	-	Minneapolis, MN 55414

CH-EVAP-MW85C-0824 L1773018-05 WW

Collected by: Brad Hartman | Collected date/time: 08/29/24 13:51 | Received date/time: 08/30/24 13:25

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2353731	1	09/11/24 00:00	09/11/24 00:00	-	Minneapolis, MN 55414

CH-EVAP-FD01-0824 L1773018-06 WW

Collected by: Brad Hartman | Collected date/time: 08/29/24 13:51 | Received date/time: 08/30/24 13:25

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2353731	1	09/11/24 00:00	09/11/24 00:00	-	Minneapolis, MN 55414

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Project Narrative

L1773018 -01, -02, -03, -04, -05, -06 contains subout data that is included after the chain of custody.

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 B,Be,Ca,Li, Hg 250mlHDPE-HNO3	200.8 Metals 250mlHDPE-HNO3	Cl, Fl, SO4, pH 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres							Remarks	Sample # (lab only)
CH-EVAP-MW34A-0824		WW		8-28-24	1622	4	X	X	X	X								
CH-EVAP-MW33A-0824		WW		8-28-24	1740	4	X	X	X	X								
CH-EVAP-MW31A-0824		WW		8-28-24	1906	4	X	X	X	X								
CH-EVAP-MW30A-0824		WW		8-29-24	1002	4	X	X	X	X								
CH-EVAP-MW32A-0824		WW		8-29-24	1351	4	X	X	X	X								
CH-EVAP-FD01-0824		WW		8-29-24	1135	4	X	X	X	X								
		WW				4	X	X	X	X								

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1773018

Table #

Acctnum: AMECTAZ
Template: T259194
Prelogin: P1097457
PM: 288 - Daphne Richards
PB:

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.8 Metals-ASG,BAG,CDG,COG,CRG,MOG,PBG,SBG,SEG,TLG. Sub to Pace MN

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	__NP __Y __N
COC Signed/Accurate:	__Y __N
Bottles arrive intact:	__Y __N
Correct bottles used:	__Y __N
Sufficient volume sent:	__Y __N
If Applicable	
VOA Zero Headspace:	__Y __N
Preservation Correct/Checked:	__Y __N
RAD Screen <0.5 mR/hr:	__Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	8-30-24	0913			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

September 10, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1773018 WG2353731
Pace Project No.: 10706419

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on August 31, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1773018 WG2353731
Pace Project No.: 10706419

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1773018 WG2353731
Pace Project No.: 10706419

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10706419001	**CH-EVAP-MW84A-0824**	Water	08/28/24 16:22	08/31/24 09:00
10706419002	**CH-EVAP-MW83A--0824**	Water	08/28/24 17:40	08/31/24 09:00
10706419003	**CH-EVAP-MW81A-0824**	Water	08/28/24 19:06	08/31/24 09:00
10706419004	**CH-EVAP-MW80A-0824**	Water	08/29/24 10:02	08/31/24 09:00
10706419005	**CH-EVAP-MW85C-0824**	Water	08/29/24 13:51	08/31/24 09:00
10706419006	**CH-EVAP-FD01-0824**	Water	08/29/24 13:51	08/31/24 09:00

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1773018 WG2353731
Pace Project No.: 10706419

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10706419001	**CH-EVAP-MW84A-0824**	EPA 200.7	SMB	3	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10706419002	**CH-EVAP-MW83A--0824**	EPA 200.7	SMB	3	PASI-M
		EPA 200.8	DJM, NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10706419003	**CH-EVAP-MW81A-0824**	EPA 200.7	SMB	3	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10706419004	**CH-EVAP-MW80A-0824**	EPA 200.7	SMB	3	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10706419005	**CH-EVAP-MW85C-0824**	EPA 200.7	SMB	3	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10706419006	**CH-EVAP-FD01-0824**	EPA 200.7	SMB	3	PASI-M
		EPA 200.8	DJM, NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1773018 WG2353731
Pace Project No.: 10706419

Sample: CH-EVAP-MW84A-0824 **Lab ID: 10706419001** Collected: 08/28/24 16:22 Received: 08/31/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis							
Beryllium	**<0.44**	ug/L	5.0	1	09/05/24 12:48	09/06/24 12:48	7440-41-7	
Boron	**676**	ug/L	150	1	09/05/24 12:48	09/06/24 12:48	7440-42-8	
Calcium	**869000**	ug/L	500	1	09/05/24 12:48	09/06/24 12:48	7440-70-2	P6
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis							
Antimony	**<0.17**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:07	7440-36-0	D3
Arsenic	**11.1**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:07	7440-38-2	
Barium	**33.4**	ug/L	0.60	2	09/05/24 13:02	09/09/24 14:07	7440-39-3	
Cadmium	**0.080J**	ug/L	0.16	2	09/05/24 13:02	09/09/24 14:07	7440-43-9	D3
Chromium	**1.3J**	ug/L	4.0	2	09/05/24 13:02	09/09/24 14:07	7440-47-3	D3
Cobalt	**6.1**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:07	7440-48-4	
Lead	**0.49J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:07	7439-92-1	D3
Lithium	**214**	ug/L	1.0	2	09/05/24 13:02	09/06/24 23:51	7439-93-2	
Molybdenum	**25.5**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:07	7439-98-7	
Selenium	**0.59J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:07	7782-49-2	D3
Thallium	**0.15J**	ug/L	0.20	2	09/05/24 13:02	09/09/24 14:07	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis							
Mercury	**<0.074**	ug/L	0.20	1	09/05/24 13:57	09/06/24 11:23	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1773018 WG2353731
Pace Project No.: 10706419

Sample: CH-EVAP-MW83A--0824 **Lab ID: 10706419002** Collected: 08/28/24 17:40 Received: 08/31/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis							
Beryllium	**<0.44**	ug/L	5.0	1	09/05/24 12:48	09/06/24 12:53	7440-41-7	
Boron	**887**	ug/L	150	1	09/05/24 12:48	09/06/24 12:53	7440-42-8	
Calcium	**956000**	ug/L	500	1	09/05/24 12:48	09/06/24 12:53	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis							
Antimony	**<0.17**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:31	7440-36-0	D3
Arsenic	**2.3**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:31	7440-38-2	
Barium	**46.3**	ug/L	0.60	2	09/05/24 13:02	09/09/24 14:31	7440-39-3	
Cadmium	**<0.061**	ug/L	0.16	2	09/05/24 13:02	09/09/24 14:31	7440-43-9	D3
Chromium	**2.0J**	ug/L	4.0	2	09/05/24 13:02	09/09/24 14:31	7440-47-3	D3
Cobalt	**4.9**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:31	7440-48-4	
Lead	**0.93J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:31	7439-92-1	D3
Lithium	**215**	ug/L	1.0	2	09/05/24 13:02	09/07/24 00:20	7439-93-2	
Molybdenum	**24.6**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:31	7439-98-7	
Selenium	**0.41J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 15:40	7782-49-2	D3
Thallium	**<0.051**	ug/L	0.20	2	09/05/24 13:02	09/09/24 14:31	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis							
Mercury	**<0.074**	ug/L	0.20	1	09/05/24 13:57	09/06/24 11:24	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1773018 WG2353731
Pace Project No.: 10706419

Sample: CH-EVAP-MW81A-0824 **Lab ID: 10706419003** Collected: 08/28/24 19:06 Received: 08/31/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis							
Beryllium	**<0.44**	ug/L	5.0	1	09/05/24 12:48	09/06/24 12:55	7440-41-7	
Boron	**512**	ug/L	150	1	09/05/24 12:48	09/06/24 12:55	7440-42-8	
Calcium	**600000**	ug/L	500	1	09/05/24 12:48	09/06/24 12:55	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis							
Antimony	**<0.17**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:12	7440-36-0	D3
Arsenic	**1.3**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:12	7440-38-2	
Barium	**29.8**	ug/L	0.60	2	09/05/24 13:02	09/09/24 14:12	7440-39-3	
Cadmium	**<0.061**	ug/L	0.16	2	09/05/24 13:02	09/09/24 14:12	7440-43-9	D3
Chromium	**1.8J**	ug/L	4.0	2	09/05/24 13:02	09/09/24 14:12	7440-47-3	D3
Cobalt	**0.80J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:12	7440-48-4	D3
Lead	**0.63J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:12	7439-92-1	D3
Lithium	**187**	ug/L	1.0	2	09/05/24 13:02	09/06/24 23:57	7439-93-2	
Molybdenum	**43.3**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:12	7439-98-7	
Selenium	**0.68J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:12	7782-49-2	D3
Thallium	**<0.051**	ug/L	0.20	2	09/05/24 13:02	09/09/24 14:12	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis							
Mercury	**<0.074**	ug/L	0.20	1	09/05/24 13:57	09/06/24 11:25	7439-97-6	

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1773018 WG2353731
Pace Project No.: 10706419

Sample: CH-EVAP-MW80A-0824 **Lab ID: 10706419004** Collected: 08/29/24 10:02 Received: 08/31/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis							
Beryllium	**<0.44**	ug/L	5.0	1	09/05/24 12:48	09/06/24 12:57	7440-41-7	
Boron	**576**	ug/L	150	1	09/05/24 12:48	09/06/24 12:57	7440-42-8	
Calcium	**278000**	ug/L	500	1	09/05/24 12:48	09/06/24 12:57	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis							
Antimony	**0.40J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 15:02	7440-36-0	D3
Arsenic	**1.3**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:17	7440-38-2	
Barium	**45.3**	ug/L	0.60	2	09/05/24 13:02	09/09/24 14:17	7440-39-3	
Cadmium	**<0.061**	ug/L	0.16	2	09/05/24 13:02	09/09/24 14:17	7440-43-9	D3
Chromium	**1.9J**	ug/L	4.0	2	09/05/24 13:02	09/09/24 14:17	7440-47-3	D3
Cobalt	**2.8**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:17	7440-48-4	
Lead	**0.73J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:17	7439-92-1	D3
Lithium	**155**	ug/L	1.0	2	09/05/24 13:02	09/07/24 00:03	7439-93-2	
Molybdenum	**25.8**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:17	7439-98-7	
Selenium	**4.6**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:17	7782-49-2	D3
Thallium	**<0.051**	ug/L	0.20	2	09/05/24 13:02	09/09/24 14:17	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis							
Mercury	**<0.074**	ug/L	0.20	1	09/05/24 13:57	09/06/24 11:30	7439-97-6	

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ANALYTICAL RESULTS

Project: L1773018 WG2353731
Pace Project No.: 10706419

Sample: CH-EVAP-MW85C-0824 **Lab ID: 10706419005** Collected: 08/29/24 13:51 Received: 08/31/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis							
Beryllium	**<0.44**	ug/L	5.0	1	09/05/24 12:48	09/06/24 13:02	7440-41-7	
Boron	**181**	ug/L	150	1	09/05/24 12:48	09/06/24 13:02	7440-42-8	
Calcium	**112000**	ug/L	500	1	09/05/24 12:48	09/06/24 13:02	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis							
Antimony	**0.34J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 15:05	7440-36-0	D3
Arsenic	**0.89J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:23	7440-38-2	D3
Barium	**31.3**	ug/L	0.60	2	09/05/24 13:02	09/09/24 14:23	7440-39-3	
Cadmium	**<0.061**	ug/L	0.16	2	09/05/24 13:02	09/09/24 14:23	7440-43-9	D3
Chromium	**1.9J**	ug/L	4.0	2	09/05/24 13:02	09/09/24 14:23	7440-47-3	D3
Cobalt	**3.4**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:23	7440-48-4	
Lead	**1.3**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:23	7439-92-1	
Lithium	**29.0**	ug/L	1.0	2	09/05/24 13:02	09/07/24 00:08	7439-93-2	
Molybdenum	**7.3**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:23	7439-98-7	
Selenium	**0.86J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:23	7782-49-2	D3
Thallium	**0.076J**	ug/L	0.20	2	09/05/24 13:02	09/09/24 14:23	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis							
Mercury	**<0.074**	ug/L	0.20	1	09/05/24 13:57	09/06/24 11:31	7439-97-6	

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(612)607-1700

ANALYTICAL RESULTS

Project: L1773018 WG2353731
Pace Project No.: 10706419

Sample: CH-EVAP-FD01-0824 **Lab ID: 10706419006** Collected: 08/29/24 13:51 Received: 08/31/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis							
Beryllium	**<0.44**	ug/L	5.0	1	09/05/24 12:48	09/06/24 13:03	7440-41-7	
Boron	**570**	ug/L	150	1	09/05/24 12:48	09/06/24 13:03	7440-42-8	
Calcium	**277000**	ug/L	500	1	09/05/24 12:48	09/06/24 13:03	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis							
Antimony	**0.33J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 15:52	7440-36-0	D3
Arsenic	**1.4**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:47	7440-38-2	
Barium	**50.6**	ug/L	0.60	2	09/05/24 13:02	09/09/24 14:47	7440-39-3	
Cadmium	**<0.061**	ug/L	0.16	2	09/05/24 13:02	09/09/24 14:47	7440-43-9	D3
Chromium	**2.0J**	ug/L	4.0	2	09/05/24 13:02	09/09/24 14:47	7440-47-3	D3
Cobalt	**3.0**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:47	7440-48-4	
Lead	**0.85J**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:47	7439-92-1	D3
Lithium	**160**	ug/L	1.0	2	09/05/24 13:02	09/07/24 00:42	7439-93-2	
Molybdenum	**41.0**	ug/L	1.0	2	09/05/24 13:02	09/09/24 14:47	7439-98-7	
Selenium	**2.9**	ug/L	1.0	2	09/05/24 13:02	09/09/24 15:52	7782-49-2	
Thallium	**<0.051**	ug/L	0.20	2	09/05/24 13:02	09/09/24 14:47	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis							
Mercury	**<0.074**	ug/L	0.20	1	09/05/24 13:57	09/06/24 11:33	7439-97-6	

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QUALITY CONTROL DATA

Project: L1773018 WG2353731
Pace Project No.: 10706419

QC Batch: 966643
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10706419001, 10706419002, 10706419003, 10706419004, 10706419005, 10706419006

METHOD BLANK: 5051475 Matrix: Water
Associated Lab Samples: 10706419001, 10706419002, 10706419003, 10706419004, 10706419005, 10706419006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	09/06/24 11:20	

LABORATORY CONTROL SAMPLE: 5051476

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5051477 5051478

Parameter	Units	10706419003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.8	4.8	95	95	70-130	0	20	

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QUALITY CONTROL DATA

Project: L1773018 WG2353731
Pace Project No.: 10706419

QC Batch: 966398
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10706419001, 10706419002, 10706419003, 10706419004, 10706419005, 10706419006

METHOD BLANK: 5050205 Matrix: Water
Associated Lab Samples: 10706419001, 10706419002, 10706419003, 10706419004, 10706419005, 10706419006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	09/06/24 12:29	
Boron	ug/L	<16.0	150	09/06/24 12:29	
Calcium	ug/L	<31.8	500	09/06/24 12:29	

LABORATORY CONTROL SAMPLE: 5050206

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	984	98	85-115	
Boron	ug/L	1000	969	97	85-115	
Calcium	ug/L	20000	18600	93	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5050207 5050208

Parameter	Units	10706419001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1090	1110	109	111	70-130	1	20	
Boron	ug/L	676	1000	1000	1790	1810	111	114	70-130	1	20	
Calcium	ug/L	869000	20000	20000	896000	902000	136	169	70-130	1	20	P6

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QUALITY CONTROL DATA

Project: L1773018 WG2353731
Pace Project No.: 10706419

QC Batch: 966400
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10706419001, 10706419002, 10706419003, 10706419004, 10706419005, 10706419006

METHOD BLANK: 5050213 Matrix: Water
Associated Lab Samples: 10706419001, 10706419002, 10706419003, 10706419004, 10706419005, 10706419006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	09/09/24 14:01	
Arsenic	ug/L	<0.12	0.50	09/09/24 14:01	
Barium	ug/L	<0.070	0.30	09/09/24 14:01	
Cadmium	ug/L	<0.030	0.080	09/09/24 14:01	
Chromium	ug/L	<0.54	2.0	09/09/24 14:01	
Cobalt	ug/L	<0.095	0.50	09/09/24 14:01	
Lead	ug/L	<0.18	0.50	09/09/24 14:01	
Lithium	ug/L	<0.18	0.50	09/06/24 23:46	
Molybdenum	ug/L	0.13J	0.50	09/09/24 14:01	
Selenium	ug/L	<0.074	0.50	09/09/24 14:01	
Thallium	ug/L	<0.026	0.10	09/09/24 14:01	

LABORATORY CONTROL SAMPLE: 5050214

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	103	103	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	101	101	85-115	
Cadmium	ug/L	100	103	103	85-115	
Chromium	ug/L	100	106	106	85-115	
Cobalt	ug/L	100	107	107	85-115	
Lead	ug/L	100	104	104	85-115	
Lithium	ug/L	100	91.5	91	85-115	
Molybdenum	ug/L	100	104	104	85-115	
Selenium	ug/L	100	108	108	85-115	
Thallium	ug/L	100	103	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5050215 5050216

Parameter	Units	10706419002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.17	100	100	103	108	103	108	70-130	4	20	
Arsenic	ug/L	2.3	100	100	118	120	116	117	70-130	2	20	
Barium	ug/L	46.3	100	100	164	164	118	118	70-130	0	20	
Cadmium	ug/L	<0.061	100	100	103	103	103	103	70-130	0	20	
Chromium	ug/L	2.0J	100	100	118	121	116	119	70-130	3	20	
Cobalt	ug/L	4.9	100	100	117	118	112	113	70-130	1	20	

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QUALITY CONTROL DATA

Project: L1773018 WG2353731
Pace Project No.: 10706419

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5050215 5050216

Parameter	Units	10706419002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	0.93J	100	100	109	112	108	111	70-130	3	20	
Lithium	ug/L	215	100	100	303	313	89	98	70-130	3	20	
Molybdenum	ug/L	24.6	100	100	141	141	117	117	70-130	0	20	
Selenium	ug/L	0.41J	100	100	103	102	103	102	70-130	1	20	
Thallium	ug/L	<0.051	100	100	111	114	111	114	70-130	3	20	

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QUALIFIERS

Project: L1773018 WG2353731
Pace Project No.: 10706419

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1773018 WG2353731
Pace Project No.: 10706419

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10706419001	**CH-EVAP-MW84A-0824**	EPA 200.7	966398	EPA 200.7	966660
10706419002	**CH-EVAP-MW83A--0824**	EPA 200.7	966398	EPA 200.7	966660
10706419003	**CH-EVAP-MW81A-0824**	EPA 200.7	966398	EPA 200.7	966660
10706419004	**CH-EVAP-MW80A-0824**	EPA 200.7	966398	EPA 200.7	966660
10706419005	**CH-EVAP-MW85C-0824**	EPA 200.7	966398	EPA 200.7	966660
10706419006	**CH-EVAP-FD01-0824**	EPA 200.7	966398	EPA 200.7	966660
10706419001	**CH-EVAP-MW84A-0824**	EPA 200.8	966400	EPA 200.8	966685
10706419002	**CH-EVAP-MW83A--0824**	EPA 200.8	966400	EPA 200.8	966685
10706419003	**CH-EVAP-MW81A-0824**	EPA 200.8	966400	EPA 200.8	966685
10706419004	**CH-EVAP-MW80A-0824**	EPA 200.8	966400	EPA 200.8	966685
10706419005	**CH-EVAP-MW85C-0824**	EPA 200.8	966400	EPA 200.8	966685
10706419006	**CH-EVAP-FD01-0824**	EPA 200.8	966400	EPA 200.8	966685
10706419001	**CH-EVAP-MW84A-0824**	EPA 245.1	966643	EPA 245.1	966711
10706419002	**CH-EVAP-MW83A--0824**	EPA 245.1	966643	EPA 245.1	966711
10706419003	**CH-EVAP-MW81A-0824**	EPA 245.1	966643	EPA 245.1	966711
10706419004	**CH-EVAP-MW80A-0824**	EPA 245.1	966643	EPA 245.1	966711
10706419005	**CH-EVAP-MW85C-0824**	EPA 245.1	966643	EPA 245.1	966711
10706419006	**CH-EVAP-FD01-0824**	EPA 245.1	966643	EPA 245.1	966711

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Sub-Contract Chain of Custody

Batch Date/Time: 08/30/24 13:33
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: tong.lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2353731
Email: MTJLSuboutTeam@pacelabs.com
Resnlts Due Date: 09/16/24
ESC Purchase Order #: L1773018
Send Reports to: James C Huckaba

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only	
CH-EVAP-MW84A-0824	WW	AZ	08/28/24 16:22	200.7 B, Be, Ca, Li, Hg	1. L1773018-01	200.7 B, Be, Ca, Li, Hg	CW1
CH-EVAP-MW84A-0824	WW	AZ	08/28/24 16:22	Metals	2. L1773018-01	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl	CW1
CH-EVAP-MW83A-0824	WW	AZ	08/28/24 17:40	200.7 B, Be, Ca, Li, Hg	3. L1773018-02	200.7 B, Be, Ca, Li, Hg	CW2
CH-EVAP-MW83A-0824	WW	AZ	08/28/24 17:40	Metals	4. L1773018-02	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl	CW2
CH-EVAP-MW81A-0824	WW	AZ	08/28/24 19:06	200.7 B, Be, Ca, Li, Hg	5. L1773018-03	200.7 B, Be, Ca, Li, Hg	CW3
CH-EVAP-MW81A-0824	WW	AZ	08/28/24 19:06	Metals	6. L1773018-03	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl	CW3
CH-EVAP-MW80A-0824	WW	AZ	08/29/24 10:02	200.7 B, Be, Ca, Li, Hg	7. L1773018-04	200.7 B, Be, Ca, Li, Hg	CW4
CH-EVAP-MW80A-0824	WW	AZ	08/29/24 10:02	Metals	8. L1773018-04	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl	CW4
CH-EVAP-MW85C-0824	WW	AZ	08/29/24 13:51	200.7 B, Be, Ca, Li, Hg	9. L1773018-05	200.7 B, Be, Ca, Li, Hg	CW5
CH-EVAP-MW85C-0824	WW	AZ	08/29/24 13:51	Metals	10. L1773018-05	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl	CW5
CH-EVAP-FD01-0824	WW	AZ	08/29/24 13:51	200.7 B, Be, Ca, Li, Hg	11. L1773018-06	200.7 B, Be, Ca, Li, Hg	CW6
CH-EVAP-FD01-0824	WW	AZ	08/29/24 13:51	Metals	12. L1773018-06	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl	CW6

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ **Date** _____

Recieved by: [signature] **Date** 8/30/24 900

Relinquished by: _____ **Date** _____

Recieved by: _____ **Date** _____

1.8 (T)

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTJL PROJECT #:

WO#: 10706419
PM: YO1 Due Date: 09/17/24
CLIENT: PAS1-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 781616 8164 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☐ YES ☑ NO Seals Intact: ☐ YES ☑ NO Biological Tissue Frozen: ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☑ None ☐ Other Temp Blank: ☑ YES ☐ NO Type of Ice: ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	Were All Container Temps taken: ☐ YES ☐ NO ☑ N/A
Correction Factor: True Cooler Temp Read w/Temp Blank: 1.6 °C Cooler Temp Corrected w/Temp Blank: 1.8 °C	Average Corrected Temp (no Temp Blank Only): ____ °C
NOTE: Temp should be above freezing to 6°C.	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A - Water Sample/Other (describe): ____	Initials & Date of Person Examining Contents: EC 9-3-24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other:
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used?	☑	☐	☐	8.
– Pace Containers Used?	☑	☐		
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? NOTE: If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		11. If NO, write ID/Date/Time of container below: ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☑	☐	☐	12. Sample #: 001-012 1-6 2 MH 9/3/24
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☑	☐	☐	☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, verify with the PM first. Clients may require adding preservative to the field and equipment blanks when this occurs.				pH Paper Lot #
				Residual Chlorine: 0-6 Roll 213923; 0-6 Strip; 0-14 Strip
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased):

CLIENT NOTIFICATION / RESOLUTION FIELD DATA REQUIRED: ☐ YES ☐ NO

Person Contacted: ____ Date & Time: ____

Comments / Resolution: ____

Project Manager Review: [signature] Date: 09/04/24

NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: EC Line: 2

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1773018	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	16-Sep	Project #:		Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals	Miscellaneous Analyses	Residual Chlorine (Y/N)	
1	CH-EVAP-MW84A-0824	WT				28-Aug	16:22		1								1		X	X		200.7 B, Be, Ca, Li, Hg
2	CH-EVAP-MW84A-0824	WT				28-Aug	16:22		1								1		X	X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb
3	CH-EVAP-MW83A-0824	WT				28-Aug	17:40		1								1		X	X		200.7 B, Be, Ca, Li, Hg
4	CH-EVAP-MW83A-0824	WT				28-Aug	17:40		1								1		X	X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb
5	CH-EVAP-MW81A-0824	WT				28-Aug	19:06		1								1		X	X		200.7 B, Be, Ca, Li, Hg
6	CH-EVAP-MW81A-0824	WT				28-Aug	19:06		1								1		X	X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb
7	CH-EVAP-MW80A-0824	WT				29-Aug	10:02		1								1		X	X		200.7 B, Be, Ca, Li, Hg
8	CH-EVAP-MW80A-0824	WT				29-Aug	10:02		1								1		X	X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb
9	CH-EVAP-MW85C-0824	WT				29-Aug	13:51		1								1		X	X		200.7 B, Be, Ca, Li, Hg
10	CH-EVAP-MW85C-0824	WT				29-Aug	13:51		1								1		X	X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb
11	CH-EVAP-FD01-0824	WT				29-Aug	13:51		1								1		X	X		200.7 B, Be, Ca, Li, Hg
12	CH-EVAP-FD01-0824	WT				29-Aug	13:51		1								1		X	X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	30-Aug	13:39				
Pace Analytical Batch: WG2353731							
Pace Analytical SDGs: L1773018							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	**DATE Signed:**				

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

ANALYTICAL REPORT

September 17, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

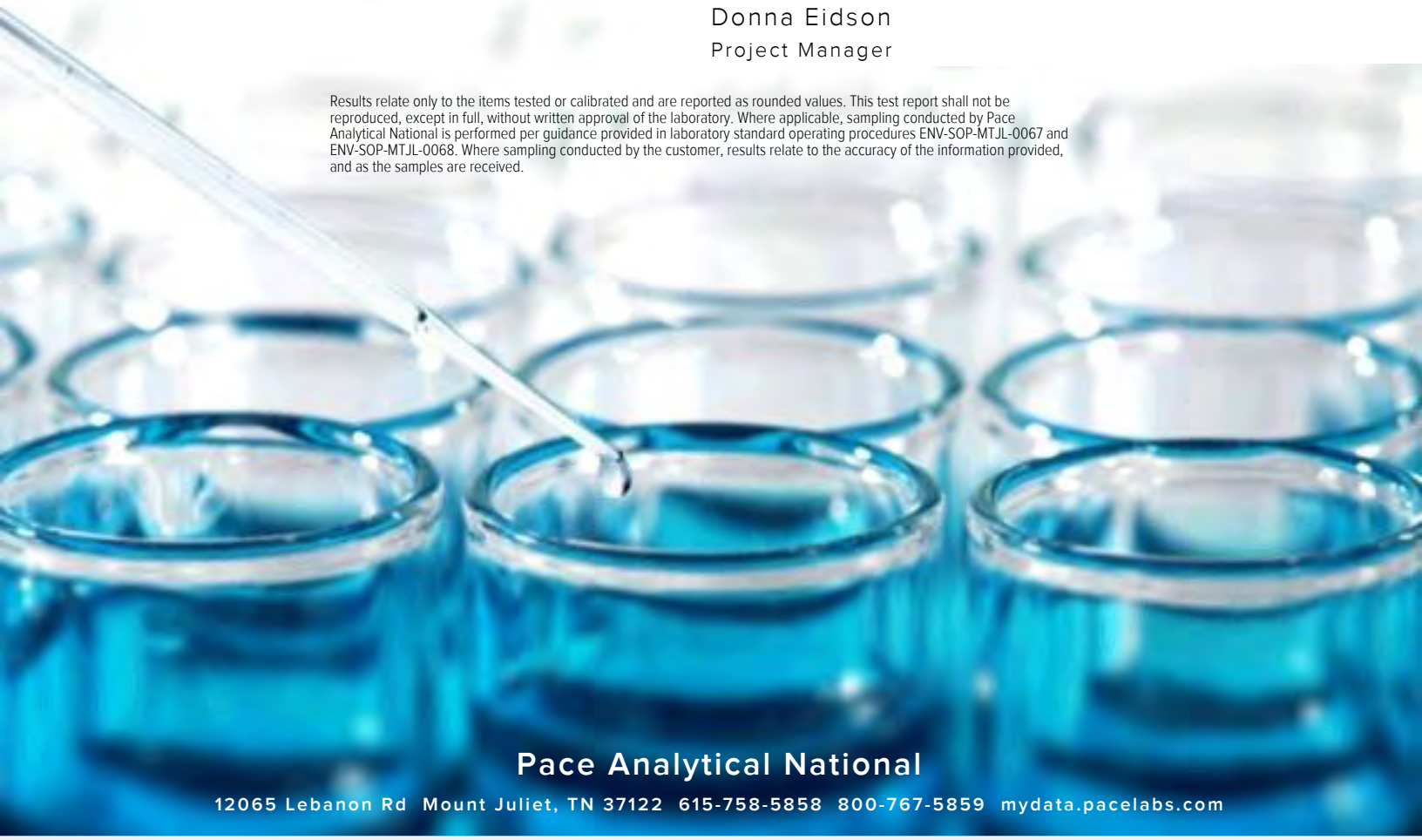
Sample Delivery Group:	L1773370
Samples Received:	08/31/2024
Project Number:	US0023513.6913.003.2
Description:	

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Donna Eidson
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-EVAP-MW84A-0824 L1773370-01 Non-Potable Water

Collected by: Brad Hartman | Collected date/time: 08/28/24 16:22 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2356501	1	09/05/24 09:08	09/14/24 12:36	ASN	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2354777	1	09/02/24 09:17	09/11/24 21:03	DDD	Mt. Juliet, TN

CH-EVAP-MW83A-0824 L1773370-02 Non-Potable Water

Collected by: Brad Hartman | Collected date/time: 08/28/24 16:22 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2356501	1	09/05/24 09:08	09/14/24 12:36	ASN	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2354777	1	09/02/24 09:17	09/11/24 21:03	DDD	Mt. Juliet, TN

CH-EVAP-MW81A-0824 L1773370-03 Non-Potable Water

Collected by: Brad Hartman | Collected date/time: 08/28/24 16:22 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2356501	1	09/05/24 09:08	09/14/24 13:36	ASN	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2354777	1	09/02/24 09:17	09/11/24 21:03	DDD	Mt. Juliet, TN

CH-EVAP-MW80A-0824 L1773370-04 Non-Potable Water

Collected by: Brad Hartman | Collected date/time: 08/28/24 16:22 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2356501	1	09/05/24 09:08	09/14/24 13:36	ASN	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2354777	1	09/02/24 09:17	09/11/24 21:03	DDD	Mt. Juliet, TN

CH-EVAP-MW85C-0824 L1773370-05 Non-Potable Water

Collected by: Brad Hartman | Collected date/time: 08/28/24 16:22 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2356501	1	09/05/24 09:08	09/14/24 13:36	ASN	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2354777	1	09/02/24 09:17	09/11/24 21:03	DDD	Mt. Juliet, TN

CH-EVAP-FD01-0824 L1773370-06 Non-Potable Water

Collected by: Brad Hartman | Collected date/time: 08/28/24 16:22 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2356501	1	09/05/24 09:08	09/14/24 13:36	ASN	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2354777	1	09/02/24 09:17	09/11/24 21:03	DDD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Donna Eidson
Project Manager

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	0.885		0.293	0.435	0.183	0.0558	09/14/2024 12:36	WG2356501
(T) Barium	*117*					*30.0-143*	*09/14/2024 12:36*	WG2356501

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.278	J	0.247	0.445	0.474	0.248	09/11/2024 21:03	WG2354777
(T) Barium	*122*					*30.0-143*	*09/11/2024 21:03*	WG2354777
(T) Yttrium	*101*					*30.0-136*	*09/11/2024 21:03*	WG2354777

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	0.669		0.281	0.423	0.294	0.111	09/14/2024 12:36	WG2356501
(T) Barium	*111*					*30.0-143*	*09/14/2024 12:36*	WG2356501

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.04		0.245	0.445	0.446	0.234	09/11/2024 21:03	WG2354777
(T) Barium	*98.2*					*30.0-143*	*09/11/2024 21:03*	WG2354777
(T) Yttrium	*101*					*30.0-136*	*09/11/2024 21:03*	WG2354777

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	0.596		0.251	0.394	0.228	0.0786	09/14/2024 13:36	WG2356501
(T) Barium	*112*					*30.0-143*	*09/14/2024 13:36*	WG2356501

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.949		0.233	0.439	0.423	0.223	09/11/2024 21:03	WG2354777
(T) Barium	*101*					*30.0-143*	*09/11/2024 21:03*	WG2354777
(T) Yttrium	*92.4*					*30.0-136*	*09/11/2024 21:03*	WG2354777

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	0.406		0.215	0.357	0.229	0.0789	09/14/2024 13:36	WG2356501
(T) Barium	*109*					*30.0-143*	*09/14/2024 13:36*	WG2356501

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.536		0.232	0.449	0.437	0.231	09/11/2024 21:03	WG2354777
(T) Barium	*84.5*					*30.0-143*	*09/11/2024 21:03*	WG2354777
(T) Yttrium	*106*					*30.0-136*	*09/11/2024 21:03*	WG2354777

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	0.621		0.248	0.390	0.183	0.0557	09/14/2024 13:36	WG2356501
(T) Barium	*103*					*30.0-143*	*09/14/2024 13:36*	WG2356501

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.729		0.296	0.540	0.557	0.293	09/11/2024 21:03	WG2354777
(T) Barium	*70.2*					*30.0-143*	*09/11/2024 21:03*	WG2354777
(T) Yttrium	*113*					*30.0-136*	*09/11/2024 21:03*	WG2354777

Radiochemistry by Method 903.0/9315

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
Radium-226	0.930		0.320	0.463	0.293	0.111	09/14/2024 13:36	WG2356501
(T) Barium	*112*					*30.0-143*	*09/14/2024 13:36*	WG2356501

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.312	J	0.307	0.594	0.593	0.312	09/11/2024 21:03	WG2354777
(T) Barium	*109*					*30.0-143*	*09/11/2024 21:03*	WG2354777
(T) Yttrium	*93.3*					*30.0-136*	*09/11/2024 21:03*	WG2354777

Method Blank (MB)

(MB) R4120404-1 09/14/24 11:35

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.108	J	0.0847	0.115	0.0396
(T) Barium	*104*		*104*		

L1773902-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1773902-01 09/14/24 14:36 • (DUP) R4120404-5 09/14/24 12:36

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.262	0.181	0.228	0.0785	0.239	0.282	0.459	0.158	8.86	0.0663	J	20	3
(T) Barium	*103*				*105*	*105*							

Laboratory Control Sample (LCS)

(LCS) R4120404-2 09/14/24 11:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.15	103	75.0-125	
(T) Barium			*98.6*		

L1773902-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1773902-06 09/14/24 15:37 • (MS) R4120404-3 09/14/24 11:35 • (MSD) R4120404-4 09/14/24 12:36

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.691	21.1	20.4	102	98.4	1	75.0-125			3.23		20
(T) Barium		*104*			*102*	*104*							

Method Blank (MB)

(MB) R4119780-1 09/11/24 21:03

Analyte	MB Result	MB Qualifier	MB 2 sigma CE	MB MDA	MB Lc
	pCi/l		+ / -	pCi/l	pCi/l
Radium-228	-0.0353	U	0.201	0.395	0.206
(T) Barium	*114*		*114*		
(T) Yttrium	*83.9*		*83.9*		

L1773370-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1773370-06 09/11/24 21:03 • (DUP) R4119780-4 09/11/24 21:03

Analyte	Original Result	Original 2 sigma CE	Original MDA	Original Lc	DUP Result	DUP 2 sigma CE	DUP MDA	DUP Lc	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	pCi/l	+ / -	pCi/l	pCi/l	%			%	
Radium-228	0.312	0.307	0.593	0.312	1.19	0.301	0.548	0.290	117	2.05		20	3
(T) Barium	*109*				*110*	*110*							
(T) Yttrium	*93.3*				*90.4*	*90.4*							

Laboratory Control Sample (LCS)

(LCS) R4119780-2 09/11/24 21:03

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-228	5.00	4.32	86.3	80.0-120	
(T) Barium			*112*		
(T) Yttrium			*102*		

L1770083-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1770083-06 09/11/24 21:03 • (MS) R4119780-3 09/11/24 21:03

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	pCi/l	pCi/l	pCi/l	%		%	
Radium-228	16.7	0.945	17.2	97.2	1	70.0-130	
(T) Barium		*101*		*105*			
(T) Yttrium		*99.8*		*100*			

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To: **samantha.oshea@wsp.com**

Project Description:
APS Chella EVAP Ponds

City/State Collected:
Joseph / AZ

Please Circle:
PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLARAD

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately
Packed on Ice N ___ Y X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	RA-226 1L-HDPE-Add HNO3	RA-228 1L-HDPE-Add-HNO3								Remarks	Sample # (lab only)
CH-EVAP-MW84A-0824		NPW		8-28-24	1622	3	X	X									01
CH-EVAP-MW83A-0824		NPW		8-28-24	1740	3	X	X									02
CH-EVAP-MW81A-0824		NPW		8-28-24	1906	3	X	X									03
CH-EVAP-MW80A-0824		NPW		8-29-24	1002	3	X	X									04
CH-EVAP-MW85C-0824		NPW		8-29-24	1351	3	X	X									05
CH-EVAP-FD01-0824		NPW		8-29-24	1135	3	X	X									06
		NPW				3	X	X									
		NPW				3	X	X									

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1733890
F003

Acctnum: **AMECTAZ**
Template: **T259201**
Prelogin: **P1097469**
PM: **288 - Daphne Richards**
PB: NG 8/27/24
Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	8-30-24	0913			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
	8-30-24	1300		4.9+3=5.2 18	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK
			Christopher A Collins	8/31/24 0900	

ANALYTICAL REPORT

September 24, 2024

Revised Report

WSP (Formely Wood E&I)-Phoenix, AZ

Sample Delivery Group:	L1773568
Samples Received:	08/31/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

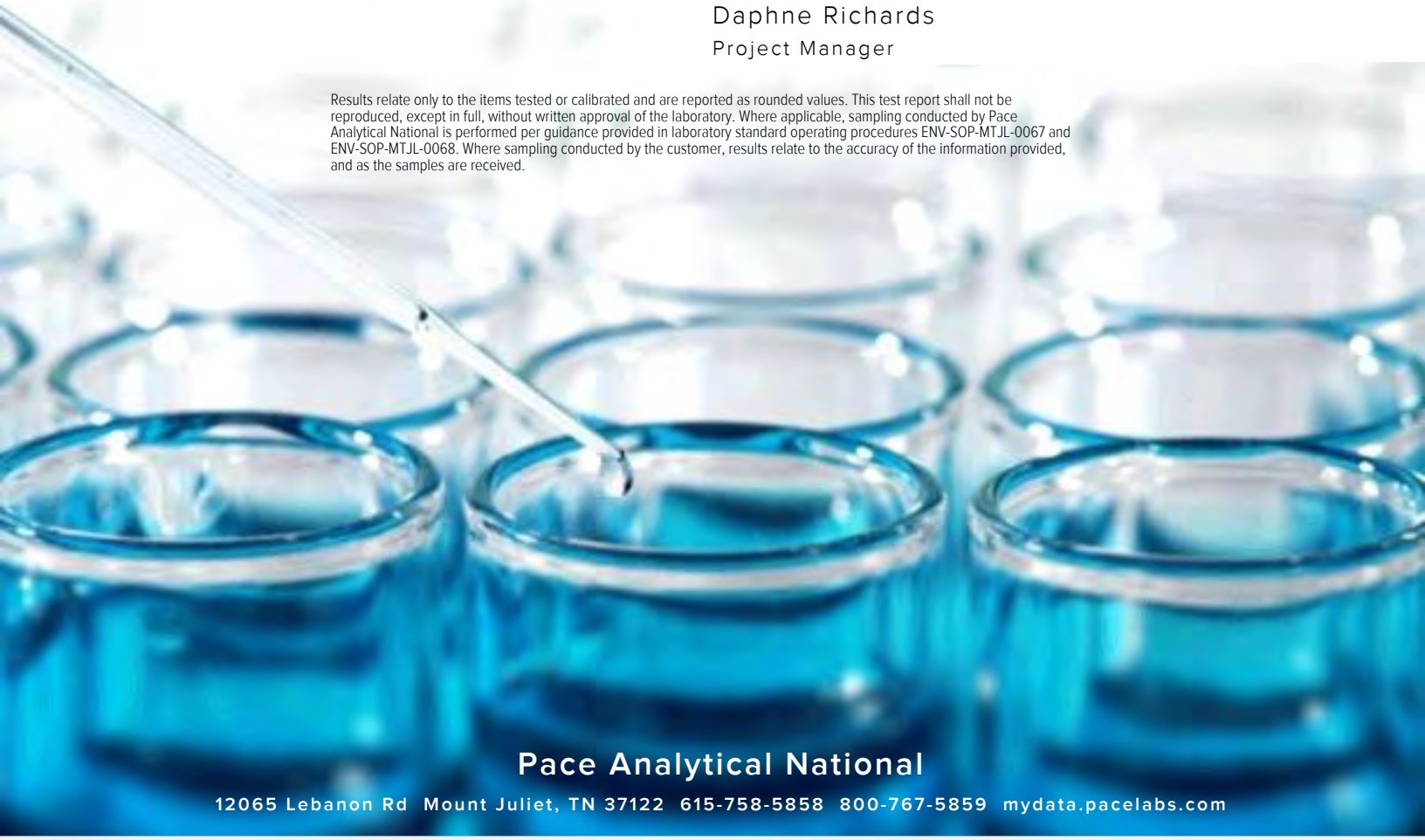
Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

[Preliminary Report]

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-EVAP-MW84A-0824 L1773568-01 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	08/28/24 16:22	08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2355032	1	09/03/24 08:16	09/03/24 15:18	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2354813	10	09/03/24 22:52	09/03/24 22:52	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2354813	100	09/03/24 23:44	09/03/24 23:44	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2355385	1	09/03/24 17:20	09/03/24 17:20	KRB	Mt. Juliet, TN

CH-EVAP-MW83A-0824 L1773568-02 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	08/28/24 17:40	08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2355032	1	09/03/24 08:16	09/03/24 15:18	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2354813	10	09/04/24 00:02	09/04/24 00:02	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2354813	100	09/04/24 00:19	09/04/24 00:19	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2355385	1	09/03/24 17:20	09/03/24 17:20	KRB	Mt. Juliet, TN

CH-EVAP-MW81A-0824 L1773568-03 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	08/28/24 19:06	08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2355032	1	09/03/24 08:16	09/03/24 15:18	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2354813	10	09/04/24 00:37	09/04/24 00:37	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2354813	100	09/04/24 00:54	09/04/24 00:54	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2355385	1	09/03/24 17:20	09/03/24 17:20	KRB	Mt. Juliet, TN

CH-EVAP-MW80A-0824 L1773568-04 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	08/29/24 10:02	08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2355032	1	09/03/24 08:16	09/03/24 15:18	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2354813	10	09/04/24 01:11	09/04/24 01:11	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2355385	1	09/03/24 17:20	09/03/24 17:20	KRB	Mt. Juliet, TN

CH-EVAP-MW85A-0824 L1773568-05 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	08/29/24 13:51	08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2355032	1	09/03/24 08:16	09/03/24 15:18	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2354813	5	09/04/24 01:46	09/04/24 01:46	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2355385	1	09/03/24 17:20	09/03/24 17:20	KRB	Mt. Juliet, TN

CH-EVAP-FD01-0824 L1773568-06 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	08/29/24 11:35	08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2355032	1	09/03/24 08:16	09/03/24 15:18	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2354813	10	09/04/24 02:21	09/04/24 02:21	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2355385	1	09/03/24 17:20	09/03/24 17:20	KRB	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Daphne Richards
Project Manager

Report Revision History

Level II Report - Version 1: 09/09/24 10:39

Project Narrative

EDD
MDL

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	11400000		200000	1	09/03/2024 15:18	WG2355032

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4450000		54700	100000	100	09/03/2024 23:44	WG2354813
Fluoride	1440	E4	761	1500	10	09/03/2024 22:52	WG2354813
Sulfate	2350000		63700	500000	100	09/03/2024 23:44	WG2354813

Sample Narrative:

L1773568-01 WG2354813: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.07	H3	1	09/03/2024 17:20	WG2355385

Sample Narrative:

L1773568-01 WG2355385: 7.07 at 20.3C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	10700000		200000	1	09/03/2024 15:18	WG2355032

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4070000		54700	100000	100	09/04/2024 00:19	WG2354813
Fluoride	785	E4	761	1500	10	09/04/2024 00:02	WG2354813
Sulfate	2050000		63700	500000	100	09/04/2024 00:19	WG2354813

Sample Narrative:

L1773568-02 WG2354813: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.14	H3	1	09/03/2024 17:20	WG2355385

Sample Narrative:

L1773568-02 WG2355385: 7.14 at 20.4C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	10400000		200000	1	09/03/2024 15:18	WG2355032

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	3680000		54700	100000	100	09/04/2024 00:54	WG2354813
Fluoride	1090	E4	761	1500	10	09/04/2024 00:37	WG2354813
Sulfate	2840000		63700	500000	100	09/04/2024 00:54	WG2354813

Sample Narrative:

L1773568-03 WG2354813: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.45	H3	1	09/03/2024 17:20	WG2355385

Sample Narrative:

L1773568-03 WG2355385: 7.45 at 20.5C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	4870000		100000	1	09/03/2024 15:18	WG2355032

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1170000		5470	10000	10	09/04/2024 01:11	WG2354813
Fluoride	920	E4	761	1500	10	09/04/2024 01:11	WG2354813
Sulfate	1750000		6370	50000	10	09/04/2024 01:11	WG2354813

Sample Narrative:

L1773568-04 WG2354813: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.45	H3	1	09/03/2024 17:20	WG2355385

Sample Narrative:

L1773568-04 WG2355385: 7.45 at 20.5C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	1660000		50000	1	09/03/2024 15:18	WG2355032

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	652000		2740	5000	5	09/04/2024 01:46	WG2354813
Fluoride	640	E4	380	750	5	09/04/2024 01:46	WG2354813
Sulfate	352000		3180	25000	5	09/04/2024 01:46	WG2354813

Sample Narrative:

L1773568-05 WG2354813: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.56	H3	1	09/03/2024 17:20	WG2355385

Sample Narrative:

L1773568-05 WG2355385: 7.56 at 20.3C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	4960000		100000	1	09/03/2024 15:18	WG2355032

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1160000		5470	10000	10	09/04/2024 02:21	WG2354813
Fluoride	918	E4	761	1500	10	09/04/2024 02:21	WG2354813
Sulfate	1730000		6370	50000	10	09/04/2024 02:21	WG2354813

Sample Narrative:

L1773568-06 WG2354813: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.53	H3	1	09/03/2024 17:20	WG2355385

Sample Narrative:

L1773568-06 WG2355385: 7.53 at 20.3C

Method Blank (MB)

(MB) R4116679-1 09/03/24 15:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		10000	10000

L1773531-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1773531-02 09/03/24 15:18 • (DUP) R4116679-3 09/03/24 15:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	930000	940000	1	1.07		10

L1773568-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1773568-06 09/03/24 15:18 • (DUP) R4116679-4 09/03/24 15:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4960000	4870000	1	1.83		10

Laboratory Control Sample (LCS)

(LCS) R4116679-2 09/03/24 15:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8710000	99.0	85.0-115	

Method Blank (MB)

(MB) R4115099-1 09/03/24 18:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1773567-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1773567-01 09/03/24 20:33 • (DUP) R4115099-3 09/03/24 20:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	811	767	1	5.58	E4	15
Fluoride	87.4	U	1	200	R8	15
Sulfate	19800	20100	1	1.78		15

L1773567-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1773567-02 09/03/24 21:42 • (DUP) R4115099-6 09/03/24 22:00

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	766	702	1	8.78	E4	15
Fluoride	104	77.4	1	29.0	E4 R8	15
Sulfate	36300	36900	1	1.65		15

Laboratory Control Sample (LCS)

(LCS) R4115099-2 09/03/24 19:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	38100	95.4	90.0-110	
Fluoride	8000	7890	98.7	90.0-110	
Sulfate	40000	38700	96.7	90.0-110	

L1773567-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1773567-01 09/03/24 20:33 • (MS) R4115099-4 09/03/24 21:08 • (MSD) R4115099-5 09/03/24 21:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	811	38500	39100	94.3	95.7	1	90.0-110			1.42	15
Fluoride	8000	87.4	7910	8140	97.8	101	1	90.0-110			2.91	15
Sulfate	40000	19800	54800	55700	87.5	89.9	1	90.0-110	M2	M2	1.73	15

L1773567-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1773567-02 09/03/24 21:42 • (MS) R4115099-7 09/03/24 22:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	766	39100	95.8	1	90.0-110	
Fluoride	8000	104	7990	98.6	1	90.0-110	
Sulfate	40000	36300	68800	81.4	1	90.0-110	M2

L1773567-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1773567-01 09/03/24 17:20 • (DUP) R4115013-2 09/03/24 17:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.41	8.41	1	0.000		1

Sample Narrative:

OS: 8.41 at 20.9C

DUP: 8.41 at 20.9C

L1773666-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1773666-03 09/03/24 17:20 • (DUP) R4115013-3 09/03/24 17:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.85	7.88	1	0.381		1

Sample Narrative:

OS: 7.85 at 20.9C

DUP: 7.88 at 20.6C

Laboratory Control Sample (LCS)

(LCS) R4115013-1 09/03/24 17:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 21.5C

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com;natalie.chrismanlaz**

Project Description: **APS-Cholla**

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project # **AMECTAZ-APSCHOLLA**

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 B,Be,Ca,Li, Hg 250mlHDPE-HNO3	200.8 Metals 250mlHDPE-HNO3	Cl, Fl, SO4, pH 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	Remarks	Sample # (lab only)
CH-EVAP-MW34A-0824		WW		8-28-24	1622	4	X	X	X	X		
CH-EVAP-MW33A-0824		WW		8-28-24	1740	4	X	X	X	X		
CH-EVAP-MW31A-0824		WW		8-28-24	1906	4	X	X	X	X		
CH-EVAP-MW30A-0824		WW		8-29-24	1002	4	X	X	X	X		
CH-EVAP-MW32A-0824		WW		8-29-24	1351	4	X	X	X	X		
CH-EVAP-FD01-0824		WW		8-29-24	1135	4	X	X	X	X		
		WW				4	X	X	X	X		

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1773568
1173

Acctnum: **AMECTAZ**
Template: **T259194**
Prelogin: **P1097457**
PM: **288 - Daphne Richards**
PB:
Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.8 Metals-ASG,BAG,CDG,COG,CRG,MOG,PBG,SBG,SEG,TLG. Sub to Pace MN

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 6857 9924 8430

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	8-30-24	0913		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: TLM °C Bottles Received:
	8-30-24	1800	FedEx	2.8+0.2=3.1 12
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				8/31/24 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

2 NAZ

8/31 - NCF-L1773568 AMECTAZ

R5

Time estimate: oh **Time spent:** oh **Grouping date:** 4 September 2024

Members

Robert Rountree (responsible) DR Daphne Richards

~~Due on 9 September 2024 5:00 PM~~ for target ~~Done~~ (Was done by Robert Rountree at 4 September 2024 5:36 PM)

- [x] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [x] Sample IDs on containers do not match IDs on COC
- [ ] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Robert Rountree *2 September 2024 6:16 AM*

Sample CH-EVAP-MW85A-0824 is written as "85C" on container.

Chain says 4 containers but only 2 received. Remarks say 200.8 metals were direct sub but does not mention 200.7 metals. Do these need to be split off unpreserved volume or were these subbed out as well?

Daphne Richards *3 September 2024 9:15 AM*

Use ID on CoC

Daphne Richards *3 September 2024 12:37 PM*

200.7 metals were subbed in AZ with the 200.8

Robert Rountree *4 September 2024 5:36 PM*

Done.

ANALYTICAL REPORT

December 02, 2024

Revised Report

WSP (Formely Wood E&I)-Phoenix, AZ

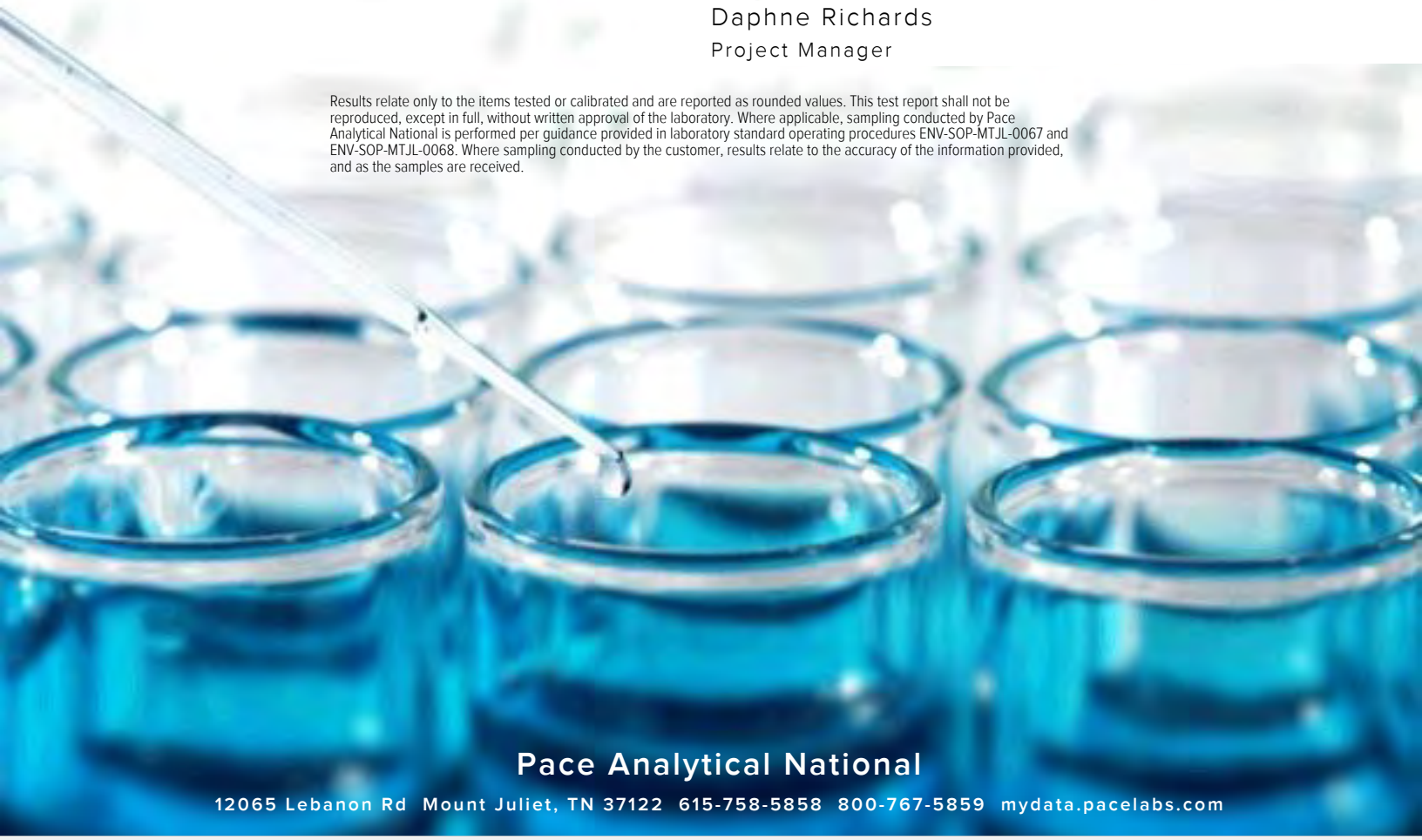
Sample Delivery Group:	L1785892
Samples Received:	10/05/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-EVAP-MW80A-1024 L1785892-01 WW

Collected by: Brad Hartman | Collected date/time: 10/03/24 09:17 | Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2376751	1	10/05/24 17:47	10/06/24 10:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2376885	10	10/09/24 03:44	10/09/24 03:44	GEB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2379195	1	10/09/24 21:40	10/09/24 21:40	KRB	Mt. Juliet, TN
Mercury by Method 245.1	WG2376953	1	10/07/24 15:23	10/08/24 13:51	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2379857	1	10/16/24 19:09	10/17/24 11:41	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2378823	1	10/17/24 19:35	10/21/24 01:20	LD	Mt. Juliet, TN

CH-EVAP-MW81A-1024 L1785892-02 WW

Collected by: Brad Hartman | Collected date/time: 10/03/24 10:28 | Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2376751	1	10/05/24 17:47	10/06/24 10:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2376885	100	10/09/24 04:11	10/09/24 04:11	GEB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2401598	5	11/14/24 15:45	11/14/24 15:45	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2379195	1	10/09/24 21:40	10/09/24 21:40	KRB	Mt. Juliet, TN
Mercury by Method 245.1	WG2376953	1	10/07/24 15:23	10/08/24 13:54	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2379857	1	10/16/24 19:09	10/17/24 11:43	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2378823	1	10/17/24 19:35	10/21/24 01:23	LD	Mt. Juliet, TN

CH-EVAP-MW83A-1024 L1785892-03 WW

Collected by: Brad Hartman | Collected date/time: 10/03/24 11:59 | Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2376751	1	10/05/24 17:47	10/06/24 10:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2376885	100	10/09/24 04:25	10/09/24 04:25	GEB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2401598	5	11/14/24 16:03	11/14/24 16:03	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2379195	1	10/09/24 21:40	10/09/24 21:40	KRB	Mt. Juliet, TN
Mercury by Method 245.1	WG2376953	1	10/07/24 15:23	10/08/24 13:57	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2379857	1	10/16/24 19:09	10/17/24 11:45	JTM	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2379857	3	10/16/24 19:09	10/17/24 15:49	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2378823	1	10/17/24 19:35	10/21/24 01:26	LD	Mt. Juliet, TN

CH-EVAP-MW84A-1024 L1785892-04 WW

Collected by: Brad Hartman | Collected date/time: 10/03/24 14:47 | Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2376751	1	10/05/24 17:47	10/06/24 10:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2376885	100	10/09/24 05:05	10/09/24 05:05	GEB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2401598	5	11/14/24 16:20	11/14/24 16:20	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2379195	1	10/09/24 21:40	10/09/24 21:40	KRB	Mt. Juliet, TN
Mercury by Method 245.1	WG2376953	1	10/07/24 15:23	10/08/24 13:59	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2379857	1	10/16/24 19:09	10/17/24 11:47	JTM	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2379857	2	10/16/24 19:09	10/17/24 15:51	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2378823	1	10/17/24 19:35	10/21/24 01:30	LD	Mt. Juliet, TN

CH-EVAP-MW85C-1024 L1785892-05 WW

Collected by: Brad Hartman | Collected date/time: 10/03/24 16:01 | Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2376751	1	10/05/24 17:47	10/06/24 10:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2376885	1	10/09/24 05:19	10/09/24 05:19	GEB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2376885	10	10/09/24 05:32	10/09/24 05:32	GEB	Mt. Juliet, TN

CH-EVAP-MW85C-1024 L1785892-05 WW

Collected by: Brad Hartman
Collected date/time: 10/03/24 16:01
Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500H+ B-2011	WG2379195	1	10/09/24 21:40	10/09/24 21:40	KRB	Mt. Juliet, TN
Mercury by Method 245.1	WG2376953	1	10/07/24 15:23	10/08/24 14:06	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2379857	1	10/16/24 19:09	10/17/24 11:48	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2378823	1	10/17/24 19:35	10/21/24 01:39	LD	Mt. Juliet, TN

CH-EVAP-FD01-1024 L1785892-06 WW

Collected by: Brad Hartman
Collected date/time: 10/03/24 14:41
Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2376751	1	10/05/24 17:47	10/06/24 10:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2376885	1	10/09/24 05:46	10/09/24 05:46	GEB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2376885	10	10/09/24 05:59	10/09/24 05:59	GEB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2379195	1	10/09/24 21:40	10/09/24 21:40	KRB	Mt. Juliet, TN
Mercury by Method 245.1	WG2376953	1	10/07/24 15:23	10/08/24 12:41	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2379859	1	10/17/24 19:08	10/18/24 12:12	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2378823	1	10/17/24 19:35	10/21/24 01:42	LD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Report Revision History

Level II Report - Version 1: 10/30/24 13:20
Level II Report - Version 2: 11/05/24 14:13
Level II Report - Version 3: 11/21/24 16:46

Project Narrative

Collection time correction
Fluoride

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	3370000		100000	1	10/06/2024 10:08	WG2376751

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	907000		5470	10000	10	10/09/2024 03:44	WG2376885
Fluoride	1560		761	1500	10	10/09/2024 03:44	WG2376885
Sulfate	1080000		6370	50000	10	10/09/2024 03:44	WG2376885

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.61	H3	1	10/09/2024 21:40	WG2379195

Sample Narrative:

L1785892-01 WG2379195: 7.61 at 19C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	10/08/2024 13:51	WG2376953

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Beryllium	U		0.401	2.00	1	10/17/2024 11:41	WG2379857
Boron	347		39.6	200	1	10/17/2024 11:41	WG2379857
Calcium	264000		47.3	1000	1	10/17/2024 11:41	WG2379857
Lithium	112		6.89	15.0	1	10/17/2024 11:41	WG2379857

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		1.72	5.00	1	10/21/2024 01:20	WG2378823
Arsenic	1.96		0.195	1.00	1	10/21/2024 01:20	WG2378823
Barium	25.8		0.476	5.00	1	10/21/2024 01:20	WG2378823
Cadmium	U		0.160	1.00	1	10/21/2024 01:20	WG2378823
Chromium	U		5.60	20.0	1	10/21/2024 01:20	WG2378823
Cobalt	0.597	E4	0.142	2.00	1	10/21/2024 01:20	WG2378823
Lead	U		0.513	2.00	1	10/21/2024 01:20	WG2378823
Molybdenum	5.98		0.841	5.00	1	10/21/2024 01:20	WG2378823
Selenium	U		0.437	2.00	1	10/21/2024 01:20	WG2378823
Thallium	U		0.176	1.00	1	10/21/2024 01:20	WG2378823

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	11100000		200000	1	10/06/2024 10:08	WG2376751

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4040000		54700	100000	100	10/09/2024 04:11	WG2376885
Fluoride	879		380	750	5	11/14/2024 15:45	WG2401598
Sulfate	2930000		63700	500000	100	10/09/2024 04:11	WG2376885

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.48	H3	1	10/09/2024 21:40	WG2379195

Sample Narrative:

L1785892-02 WG2379195: 7.48 at 18.3C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	10/08/2024 13:54	WG2376953

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Beryllium	U		0.401	2.00	1	10/17/2024 11:43	WG2379857
Boron	448		39.6	200	1	10/17/2024 11:43	WG2379857
Calcium	721000		47.3	1000	1	10/17/2024 11:43	WG2379857
Lithium	257		6.89	15.0	1	10/17/2024 11:43	WG2379857

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		1.72	5.00	1	10/21/2024 01:23	WG2378823
Arsenic	1.73		0.195	1.00	1	10/21/2024 01:23	WG2378823
Barium	24.1		0.476	5.00	1	10/21/2024 01:23	WG2378823
Cadmium	U		0.160	1.00	1	10/21/2024 01:23	WG2378823
Chromium	U		5.60	20.0	1	10/21/2024 01:23	WG2378823
Cobalt	0.184	E4	0.142	2.00	1	10/21/2024 01:23	WG2378823
Lead	U		0.513	2.00	1	10/21/2024 01:23	WG2378823
Molybdenum	6.79		0.841	5.00	1	10/21/2024 01:23	WG2378823
Selenium	U		0.437	2.00	1	10/21/2024 01:23	WG2378823
Thallium	U		0.176	1.00	1	10/21/2024 01:23	WG2378823

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	20000000		400000	1	10/06/2024 10:08	WG2376751

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	6720000		54700	100000	100	10/09/2024 04:25	WG2376885
Fluoride	U		380	750	5	11/14/2024 16:03	WG2401598
Sulfate	1370000		63700	500000	100	10/09/2024 04:25	WG2376885

Sample Narrative:

L1785892-03 WG2401598: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	6.91	H3	1	10/09/2024 21:40	WG2379195

Sample Narrative:

L1785892-03 WG2379195: 6.91 at 18.3C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	10/08/2024 13:57	WG2376953

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Beryllium	U		0.401	2.00	1	10/17/2024 11:45	WG2379857
Boron	465		39.6	200	1	10/17/2024 11:45	WG2379857
Calcium	2170000		142	3000	3	10/17/2024 15:49	WG2379857
Lithium	229		6.89	15.0	1	10/17/2024 11:45	WG2379857

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		1.72	5.00	1	10/21/2024 01:26	WG2378823
Arsenic	2.83		0.195	1.00	1	10/21/2024 01:26	WG2378823
Barium	61.2		0.476	5.00	1	10/21/2024 01:26	WG2378823
Cadmium	U		0.160	1.00	1	10/21/2024 01:26	WG2378823
Chromium	U		5.60	20.0	1	10/21/2024 01:26	WG2378823
Cobalt	5.08		0.142	2.00	1	10/21/2024 01:26	WG2378823
Lead	U		0.513	2.00	1	10/21/2024 01:26	WG2378823
Molybdenum	4.98	E4	0.841	5.00	1	10/21/2024 01:26	WG2378823
Selenium	U		0.437	2.00	1	10/21/2024 01:26	WG2378823
Thallium	U		0.176	1.00	1	10/21/2024 01:26	WG2378823

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	12000000		200000	1	10/06/2024 10:08	WG2376751

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4270000		54700	100000	100	10/09/2024 05:05	WG2376885
Fluoride	1080		380	750	5	11/14/2024 16:20	WG2401598
Sulfate	2220000		63700	500000	100	10/09/2024 05:05	WG2376885

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.13	H3	1	10/09/2024 21:40	WG2379195

Sample Narrative:

L1785892-04 WG2379195: 7.13 at 18.4C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	10/08/2024 13:59	WG2376953

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Beryllium	U		0.401	2.00	1	10/17/2024 11:47	WG2379857
Boron	698		39.6	200	1	10/17/2024 11:47	WG2379857
Calcium	946000		94.6	2000	2	10/17/2024 15:51	WG2379857
Lithium	314		6.89	15.0	1	10/17/2024 11:47	WG2379857

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		1.72	5.00	1	10/21/2024 01:30	WG2378823
Arsenic	13.3		0.195	1.00	1	10/21/2024 01:30	WG2378823
Barium	21.5		0.476	5.00	1	10/21/2024 01:30	WG2378823
Cadmium	U		0.160	1.00	1	10/21/2024 01:30	WG2378823
Chromium	U		5.60	20.0	1	10/21/2024 01:30	WG2378823
Cobalt	3.34		0.142	2.00	1	10/21/2024 01:30	WG2378823
Lead	U		0.513	2.00	1	10/21/2024 01:30	WG2378823
Molybdenum	5.50		0.841	5.00	1	10/21/2024 01:30	WG2378823
Selenium	U		0.437	2.00	1	10/21/2024 01:30	WG2378823
Thallium	U		0.176	1.00	1	10/21/2024 01:30	WG2378823

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1790000		50000	1	10/06/2024 10:08	WG2376751

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	651000		5470	10000	10	10/09/2024 05:32	WG2376885
Fluoride	242		76.1	150	1	10/09/2024 05:19	WG2376885
Sulfate	200000		637	5000	1	10/09/2024 05:19	WG2376885

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.52	H3	1	10/09/2024 21:40	WG2379195

Sample Narrative:

L1785892-05 WG2379195: 7.52 at 18.6C

Mercury by Method 245.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.100	0.200	1	10/08/2024 14:06	WG2376953

Metals (ICP) by Method 200.7

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Beryllium	U		0.401	2.00	1	10/17/2024 11:48	WG2379857
Boron	176	E4	39.6	200	1	10/17/2024 11:48	WG2379857
Calcium	131000		47.3	1000	1	10/17/2024 11:48	WG2379857
Lithium	37.2		6.89	15.0	1	10/17/2024 11:48	WG2379857

Metals (ICPMS) by Method 200.8

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		1.72	5.00	1	10/21/2024 01:39	WG2378823
Arsenic	6.16		0.195	1.00	1	10/21/2024 01:39	WG2378823
Barium	54.8		0.476	5.00	1	10/21/2024 01:39	WG2378823
Cadmium	U		0.160	1.00	1	10/21/2024 01:39	WG2378823
Chromium	U		5.60	20.0	1	10/21/2024 01:39	WG2378823
Cobalt	1.31	E4	0.142	2.00	1	10/21/2024 01:39	WG2378823
Lead	0.536	E4	0.513	2.00	1	10/21/2024 01:39	WG2378823
Molybdenum	0.871	E4	0.841	5.00	1	10/21/2024 01:39	WG2378823
Selenium	0.457	E4	0.437	2.00	1	10/21/2024 01:39	WG2378823
Thallium	U		0.176	1.00	1	10/21/2024 01:39	WG2378823

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	1690000		50000	1	10/06/2024 10:08	WG2376751

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	663000		5470	10000	10	10/09/2024 05:59	WG2376885
Fluoride	283		76.1	150	1	10/09/2024 05:46	WG2376885
Sulfate	198000		6370	50000	10	10/09/2024 05:59	WG2376885

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.51	H3	1	10/09/2024 21:40	WG2379195

Sample Narrative:

L1785892-06 WG2379195: 7.51 at 18.8C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	10/08/2024 12:41	WG2376953

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Beryllium	U		0.401	2.00	1	10/18/2024 12:12	WG2379859
Boron	167	E4	39.6	200	1	10/18/2024 12:12	WG2379859
Calcium	129000	M3	47.3	1000	1	10/18/2024 12:12	WG2379859
Lithium	34.1		6.89	15.0	1	10/18/2024 12:12	WG2379859

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		1.72	5.00	1	10/21/2024 01:42	WG2378823
Arsenic	4.20		0.195	1.00	1	10/21/2024 01:42	WG2378823
Barium	53.7		0.476	5.00	1	10/21/2024 01:42	WG2378823
Cadmium	U		0.160	1.00	1	10/21/2024 01:42	WG2378823
Chromium	U		5.60	20.0	1	10/21/2024 01:42	WG2378823
Cobalt	1.49	E4	0.142	2.00	1	10/21/2024 01:42	WG2378823
Lead	U		0.513	2.00	1	10/21/2024 01:42	WG2378823
Molybdenum	U		0.841	5.00	1	10/21/2024 01:42	WG2378823
Selenium	U		0.437	2.00	1	10/21/2024 01:42	WG2378823
Thallium	U		0.176	1.00	1	10/21/2024 01:42	WG2378823

Method Blank (MB)

(MB) R4130364-1 10/06/24 10:08

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Dissolved Solids	U		10000	10000

L1783173-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1783173-01 10/06/24 10:08 • (DUP) R4130364-3 10/06/24 10:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	3430000	3470000	1	1.02		10

Sample Narrative:

OS: Original TDS run did not match with EC screen. Sample rerun with results more in line with screen

L1785892-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1785892-06 10/06/24 10:08 • (DUP) R4130364-4 10/06/24 10:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	1690000	1750000	1	3.20		10

Laboratory Control Sample (LCS)

(LCS) R4130364-2 10/06/24 10:08

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8900000	101	85.0-115	

Method Blank (MB)

(MB) R4131403-1 10/08/24 22:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1785632-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1785632-01 10/08/24 23:01 • (DUP) R4131403-3 10/08/24 23:14

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	38500	37700	1	2.17		15
Fluoride	308	300	1	2.43		15
Sulfate	58200	57100	1	1.97		15

L1785632-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1785632-02 10/08/24 23:55 • (DUP) R4131403-6 10/09/24 00:08

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	43700	41400	1	5.29		15
Fluoride	1110	1110	1	0.415		15
Sulfate	18800	18400	1	2.39		15

Laboratory Control Sample (LCS)

(LCS) R4131403-2 10/08/24 22:47

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39900	99.8	90.0-110	
Fluoride	8000	8660	108	90.0-110	
Sulfate	40000	40500	101	90.0-110	

L1785632-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1785632-01 10/08/24 23:01 • (MS) R4131403-4 10/08/24 23:28 • (MSD) R4131403-5 10/08/24 23:41

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	38500	71100	71900	81.5	83.5	1	90.0-110	M2	M2	1.14	15
Fluoride	8000	308	9040	9150	109	111	1	90.0-110		M1	1.17	15
Sulfate	40000	58200	89000	90600	76.9	81.0	1	90.0-110	M2	M2	1.82	15

L1785632-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1785632-02 10/08/24 23:55 • (MS) R4131403-7 10/09/24 00:22

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	43700	40700	0.000	1	90.0-110	M2
Fluoride	8000	1110	9410	104	1	90.0-110	
Sulfate	40000	18800	48200	73.5	1	90.0-110	M2

Method Blank (MB)

(MB) R4146364-1 11/14/24 14:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Fluoride	U		76.1	150

L1794416-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-21 11/14/24 16:55 • (DUP) R4146364-3 11/14/24 17:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Fluoride	403	469	5	15.1	E4 R8	15

L1794416-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-22 11/14/24 18:05 • (DUP) R4146364-6 11/14/24 18:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Fluoride	800	748	5	6.73	E4	15

Laboratory Control Sample (LCS)

(LCS) R4146364-2 11/14/24 14:53

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Fluoride	8000	8180	102	90.0-110	

L1794416-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-21 11/14/24 16:55 • (MS) R4146364-4 11/14/24 17:30 • (MSD) R4146364-5 11/14/24 17:47

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Fluoride	8000	403	8010	8000	95.1	94.9	5	90.0-110			0.220	15

L1794416-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-22 11/14/24 18:05 • (MS) R4146364-7 11/14/24 18:39 • (MSD) R4146364-8 11/14/24 18:57

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Fluoride	8000	800	8790	9010	99.9	103	5	90.0-110			2.41	15

L1794416-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-23 11/14/24 19:14 • (MS) R4146364-9 11/14/24 19:32 • (MSD) R4146364-10 11/14/24 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	8000	472	8330	8260	98.3	97.3	5	90.0-110			0.922	15

L1785584-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1785584-01 10/09/24 21:40 • (DUP) R4130737-2 10/09/24 21:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	SU	su		%		%
pH	8.02	8.03	1	0.125		1

Sample Narrative:

OS: 8.02 at 18.9C

DUP: 8.03 at 18.8C

L1786640-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1786640-01 10/09/24 21:40 • (DUP) R4130737-3 10/09/24 21:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.64	7.64	1	0.000		1

Sample Narrative:

OS: 7.64 at 19.5C

DUP: 7.64 at 19.6C

Laboratory Control Sample (LCS)

(LCS) R4130737-1 10/09/24 21:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 19.5C

Method Blank (MB)

(MB) R4129942-1 10/08/24 12:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

Laboratory Control Sample (LCS)

(LCS) R4129942-2 10/08/24 12:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	3.11	104	85.0-115	

L1785694-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1785694-01 10/08/24 12:26 • (MS) R4129942-4 10/08/24 12:31 • (MSD) R4129942-5 10/08/24 12:33

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	U	3.14	3.17	105	106	1	70.0-130			0.787	20

L1785892-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1785892-06 10/08/24 12:41 • (MS) R4129942-6 10/08/24 12:43 • (MSD) R4129942-7 10/08/24 12:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	U	3.14	3.11	105	104	1	70.0-130			0.730	20

Method Blank (MB)

(MB) R4134106-1 10/17/24 11:01

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Beryllium	U		0.401	2.00
Boron	U		39.6	200
Calcium	U		47.3	1000
Lithium	U		6.89	15.0

Laboratory Control Sample (LCS)

(LCS) R4134106-2 10/17/24 11:03

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Beryllium	1000	967	96.7	85.0-115	
Boron	1000	944	94.4	85.0-115	
Calcium	10000	9840	98.4	85.0-115	
Lithium	1000	995	99.5	85.0-115	

L1785750-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1785750-01 10/17/24 11:05 • (MS) R4134106-4 10/17/24 11:08 • (MSD) R4134106-5 10/17/24 11:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1000	U	971	961	97.1	96.1	1	70.0-130			1.04	20
Boron	1000	204	1140	1130	93.4	92.5	1	70.0-130			0.857	20
Calcium	10000	3880	13800	13600	98.8	97.2	1	70.0-130			1.18	20
Lithium	1000	37.6	997	989	95.9	95.1	1	70.0-130			0.795	20

L1785884-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1785884-02 10/17/24 11:11 • (MS) R4134106-6 10/17/24 11:13 • (MSD) R4134106-7 10/17/24 11:15

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1000	U	987	994	98.7	99.4	1	70.0-130			0.713	20
Boron	1000	U	985	995	98.5	99.5	1	70.0-130			1.00	20
Calcium	10000	66000	75500	73400	95.6	74.0	1	70.0-130			2.90	20
Lithium	1000	U	997	1010	99.7	101	1	70.0-130			1.19	20

Method Blank (MB)

(MB) R4134548-1 10/18/24 12:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Beryllium	U		0.401	2.00
Boron	U		39.6	200
Calcium	U		47.3	1000
Lithium	U		6.89	15.0

Laboratory Control Sample (LCS)

(LCS) R4134548-2 10/18/24 12:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Beryllium	1000	1050	105	85.0-115	
Boron	1000	1040	104	85.0-115	
Calcium	10000	10100	101	85.0-115	
Lithium	1000	1060	106	85.0-115	

L1783582-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1783582-01 10/18/24 12:06 • (MS) R4134548-4 10/18/24 12:09 • (MSD) R4134548-5 10/18/24 12:11

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1000	U	1040	974	104	97.4	1	70.0-130			7.00	20
Boron	1000	U	1030	963	103	96.3	1	70.0-130			6.28	20
Calcium	10000	31000	40600	37000	95.9	60.0	1	70.0-130		M2	9.24	20
Lithium	1000	U	1030	963	103	96.3	1	70.0-130			6.44	20

L1785892-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1785892-06 10/18/24 12:12 • (MS) R4134548-6 10/18/24 12:14 • (MSD) R4134548-7 10/18/24 12:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1000	U	1030	1020	103	102	1	70.0-130			0.947	20
Boron	1000	167	1200	1190	103	102	1	70.0-130			1.17	20
Calcium	10000	129000	146000	145000	167	156	1	70.0-130	M3	M3	0.748	20
Lithium	1000	34.1	1070	1050	103	102	1	70.0-130			1.17	20

Method Blank (MB)

(MB) R4135485-1 10/21/24 00:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony	U		1.72	5.00
Arsenic	U		0.195	1.00
Barium	U		0.476	5.00
Cadmium	U		0.160	1.00
Chromium	U		5.60	20.0
Cobalt	U		0.142	2.00
Lead	U		0.513	2.00
Molybdenum	U		0.841	5.00
Selenium	U		0.437	2.00
Thallium	U		0.176	1.00

Laboratory Control Sample (LCS)

(LCS) R4135485-2 10/21/24 00:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	50.0	52.0	104	85.0-115	
Arsenic	50.0	48.0	96.0	85.0-115	
Barium	50.0	47.0	94.1	85.0-115	
Cadmium	50.0	48.7	97.3	85.0-115	
Chromium	50.0	48.2	96.4	85.0-115	
Cobalt	50.0	49.1	98.1	85.0-115	
Lead	50.0	46.8	93.6	85.0-115	
Molybdenum	50.0	49.2	98.3	85.0-115	
Selenium	50.0	45.9	91.8	85.0-115	
Thallium	50.0	46.6	93.2	85.0-115	

L1783641-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1783641-01 10/21/24 00:33 • (MS) R4135485-4 10/21/24 00:39 • (MSD) R4135485-5 10/21/24 00:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	U	55.2	52.9	110	106	1	70.0-130			4.22	20
Arsenic	50.0	0.378	49.8	48.1	98.9	95.5	1	70.0-130			3.54	20
Barium	50.0	13.3	63.0	59.8	99.3	92.9	1	70.0-130			5.19	20
Cadmium	50.0	U	50.3	48.8	101	97.5	1	70.0-130			3.20	20
Chromium	50.0	U	50.0	47.9	99.9	95.8	1	70.0-130			4.24	20
Cobalt	50.0	0.441	50.9	48.7	101	96.5	1	70.0-130			4.37	20
Lead	50.0	U	49.0	47.7	98.0	95.4	1	70.0-130			2.75	20

L1783641-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1783641-01 10/21/24 00:33 • (MS) R4135485-4 10/21/24 00:39 • (MSD) R4135485-5 10/21/24 00:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	50.0	2.93	53.7	51.3	102	96.8	1	70.0-130			4.46	20
Selenium	50.0	U	48.1	47.0	96.2	94.0	1	70.0-130			2.30	20
Thallium	50.0	U	48.6	47.3	97.2	94.6	1	70.0-130			2.66	20

L1785956-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1785956-01 10/21/24 00:45 • (MS) R4135485-6 10/21/24 00:49 • (MSD) R4135485-7 10/21/24 00:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	2.53	55.3	56.4	106	108	1	70.0-130			1.92	20
Arsenic	50.0	3.05	51.9	52.5	97.6	99.0	1	70.0-130			1.28	20
Barium	50.0	119	165	166	91.4	93.8	1	70.0-130			0.715	20
Cadmium	50.0	0.233	49.9	51.6	99.4	103	1	70.0-130			3.26	20
Chromium	50.0	U	49.7	50.8	99.3	102	1	70.0-130			2.25	20
Cobalt	50.0	8.08	56.9	58.0	97.6	99.8	1	70.0-130			1.92	20
Lead	50.0	6.03	53.3	56.1	94.5	100	1	70.0-130			5.05	20
Molybdenum	50.0	136	184	187	94.8	103	1	70.0-130			2.07	20
Selenium	50.0	0.650	49.0	49.9	96.7	98.5	1	70.0-130			1.88	20
Thallium	50.0	U	47.8	50.5	95.6	101	1	70.0-130			5.47	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
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Project Description:
APS-Cholla

City/State Collected: Jo City Az

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 B,Be,Ca,Li, Hg 250mlHDPE-HNO3	200.8 Metals 250mlHDPE-HNO3	Cl, Fl, SO4, pH 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	Remarks	Sample # (lab only)
CH-EVAP-MW80A-1024		WW		10-3-24	0917	4	X	X	X	X		-01
CH-EVAP-MW81A-1024		WW			1028	4	X	X	X	X		-02
CH-EVAP-MW83A-1024		WW			1159	4	X	X	X	X		-03
CH-EVAP-MW84A-1024		WW			1447	4	X	X	X	X		-04
CH-EVAP-MW85C-1024		WW			1601	4	X	X	X	X		-05
CH-EVAP-FD01-1024		WW			1411	4	X	X	X	X		-06
		WW				4	X	X	X	X		

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # U785892
T C192
Acctnum: **AMECTAZ**
Template: **T259194**
Prelogin: **P1097457**
PM: **288 - Daphne Richards**
PB:
Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.8 Metals-ASG,BAG,CDG,COG,CRG,MOG,PBG,SBG,SEG,TLG. Sub to Pace MN

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4102 9172 0378

PH – 108DH0941
TRC – 3223A228

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-4-24	0955	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10/4/24	1800	Fed EX
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:
1.9+0.3=2.2 24

If preservation required by Login: Date/Time

Date: 10/05/2024 Time: 0900

Hold:

Condition: NCF / OK

PWPAZ

ANALYTICAL REPORT

November 04, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

Sample Delivery Group:	L1785896
Samples Received:	10/05/2024
Project Number:	
Description:	APS Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Donna Eidson
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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SAMPLE SUMMARY

CH-EVAP-MW80A-1024 L1785896-01 Non-Potable Water

Collected by: Brad Hartman
Collected date/time: 10/03/24 09:17
Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2384044	1	10/17/24 13:50	10/30/24 00:50	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2385239	1	10/21/24 23:34	10/31/24 20:15	DDD	Mt. Juliet, TN

CH-EVAP-MW81A-1024 L1785896-02 Non-Potable Water

Collected by: Brad Hartman
Collected date/time: 10/03/24 10:28
Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2384044	1	10/17/24 13:50	10/30/24 00:50	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2385239	1	10/21/24 23:34	10/31/24 20:15	DDD	Mt. Juliet, TN

CH-EVAP-MW83A-1024 L1785896-03 Non-Potable Water

Collected by: Brad Hartman
Collected date/time: 10/03/24 11:59
Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2384044	1	10/17/24 13:50	10/30/24 00:50	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2385239	1	10/21/24 23:34	10/31/24 20:15	DDD	Mt. Juliet, TN

CH-EVAP-MW84A-1024 L1785896-04 Non-Potable Water

Collected by: Brad Hartman
Collected date/time: 10/03/24 14:47
Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2384044	1	10/17/24 13:50	10/30/24 00:50	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2385239	1	10/21/24 23:34	10/31/24 20:15	DDD	Mt. Juliet, TN

CH-EVAP-MW85C-1024 L1785896-05 Non-Potable Water

Collected by: Brad Hartman
Collected date/time: 10/03/24 16:01
Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2384044	1	10/17/24 13:50	10/30/24 01:51	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2385239	1	10/21/24 23:34	10/31/24 20:15	DDD	Mt. Juliet, TN

CH-EVAP-FD01-1024 L1785896-06 Non-Potable Water

Collected by: Brad Hartman
Collected date/time: 10/03/24 14:41
Received date/time: 10/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 903.0/9315	WG2384044	1	10/17/24 13:50	10/30/24 01:51	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2385239	1	10/21/24 23:34	10/31/24 20:15	DDD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Donna Eidson
Project Manager

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	0.333		0.197	0.337	0.228	0.0784	10/30/2024 00:50	WG2384044
(T) Barium	*109*					*30.0-143*	*10/30/2024 00:50*	WG2384044

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.639		0.264	0.477	0.486	0.255	10/31/2024 20:15	WG2385239
(T) Barium	*120*					*30.0-143*	*10/31/2024 20:15*	WG2385239
(T) Yttrium	*87.3*					*30.0-136*	*10/31/2024 20:15*	WG2385239

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	0.773		0.276	0.417	0.185	0.0563	10/30/2024 00:50	WG2384044
(T) Barium	*112*					*30.0-143*	*10/30/2024 00:50*	WG2384044

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.590		0.252	0.462	0.465	0.244	10/31/2024 20:15	WG2385239
(T) Barium	*128*					*30.0-143*	*10/31/2024 20:15*	WG2385239
(T) Yttrium	*89.7*					*30.0-136*	*10/31/2024 20:15*	WG2385239

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	1.27		0.355	0.495	0.230	0.0791	10/30/2024 00:50	WG2384044
(T) Barium	*109*					*30.0-143*	*10/30/2024 00:50*	WG2384044

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.97		0.381	0.677	0.655	0.349	10/31/2024 20:15	WG2385239
(T) Barium	*57.7*					*30.0-143*	*10/31/2024 20:15*	WG2385239
(T) Yttrium	*82.2*					*30.0-136*	*10/31/2024 20:15*	WG2385239

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	0.741		0.269	0.410	0.183	0.0558	10/30/2024 00:50	WG2384044
(T) Barium	*114*					*30.0-143*	*10/30/2024 00:50*	WG2384044

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.990		0.228	0.442	0.402	0.213	10/31/2024 20:15	WG2385239
(T) Barium	*120*					*30.0-143*	*10/31/2024 20:15*	WG2385239
(T) Yttrium	*86.2*					*30.0-136*	*10/31/2024 20:15*	WG2385239

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	1.13		0.335	0.476	0.230	0.0791	10/30/2024 01:51	WG2384044
(T) Barium	*98.9*					*30.0-143*	*10/30/2024 01:51*	WG2384044

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.756		0.289	0.577	0.529	0.280	10/31/2024 20:15	WG2385239
(T) Barium	*100*					*30.0-143*	*10/31/2024 20:15*	WG2385239
(T) Yttrium	*92.7*					*30.0-136*	*10/31/2024 20:15*	WG2385239

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
Radium-226	1.13		0.353	0.505	0.210	0.0642	10/30/2024 01:51	WG2384044
(T) Barium	*87.6*					*30.0-143*	*10/30/2024 01:51*	WG2384044

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.71		0.455	0.770	0.819	0.428	10/31/2024 20:15	WG2385239
(T) Barium	*112*					*30.0-143*	*10/31/2024 20:15*	WG2385239
(T) Yttrium	*79.4*					*30.0-136*	*10/31/2024 20:15*	WG2385239

QUALITY CONTROL SUMMARY

L1785896-01,02,03,04,05,06

Method Blank (MB)

(MB) R4139587-1 10/29/24 22:50

Analyte	MB Result	MB Qualifier	MB 2 sigma CE	MB MDA	MB Lc
	pCi/l		+ / -	pCi/l	pCi/l
Radium-226	0.132		0.0848	0.0919	0.0280
(T) Barium	*104*		*104*		

L1785896-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1785896-01 10/30/24 00:50 • (DUP) R4139587-5 10/29/24 23:50

Analyte	Original Result	Original 2 sigma CE	Original MDA	Original Lc	DUP Result	DUP 2 sigma CE	DUP MDA	DUP Lc	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	pCi/l	+ / -	pCi/l	pCi/l	%			%	
Radium-226	0.333	0.197	0.228	0.0784	0.288	0.266	0.367	0.112	14.5	0.136	J	20	3
(T) Barium	*109*				*107*	*107*							

Laboratory Control Sample (LCS)

(LCS) R4139587-2 10/29/24 23:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.00	5.39	108	80.0-120	
(T) Barium			*105*		

L1788389-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1788389-23 10/30/24 03:51 • (MS) R4139587-3 10/29/24 23:50 • (MSD) R4139587-4 10/29/24 23:50

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	0.360	21.9	25.2	108	124	1	75.0-125			14.0		20
(T) Barium		*105*			*105*	*107*							

Method Blank (MB)

(MB) R4141071-1 10/31/24 20:15

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.0899	U	0.138	0.269	0.142
(T) Barium	*120*		*120*		
(T) Yttrium	*109*		*109*		

L1785896-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1785896-05 10/31/24 20:15 • (DUP) R4141071-5 10/31/24 20:15

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.756	0.289	0.529	0.280	1.34	0.368	0.666	0.348	55.9	1.25		20	3
(T) Barium	*100*				*111*	*111*							
(T) Yttrium	*92.7*				*93.5*	*93.5*							

Laboratory Control Sample (LCS)

(LCS) R4141071-2 10/31/24 20:15

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.07	81.5	80.0-120	
(T) Barium			*124*		
(T) Yttrium			*98.0*		

L1785294-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1785294-01 10/31/24 20:15 • (MS) R4141071-3 10/31/24 20:15 • (MSD) R4141071-4 10/31/24 20:15

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	2.40	16.3	18.2	83.3	94.8	1	70.0-130			11.1		20
(T) Barium		*118*			*109*	*109*							
(T) Yttrium		*88.4*			*111*	*90.4*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To: **samantha.oshea@wsp.com**

Project Description: APS Cholla

City/State Collected: Jo City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLARAD

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	RA-226 1L-HDPE-Add HNO3	RA-228 1L-HDPE-Add HNO3	Remarks	Sample # (lab only)
CH-EVAP-MW80A-1024		NPW		10-3-24	0917	~~3~~ 2	X	X		-01
CH-EVAP-MW81A-1024		NPW			1028	~~3~~ 2	X	X		-02
CH-EVAP-MW83A-1024		NPW			1159	~~3~~ 2	X	X		-03
CH-EVAP-MW84A-1024		NPW			1447	~~3~~ 2	X	X		-04
CH-EVAP-MW85C-1024		NPW			1601	~~3~~ 2	X	X		-05
CH-EVAP-~~MW85C~~ DUP-1024 FD01		NPW			1441	~~3~~ 2	X	X		-06
		NPW				3	X	X		
		NPW				3	X	X		

AB 10/05/2024

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1859816

Tabl C193

Acctnum: **AMECTAZ**
Template: **T259201**
Prelogin: **P1097469**
PM: **288 - Daphne Richards**
PB:
Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	10-4-24	0955		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	10/4/24	1800	FedEx	12
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			Ashley Banks	10/05/2024 0900 PNPAZ

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

LT855896

Fed Ex tracking #	Gun ID	Temperature
4102 9172 0378	TLA9	1.9+0.3=2.2
4102 9172 0389	TLA9	0.1+0.3=0.4

Ashley Baxter
Name

10/05/2024
Date

ANALYTICAL REPORT

December 19, 2024

Revised Report

WSP (Formely Wood E&I)-Phoenix, AZ

Sample Delivery Group:	L1797993
Samples Received:	11/09/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

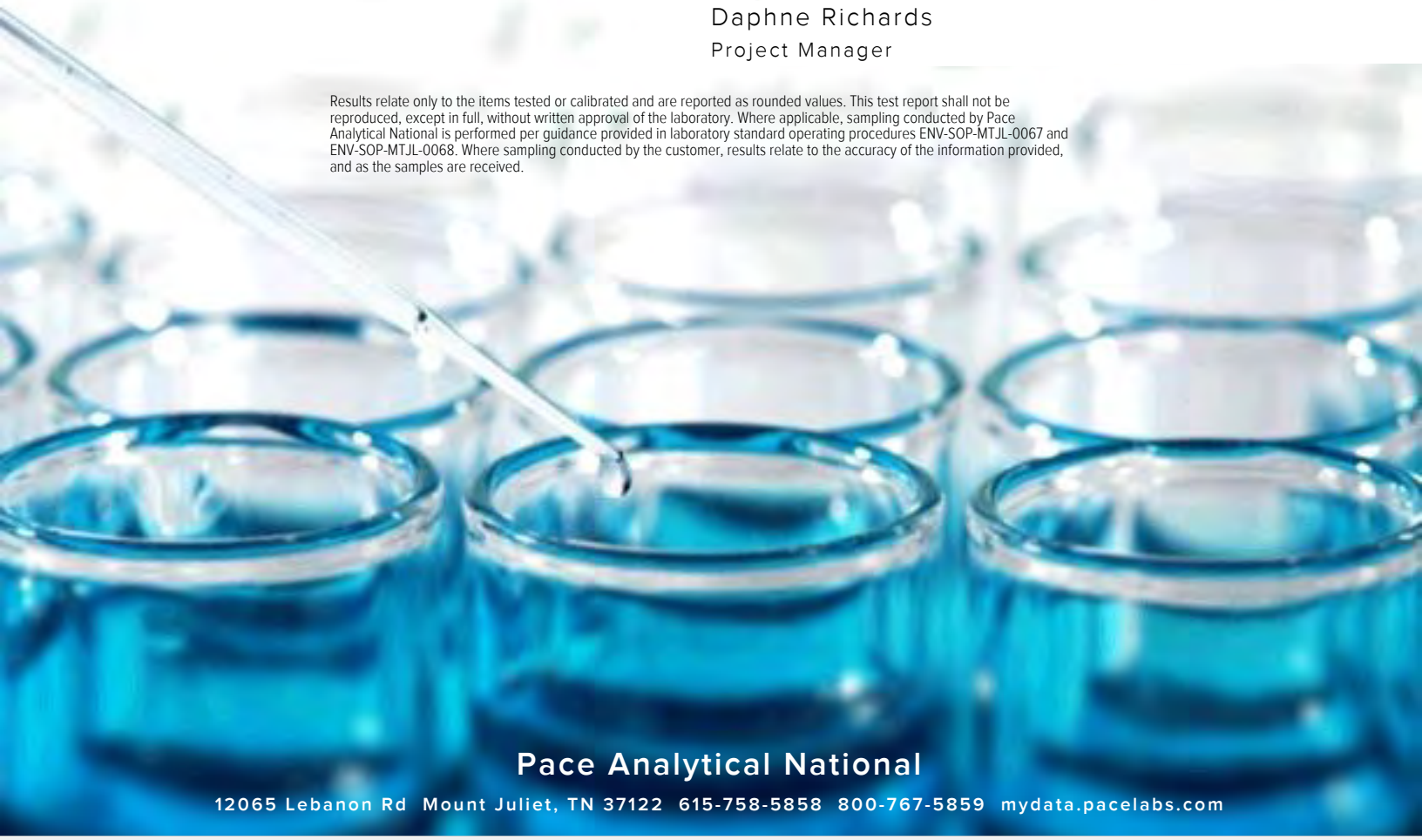
Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-EVAP-MW80A-1124 L1797993-01 WW

Collected by: Brad Hartman | Collected date/time: 11/07/24 10:28 | Received date/time: 11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399890	1	11/12/24 08:14	11/12/24 11:49	JEG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	1	11/15/24 15:00	11/15/24 15:00	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	10	11/15/24 15:13	11/15/24 15:13	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2399640	1	11/12/24 17:15	11/12/24 17:15	KRB	Mt. Juliet, TN
Subcontracted Analyses	WG2400190	1	11/19/24 00:00	11/19/24 00:00	-	Minneapolis, MN 55414

CH-EVAP-MW81A-1124 L1797993-02 WW

Collected by: Brad Hartman | Collected date/time: 11/07/24 11:25 | Received date/time: 11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399890	1	11/12/24 08:14	11/12/24 11:49	JEG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	10	11/15/24 15:54	11/15/24 15:54	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	50	11/15/24 16:07	11/15/24 16:07	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2399640	1	11/12/24 17:15	11/12/24 17:15	KRB	Mt. Juliet, TN
Subcontracted Analyses	WG2400190	1	11/19/24 00:00	11/19/24 00:00	-	Minneapolis, MN 55414

CH-EVAP-MW83A-1124 L1797993-03 WW

Collected by: Brad Hartman | Collected date/time: 11/07/24 14:59 | Received date/time: 11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399886	1	11/12/24 08:07	11/12/24 12:39	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	10	11/15/24 16:20	11/15/24 16:20	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	50	11/15/24 16:34	11/15/24 16:34	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2399640	1	11/12/24 17:15	11/12/24 17:15	KRB	Mt. Juliet, TN
Mercury by Method 245.1	WG2399198	1	11/11/24 17:55	11/12/24 16:16	AKB	Mt. Juliet, TN
Subcontracted Analyses	WG2400190	1	11/19/24 00:00	11/19/24 00:00	-	Minneapolis, MN 55414

CH-EVAP-MW84A-1124 L1797993-04 WW

Collected by: Brad Hartman | Collected date/time: 11/07/24 16:18 | Received date/time: 11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399890	1	11/12/24 08:14	11/12/24 11:49	JEG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	10	11/15/24 16:47	11/15/24 16:47	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	50	11/15/24 17:01	11/15/24 17:01	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2399640	1	11/12/24 17:15	11/12/24 17:15	KRB	Mt. Juliet, TN
Subcontracted Analyses	WG2400190	1	11/19/24 00:00	11/19/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Report Revision History

Level II Report - Version 1: 11/21/24 16:46
Level II Report - Version 2: 12/02/24 10:38

Project Narrative

Additional metals
L1797993 -01, -02, -03, -04 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3430		100	1	11/12/2024 11:49	WG2399890

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	940		5.47	10.0	10	11/15/2024 15:13	WG2398794
Fluoride	0.321		0.0761	0.150	1	11/15/2024 15:00	WG2398794
Sulfate	1190		6.37	50.0	10	11/15/2024 15:13	WG2398794

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.73	H3	1	11/12/2024 17:15	WG2399640

Sample Narrative:

L1797993-01 WG2399640: 7.73 at 18.6C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	11400		200	1	11/12/2024 11:49	WG2399890

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	4020		27.4	50.0	50	11/15/2024 16:07	WG2398794
Fluoride	U		0.761	1.50	10	11/15/2024 15:54	WG2398794
Sulfate	3430		31.8	250	50	11/15/2024 16:07	WG2398794

Sample Narrative:

L1797993-02 WG2398794: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.71	H3	1	11/12/2024 17:15	WG2399640

Sample Narrative:

L1797993-02 WG2399640: 7.71 at 18.4C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	21400		400	1	11/12/2024 12:39	WG2399886

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	3580		27.4	50.0	50	11/15/2024 16:34	WG2398794
Fluoride	U		0.761	1.50	10	11/15/2024 16:20	WG2398794
Sulfate	1630		6.37	50.0	10	11/15/2024 16:20	WG2398794

Sample Narrative:

L1797993-03 WG2398794: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.20	H3	1	11/12/2024 17:15	WG2399640

Sample Narrative:

L1797993-03 WG2399640: 7.2 at 18.3C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000130	0.000200	1	11/12/2024 16:16	WG2399198

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	11700		200	1	11/12/2024 11:49	WG2399890

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	4660		27.4	50.0	50	11/15/2024 17:01	WG2398794
Fluoride	1.11	E4	0.761	1.50	10	11/15/2024 16:47	WG2398794
Sulfate	2660		31.8	250	50	11/15/2024 17:01	WG2398794

Sample Narrative:

L1797993-04 WG2398794: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.45	H3	1	11/12/2024 17:15	WG2399640

Sample Narrative:

L1797993-04 WG2399640: 7.45 at 18.3C

Method Blank (MB)

(MB) R4146133-1 11/12/24 12:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1797808-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1797808-02 11/12/24 12:39 • (DUP) R4146133-3 11/12/24 12:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1510	1500	1	0.664		10

L1798191-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1798191-02 11/12/24 12:39 • (DUP) R4146133-4 11/12/24 12:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	247	241	1	2.46		10

Laboratory Control Sample (LCS)

(LCS) R4146133-2 11/12/24 12:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8830	100	85.0-115	

Method Blank (MB)

(MB) R4146271-1 11/12/24 11:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1797993-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797993-01 11/12/24 11:49 • (DUP) R4146271-3 11/12/24 11:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3430	3440	1	0.291		10

L1798191-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1798191-03 11/12/24 11:49 • (DUP) R4146271-4 11/12/24 11:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	256	258	1	0.778		10

Laboratory Control Sample (LCS)

(LCS) R4146271-2 11/12/24 11:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8750	99.4	85.0-115	

Method Blank (MB)

(MB) R4146990-1 11/15/24 12:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1797819-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797819-01 11/15/24 12:32 • (DUP) R4146990-3 11/15/24 12:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	4.72	4.74	1	0.366		15
Fluoride	0.705	0.738	1	4.52		15
Sulfate	1.63	1.78	1	8.76	E4	15

L1798191-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1798191-01 11/15/24 22:36 • (DUP) R4146990-6 11/15/24 22:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.61	1.38	1	15.2	R8	15
Fluoride	0.197	0.180	1	8.82		15
Sulfate	1.15	1.26	1	9.21	E4	15

Laboratory Control Sample (LCS)

(LCS) R4146990-2 11/15/24 12:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	37.2	93.0	90.0-110	
Fluoride	8.00	7.45	93.2	90.0-110	
Sulfate	40.0	37.5	93.7	90.0-110	

L1797819-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797819-01 11/15/24 12:32 • (MS) R4146990-4 11/15/24 12:59 • (MSD) R4146990-5 11/15/24 13:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	4.72	44.5	45.3	99.5	101	1	90.0-110			1.69	15
Fluoride	8.00	0.705	8.82	9.04	101	104	1	90.0-110			2.38	15
Sulfate	40.0	1.63	41.5	42.5	99.6	102	1	90.0-110			2.34	15

L1798191-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1798191-01 11/15/24 22:36 • (MS) R4146990-7 11/15/24 23:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	1.61	41.8	100	1	90.0-110	
Fluoride	8.00	0.197	8.53	104	1	90.0-110	
Sulfate	40.0	1.15	41.3	100	1	90.0-110	

L1797287-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797287-01 11/12/24 17:15 • (DUP) R4145154-2 11/12/24 17:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.65	5.64	1	0.177		1

Sample Narrative:

OS: 5.65 at 19.1C

DUP: 5.64 at 19C

L1798203-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1798203-01 11/12/24 17:15 • (DUP) R4145154-3 11/12/24 17:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.95	6.96	1	0.144		1

Sample Narrative:

OS: 6.95 at 18.8C

DUP: 6.96 at 18.9C

Laboratory Control Sample (LCS)

(LCS) R4145154-1 11/12/24 17:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 19.8C

Method Blank (MB)

(MB) R4145116-1 11/12/24 15:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000130	0.000200

Laboratory Control Sample (LCS)

(LCS) R4145116-2 11/12/24 15:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00281	93.8	85.0-115	

L1797279-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797279-03 11/12/24 16:01 • (MS) R4145116-4 11/12/24 16:06 • (MSD) R4145116-5 11/12/24 16:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00286	0.00283	95.2	94.2	1	70.0-130			1.06	20

L1797993-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797993-03 11/12/24 16:16 • (MS) R4145116-6 11/12/24 16:19 • (MSD) R4145116-7 11/12/24 16:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00249	0.00264	83.1	88.1	1	70.0-130			5.81	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
R8	Sample RPD exceeded the method acceptance limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Sulfate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres	200.7 - B, Be, Ca, Li, Hg 250mL HNO3	200.8 - Metals - See Note - 250mL HNO3	Cl, Fl, SO4, pH 250mL HDPE-noPres			Remarks	Sample # (lab only)
CH-EVAP-MW80A-1124		WW		11-7-24	1028	4			X			X	X	X				-01
CH-EVAP-MW81A-1124		WW			1125	4			X			X	X	X				-02
CH-EVAP-MW83A-1124		WW			1459	4			X			X	X	X				-03
CH-EVAP-MW84A-1124		WW			1618	4			X			X	X	X				-04
		WW																
		WW																
		WW																
		WW																
		WW																
		WW																

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1717997
K190

Acctnum: **AMECTAZ**
Template:**T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: ~~200.7- Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn~~
~~200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co~~
Sub to Pace MN
200.8 - ASG, BAG, CDG, COG, CRG, MOG, PBG, SBG, SEG, TLG

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4171 6908 1175

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/08/24	13:58	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/8/24	1803	Fed EX
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Temp: °C Bottles Received:
TLA 0.5+0=0.5 16

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Date: 11-09-24 Time: 0900

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 10, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on November 22, 2024, to report to the Method Dectection Limit (MDL).

This report was further revised on December 10, 2024, to update analyte list for method 200.8 and add method 245.1 to all Pace samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10715535001	**CH-EVAP-MW80A-1124**	Water	11/07/24 10:28	11/13/24 08:50
10715535002	**CH-EVAP-MW81A-1124**	Water	11/07/24 11:25	11/13/24 08:50
10715535003	**CH-EVAP-MW83A-1124**	Water	11/07/24 14:59	11/13/24 08:50
10715535004	**CH-EVAP-MW84A-1124**	Water	11/07/24 16:18	11/13/24 08:50

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Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10715535001	**CH-EVAP-MW80A-1124**	EPA 200.8	NN2	14	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715535002	**CH-EVAP-MW81A-1124**	EPA 200.8	NN2	14	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715535003	**CH-EVAP-MW83A-1124**	EPA 200.8	NN2	14	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715535004	**CH-EVAP-MW84A-1124**	EPA 200.8	NN2	14	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

Sample: CH-EVAP-MW80A-1124 **Lab ID: 10715535001** Collected: 11/07/24 10:28 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:31	7440-36-0	D3
Arsenic	**2.1J**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:31	7440-38-2	D3
Barium	**27.3**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:31	7440-39-3	
Beryllium	**<0.42**	ug/L	1.0	0.42	5	11/14/24 12:58	11/15/24 17:31	7440-41-7	D3
Boron	**346**	ug/L	100	22.7	10	11/14/24 12:58	12/09/24 11:19	7440-42-8	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:31	7440-43-9	D3
Calcium	**288000**	ug/L	1000	271	10	11/14/24 12:58	12/05/24 13:58	7440-70-2	
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:31	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:31	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:31	7439-92-1	D3
Lithium	**103**	ug/L	5.0	2.0	10	11/14/24 12:58	12/05/24 13:58	7439-93-2	
Molybdenum	**6.2**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:31	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/14/24 12:58	11/18/24 10:29	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:31	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/04/24 07:27	12/05/24 09:41	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

Sample: CH-EVAP-MW81A-1124 **Lab ID: 10715535002** Collected: 11/07/24 11:25 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:34	7440-36-0	D3
Arsenic	**0.74J**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:34	7440-38-2	D3
Barium	**22.0**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:34	7440-39-3	
Beryllium	**<0.42**	ug/L	1.0	0.42	5	11/14/24 12:58	11/18/24 10:32	7440-41-7	D3
Boron	**564**	ug/L	200	45.4	20	11/14/24 12:58	12/09/24 11:22	7440-42-8	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:34	7440-43-9	D3
Calcium	**710000**	ug/L	2000	542	20	11/14/24 12:58	12/05/24 14:01	7440-70-2	
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:34	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:34	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:34	7439-92-1	D3
Lithium	**264**	ug/L	10.0	4.1	20	11/14/24 12:58	12/05/24 14:01	7439-93-2	
Molybdenum	**3.6**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:34	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/14/24 12:58	11/18/24 10:32	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:34	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/04/24 07:27	12/05/24 09:48	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

Sample: CH-EVAP-MW83A-1124 **Lab ID: 10715535003** Collected: 11/07/24 14:59 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:37	7440-36-0	D3
Arsenic	**3.5**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:37	7440-38-2	
Barium	**55.0**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:37	7440-39-3	
Beryllium	**<0.42**	ug/L	1.0	0.42	5	11/14/24 12:58	11/18/24 10:35	7440-41-7	D3
Boron	**540**	ug/L	500	114	50	11/14/24 12:58	12/09/24 11:25	7440-42-8	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:37	7440-43-9	D3
Calcium	**2260000**	ug/L	5000	1360	50	11/14/24 12:58	12/05/24 14:04	7440-70-2	
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:37	7440-47-3	D3
Cobalt	**3.2**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:37	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:37	7439-92-1	D3
Lithium	**205**	ug/L	25.0	10.2	50	11/14/24 12:58	12/05/24 14:04	7439-93-2	
Molybdenum	**4.2**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:37	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/14/24 12:58	11/18/24 10:35	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:37	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/04/24 07:27	12/05/24 09:57	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

Sample: CH-EVAP-MW84A-1124 **Lab ID: 10715535004** Collected: 11/07/24 16:18 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:40	7440-36-0	D3
Arsenic	**14.7**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:40	7440-38-2	
Barium	**18.9**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:40	7440-39-3	
Beryllium	**<0.42**	ug/L	1.0	0.42	5	11/14/24 12:58	11/15/24 17:40	7440-41-7	D3
Boron	**785**	ug/L	500	114	50	11/14/24 12:58	12/09/24 11:27	7440-42-8	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:40	7440-43-9	D3
Calcium	**1030000**	ug/L	5000	1360	50	11/14/24 12:58	12/05/24 14:07	7440-70-2	
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:40	7440-47-3	D3
Cobalt	**2.6**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:40	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:40	7439-92-1	D3
Lithium	**313**	ug/L	25.0	10.2	50	11/14/24 12:58	12/05/24 14:07	7439-93-2	
Molybdenum	**4.9**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:40	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/14/24 12:58	11/18/24 10:37	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:40	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/04/24 07:27	12/05/24 09:59	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

QC Batch: 982658 | Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 | Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715535001, 10715535002, 10715535003, 10715535004

METHOD BLANK: 5133876 Matrix: Water
Associated Lab Samples: 10715535001, 10715535002, 10715535003, 10715535004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	12/05/24 09:36	

LABORATORY CONTROL SAMPLE: 5133877

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5133878 5133879

Parameter	Units	10715535001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.9	4.9	98	98	70-130	0	20	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

QC Batch: 979753
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715535001, 10715535002, 10715535003, 10715535004

METHOD BLANK: 5118943 Matrix: Water
Associated Lab Samples: 10715535001, 10715535002, 10715535003, 10715535004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/15/24 16:55	
Arsenic	ug/L	<0.12	0.50	0.12	11/15/24 16:55	
Barium	ug/L	<0.070	0.30	0.070	11/15/24 16:55	
Beryllium	ug/L	<0.084	0.20	0.084	11/15/24 16:55	
Boron	ug/L	<2.3	10.0	2.3	12/05/24 13:21	
Cadmium	ug/L	<0.030	0.080	0.030	11/15/24 16:55	
Calcium	ug/L	<27.1	100	27.1	12/05/24 13:21	
Chromium	ug/L	<0.54	2.0	0.54	11/15/24 16:55	
Cobalt	ug/L	<0.095	0.50	0.095	11/15/24 16:55	
Lead	ug/L	<0.18	0.50	0.18	11/15/24 16:55	
Lithium	ug/L	<0.20	0.50	0.20	12/05/24 13:21	
Molybdenum	ug/L	<0.13	0.50	0.13	11/15/24 16:55	
Selenium	ug/L	<0.074	0.50	0.074	11/15/24 16:55	
Thallium	ug/L	<0.026	0.10	0.026	11/15/24 16:55	

LABORATORY CONTROL SAMPLE: 5118944

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	105	105	85-115	
Arsenic	ug/L	100	101	101	85-115	
Barium	ug/L	100	108	108	85-115	
Beryllium	ug/L	100	113	113	85-115	
Boron	ug/L	100	113	113	85-115	
Cadmium	ug/L	100	105	105	85-115	
Calcium	ug/L	2000	2140	107	85-115	
Chromium	ug/L	100	105	105	85-115	
Cobalt	ug/L	100	110	110	85-115	
Lead	ug/L	100	107	107	85-115	
Lithium	ug/L	100	114	114	85-115	
Molybdenum	ug/L	100	109	109	85-115	
Selenium	ug/L	100	108	108	85-115	
Thallium	ug/L	100	106	106	85-115	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5118945 5118946

Parameter	Units	10715534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.44	100	100	105	104	105	104	70-130	1	20	
Arsenic	ug/L	1.8J	100	100	106	105	104	103	70-130	1	20	
Barium	ug/L	16.7	100	100	125	123	109	107	70-130	2	20	
Beryllium	ug/L	<0.42	100	100	104	102	104	102	70-130	2	20	
Boron	ug/L	2000	100	100	2050	2110	54	107	70-130	3	20	P6
Cadmium	ug/L	0.23J	100	100	101	97.9	101	98	70-130	3	20	
Calcium	ug/L	766000	2000	2000	792000	777000	1290	549	70-130	2	20	P6
Chromium	ug/L	12.8	100	100	114	112	101	99	70-130	2	20	
Cobalt	ug/L	1.4J	100	100	108	106	106	105	70-130	2	20	
Lead	ug/L	<0.90	100	100	105	104	104	104	70-130	1	20	
Lithium	ug/L	462	100	100	588	580	126	118	70-130	1	20	
Molybdenum	ug/L	16.6	100	100	128	127	111	110	70-130	1	20	
Selenium	ug/L	6.2	100	100	108	110	101	104	70-130	2	20	
Thallium	ug/L	0.36J	100	100	105	105	105	105	70-130	0	20	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1797993 WG2400190-Revised Report
Pace Project No.: 10715535

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10715535001	**CH-EVAP-MW80A-1124**	EPA 200.8	979753	EPA 200.8	979916
10715535002	**CH-EVAP-MW81A-1124**	EPA 200.8	979753	EPA 200.8	979916
10715535003	**CH-EVAP-MW83A-1124**	EPA 200.8	979753	EPA 200.8	979916
10715535004	**CH-EVAP-MW84A-1124**	EPA 200.8	979753	EPA 200.8	979916
10715535001	**CH-EVAP-MW80A-1124**	EPA 245.1	982658	EPA 245.1	982777
10715535002	**CH-EVAP-MW81A-1124**	EPA 245.1	982658	EPA 245.1	982777
10715535003	**CH-EVAP-MW83A-1124**	EPA 245.1	982658	EPA 245.1	982777
10715535004	**CH-EVAP-MW84A-1124**	EPA 245.1	982658	EPA 245.1	982777

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Sub-Contract Chain of Custody

Batch Date/Time: 11/12/24 14:14
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2400190
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 11/25/24
ESC Purchase Order #: L1797993
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only	
CH-EVAP-MW80A-1124	WW	AZ	11/07/24 10:28	Metals	1. L1797993-01	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl, MATRIXGAZ EDD and MDLRDL	01
CH-EVAP-MW81A-1124	WW	AZ	11/07/24 11:25	Metals	2. L1797993-02	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl, MATRIXGAZ EDD and MDLRDL	02
CH-EVAP-MW83A-1124	WW	AZ	11/07/24 14:59	Metals	3. L1797993-03	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl, MATRIXGAZ EDD and MDLRDL	03
CH-EVAP-MW84A-1124	WW	AZ	11/07/24 16:18	Metals	4. L1797993-04	200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl, MATRIXGAZ EDD and MDLRDL	04

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ Date 11-12-24

Received by: _____ Date 11/13/24 850

Relinquished by: _____ Date _____

Received by: _____ Date _____

WO# : 10715535

10715535

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace Nationwide PROJECT #:

WO#: 10715535

PM: TKL Due Date: 11/27/24

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ Spee Dee ☐ UPS ☐ USPS

TRACKING NUMBER: 4004 0449 9293 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO Seals Intact: ☑ YES ☐ NO Biological Tissue Frozen: ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other Temp Blank: ☑ YES ☐ NO Type of Ice: ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☑ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	Were All Container Temps taken: ☐ YES ☐ NO ☑ N/A
Correction Factor: -0.4 Cooler Temp Read w/Temp Blank: 0.6 °C Cooler Temp Corrected w/Temp Blank: 0.2 °C	Average Corrected Temp (no Temp Blank Only): ____ °C
NOTE: Temp should be above freezing to 6°C.	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): ____	Initials & Date of Person Examining Contents: JMW 11/13/24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☑ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☑ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☐	☑	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: ____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☐	☐ ☑	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☑	☐	☐	12. Sample #: 001: 2/2, 002: 2/2, 003: 2/2, 004: 2/2
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☑	☐	☐	☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				pH Paper Lot # (Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip): 105004
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☑	☐	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): ____

CLIENT NOTIFICATION / RESOLUTION FIELD DATA REQUIRED: ☐ YES ☐ NO

Person Contacted: ____ Date & Time: ____

Comments / Resolution: ____

Project Manager Review: [signature] Date: 11/14/24

NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: JMW Line: 3

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1797993	Pace Quote:	
Phone:	(615) 773-9756 Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	25-Nov	Project #:		Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	**SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Metals	Residual Chlorine (Y/N)	
1	CH-EVAP-MW80A-1124	WT				07-Nov	10:28		1								1		X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb
2	CH-EVAP-MW81A-1124	WT				07-Nov	11:25		1								1		X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb
3	CH-EVAP-MW83A-1124	WT				07-Nov	14:59		1								1		X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb
4	CH-EVAP-MW84A-1124	WT				07-Nov	16:18		1								1		X		200.8 As, Ba, Cd, Co, Cr, Mo, Pb
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	12-Nov	16:26				
Pace Analytical Batch: WG2400190							
Pace Analytical SDGs: L1797993							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: **DATE Signed:**

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

ANALYTICAL REPORT

December 03, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

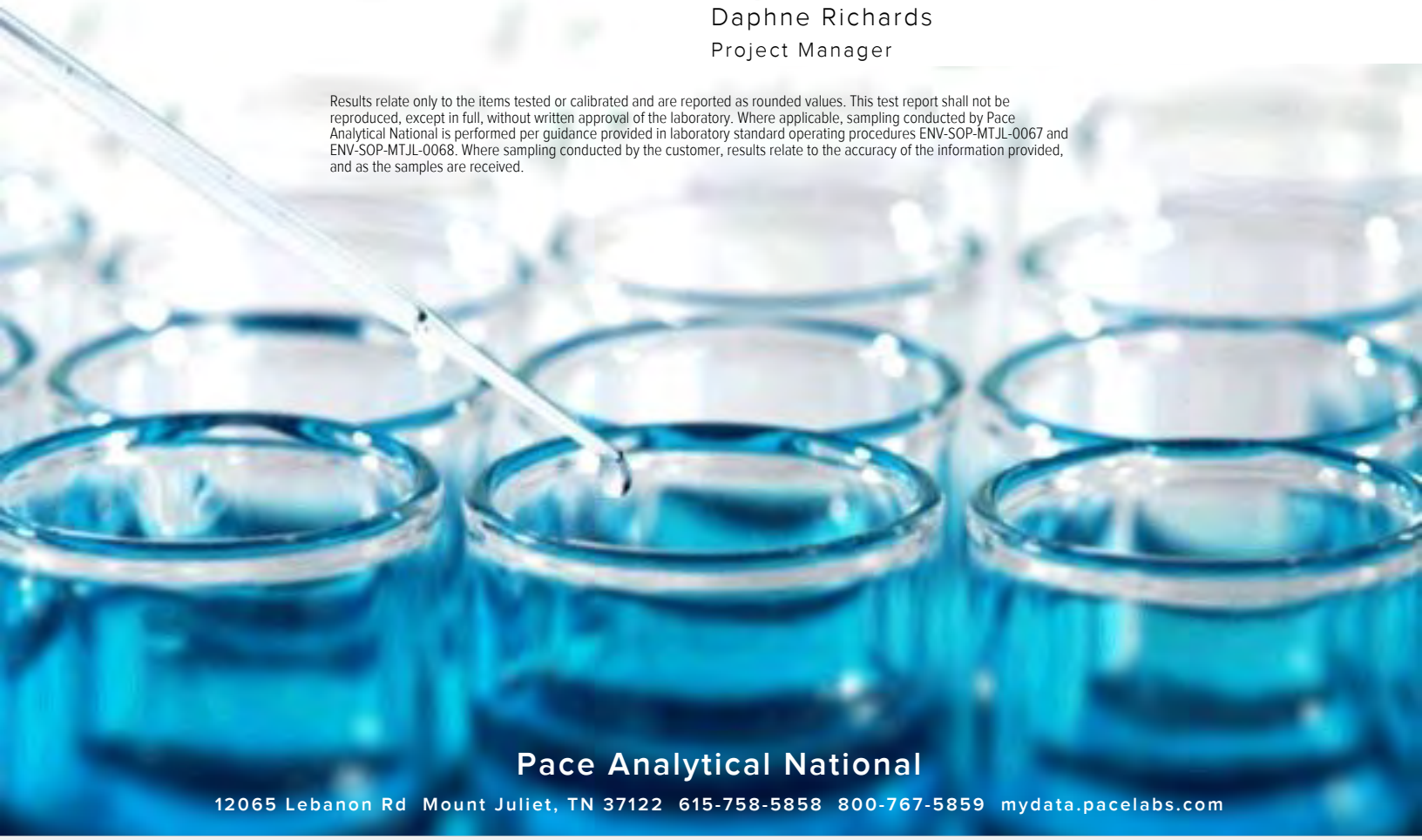
Sample Delivery Group:	L1800177
Samples Received:	11/15/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-EVAP-MW85C-1124 L1800177-01 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	11/11/24 11:08	11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:38	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	1	11/22/24 06:09	11/22/24 06:09	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	10	11/22/24 06:27	11/22/24 06:27	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402750	1	11/15/24 21:45	11/15/24 21:45	BRT	Mt. Juliet, TN
Subcontracted Analyses	WG2403700	1	12/03/24 00:00	12/03/24 00:00	-	Minneapolis, MN 55414

CH-EVAP-FD01-1124 L1800177-02 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	11/11/24 17:38	11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:38	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	1	11/22/24 06:44	11/22/24 06:44	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	10	11/22/24 07:02	11/22/24 07:02	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402750	1	11/15/24 21:45	11/15/24 21:45	BRT	Mt. Juliet, TN
Subcontracted Analyses	WG2403700	1	12/03/24 00:00	12/03/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Project Narrative

L1800177 -01, -02 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	1600000		50000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	669000		5470	10000	10	11/22/2024 06:27	WG2402892
Fluoride	242		76.1	150	1	11/22/2024 06:09	WG2402892
Sulfate	53600		637	5000	1	11/22/2024 06:09	WG2402892

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.56	H3	1	11/15/2024 21:45	WG2402750

Sample Narrative:

L1800177-01 WG2402750: 8.56 at 18.3C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	1560000		50000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	639000		5470	10000	10	11/22/2024 07:02	WG2402892
Fluoride	252		76.1	150	1	11/22/2024 06:44	WG2402892
Sulfate	54800		637	5000	1	11/22/2024 06:44	WG2402892

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.67	H3	1	11/15/2024 21:45	WG2402750

Sample Narrative:

L1800177-02 WG2402750: 8.67 at 18.2C

QUALITY CONTROL SUMMARY

L1800177-01,02

Method Blank (MB)

(MB) R4148527-1 11/18/24 10:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Dissolved Solids	U	E4	10000	10000

L1800177-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800177-01 11/18/24 10:10 • (DUP) R4148527-3 11/18/24 10:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	1600000	1590000	1	0.314		10

L1800897-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1800897-06 11/18/24 10:10 • (DUP) R4148527-4 11/18/24 10:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	6810000	6910000	1	1.46		10

Laboratory Control Sample (LCS)

(LCS) R4148527-2 11/18/24 10:10

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8720000	99.1	85.0-115	

Method Blank (MB)

(MB) R4149387-1 11/21/24 23:11

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1800107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800107-01 11/21/24 23:46 • (DUP) R4149387-3 11/22/24 00:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	13200	13000	1	1.69		15
Sulfate	32600	32700	1	0.410		15

L1800133-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800133-01 11/22/24 00:56 • (DUP) R4149387-6 11/22/24 01:13

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1070	973	1	9.12	E4	15
Fluoride	U	U	1	0.000		15
Sulfate	1180	1210	1	1.81	E4	15

Laboratory Control Sample (LCS)

(LCS) R4149387-2 11/21/24 23:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40400	101	90.0-110	
Fluoride	8000	8210	103	90.0-110	
Sulfate	40000	41800	104	90.0-110	

L1800107-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800107-01 11/21/24 23:46 • (MS) R4149387-4 11/22/24 00:21 • (MSD) R4149387-5 11/22/24 00:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	13200	52200	52100	97.4	97.1	1	90.0-110			0.206	15
Sulfate	40000	32600	68600	69100	90.1	91.3	1	90.0-110			0.673	15

L1800133-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800133-01 11/22/24 00:56 • (MS) R4149387-7 11/22/24 01:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	1070	41800	102	1	90.0-110	
Fluoride	8000	U	8300	104	1	90.0-110	
Sulfate	40000	1180	42600	104	1	90.0-110	

L1800057-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800057-02 11/15/24 21:45 • (DUP) R4146737-2 11/15/24 21:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.70	5.69	1	0.176		1

Sample Narrative:

OS: 5.7 at 18.7C

DUP: 5.69 at 18.6C

L1800309-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1800309-05 11/15/24 21:45 • (DUP) R4146737-3 11/15/24 21:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.83	6.83	1	0.000		1

Sample Narrative:

OS: 6.83 at 19.8C

DUP: 6.83 at 19.7C

Laboratory Control Sample (LCS)

(LCS) R4146737-1 11/15/24 21:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.02 at 19.7C

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

SDG # L1800177
G043

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Acctnum: AMECTAZ
Template: T259142
Prelogin: P1097829
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L-HDPE-NoPres	200.7 - B, Be, Ca, Li, Hg - 250mL HNO3	200.8 - Metals - 250mL HNO3							Remarks	Sample # (lab only)
CH-EVAP-MW85C-1124				11/11/24	1108	4	X	X	X	X								01
CH-EVAP-FD01-1124				11/11/24	1738	4	X	X	X	X								02

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.8 - As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 7315 3193 6956

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Nicolas Garneend	11/14/24	16:12	[signature]		
Relinquished by : (Signature) [signature]	Date: 11/14/24	Time: 1800	Received by: (Signature) FedEX	Temp: °C TLAg 0.4 to -0.9 Bottles Received: 8	If preser... PH – 10BDH0941 TRC – 2352362 ...ne
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 11/15/24 Time: 900	Hold: Condition: NCF / OK

PNPAZ

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 02, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1800177 WG2403700
Pace Project No.: 10716170

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 19, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1800177 WG2403700
Pace Project No.: 10716170

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1800177 WG2403700
Pace Project No.: 10716170

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10716170001	**CH-EVAP-MW85C-1124**	Water	11/11/24 11:08	11/19/24 00:00
10716170002	**CH-EVAP-FD01-1124**	Water	11/11/24 17:38	11/19/24 00:00

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1800177 WG2403700
Pace Project No.: 10716170

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10716170001	**CH-EVAP-MW85C-1124**	EPA 200.7	IP	3	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716170002	**CH-EVAP-FD01-1124**	EPA 200.7	IP	3	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800177 WG2403700
Pace Project No.: 10716170

Sample: CH-EVAP-MW85C-1124 **Lab ID: 10716170001** Collected: 11/11/24 11:08 Received: 11/19/24 00:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:32	7440-41-7	
Boron	**170**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:32	7440-42-8	
Calcium	**105000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:32	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:58	7440-36-0	D3
Arsenic	**18.4**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:58	7440-38-2	
Barium	**56.1**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:58	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:58	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:58	7440-47-3	D3
Cobalt	**0.53J**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:58	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:58	7439-92-1	D3
Lithium	**35.2**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:58	7439-93-2	
Molybdenum	**0.70J**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:58	7439-98-7	D3
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:58	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:58	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 05:02	11/27/24 10:11	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800177 WG2403700
Pace Project No.: 10716170

Sample: CH-EVAP-FD01-1124 **Lab ID: 10716170002** Collected: 11/11/24 17:38 Received: 11/19/24 00:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:34	7440-41-7	
Boron	**177**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:34	7440-42-8	
Calcium	**109000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:34	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:01	7440-36-0	D3
Arsenic	**19.1**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:01	7440-38-2	
Barium	**57.4**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:01	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:01	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:01	7440-47-3	D3
Cobalt	**0.50J**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:01	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:01	7439-92-1	D3
Lithium	**30.5**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:01	7439-93-2	
Molybdenum	**0.64J**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:01	7439-98-7	D3
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:01	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:01	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 05:02	11/27/24 10:12	7439-97-6	

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1800177 WG2403700
Pace Project No.: 10716170

QC Batch: 981521
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716170001, 10716170002

METHOD BLANK: 5128372 Matrix: Water
Associated Lab Samples: 10716170001, 10716170002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/27/24 10:08	

LABORATORY CONTROL SAMPLE: 5128373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128374 5128375

Parameter	Units	10717202001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	5.2	102	104	70-130	2	20	

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1800177 WG2403700
Pace Project No.: 10716170

QC Batch: 981154
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716170001, 10716170002

METHOD BLANK: 5126332 Matrix: Water
Associated Lab Samples: 10716170001, 10716170002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/26/24 15:16	
Boron	ug/L	<16.0	150	16.0	11/26/24 15:16	
Calcium	ug/L	<31.8	500	31.8	11/26/24 15:16	

LABORATORY CONTROL SAMPLE: 5126333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1030	103	85-115	
Boron	ug/L	1000	1040	104	85-115	
Calcium	ug/L	20000	19400	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5126334 5126335

Parameter	Units	10716159001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1010	1050	101	105	70-130	3	20	
Boron	ug/L	238	1000	1000	1260	1300	102	106	70-130	3	20	
Calcium	ug/L	77200	20000	20000	93400	95500	81	92	70-130	2	20	

MATRIX SPIKE SAMPLE: 5126336

Parameter	Units	10716376024 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	1050	105	70-130	
Boron	ug/L	3670	1000	4690	102	70-130	
Calcium	ug/L	490000	20000	499000	45	70-130	P6

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(612)607-1700

QUALITY CONTROL DATA

Project: L1800177 WG2403700
Pace Project No.: 10716170

QC Batch: 981500
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716170001, 10716170002

METHOD BLANK: 5128271 Matrix: Water
Associated Lab Samples: 10716170001, 10716170002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/27/24 09:27	
Arsenic	ug/L	<0.12	0.50	0.12	11/27/24 09:27	
Barium	ug/L	<0.070	0.30	0.070	11/27/24 09:27	
Cadmium	ug/L	<0.030	0.080	0.030	11/27/24 09:27	
Chromium	ug/L	<0.54	2.0	0.54	11/27/24 09:27	
Cobalt	ug/L	<0.095	0.50	0.095	11/27/24 09:27	
Lead	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Lithium	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Molybdenum	ug/L	<0.13	0.50	0.13	11/27/24 09:27	
Selenium	ug/L	<0.074	0.50	0.074	11/27/24 09:27	
Thallium	ug/L	<0.026	0.10	0.026	11/27/24 09:27	

LABORATORY CONTROL SAMPLE: 5128272

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	104	104	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	105	105	85-115	
Cadmium	ug/L	100	102	102	85-115	
Chromium	ug/L	100	110	110	85-115	
Cobalt	ug/L	100	109	109	85-115	
Lead	ug/L	100	107	107	85-115	
Lithium	ug/L	100	106	106	85-115	
Molybdenum	ug/L	100	98.9	99	85-115	
Selenium	ug/L	100	106	106	85-115	
Thallium	ug/L	100	107	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10716159002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.44	100	100	102	101	102	101	70-130	1	20	
Arsenic	ug/L	8.3	100	100	115	111	107	103	70-130	3	20	
Barium	ug/L	26.9	100	100	125	126	98	99	70-130	1	20	
Cadmium	ug/L	<0.15	100	100	99.6	98.9	100	99	70-130	1	20	
Chromium	ug/L	<2.7	100	100	109	108	107	106	70-130	1	20	
Cobalt	ug/L	<0.48	100	100	103	101	102	101	70-130	1	20	

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(612)607-1700

QUALITY CONTROL DATA

Project: L1800177 WG2403700
Pace Project No.: 10716170

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10716159002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	<0.90	100	100	104	102	104	102	70-130	2	20	
Lithium	ug/L	47.0	100	100	159	147	112	100	70-130	8	20	
Molybdenum	ug/L	5.7	100	100	106	105	100	99	70-130	1	20	
Selenium	ug/L	<0.37	100	100	108	100	108	100	70-130	8	20	
Thallium	ug/L	0.18J	100	100	102	101	102	101	70-130	1	20	

MATRIX SPIKE SAMPLE: 5128275

Parameter	Units	10716376023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.44	100	100	100	70-130	
Arsenic	ug/L	1.0J	100	108	107	70-130	
Barium	ug/L	8.8	100	109	100	70-130	
Cadmium	ug/L	0.34J	100	97.3	97	70-130	
Chromium	ug/L	<2.7	100	109	106	70-130	
Cobalt	ug/L	7.2	100	110	103	70-130	
Lead	ug/L	<0.90	100	104	104	70-130	
Lithium	ug/L	182	100	274	92	70-130	
Molybdenum	ug/L	32.3	100	134	101	70-130	
Selenium	ug/L	0.80J	100	102	101	70-130	
Thallium	ug/L	<0.13	100	104	104	70-130	

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REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1800177 WG2403700
Pace Project No.: 10716170

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800177 WG2403700
Pace Project No.: 10716170

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10716170001	**CH-EVAP-MW85C-1124**	EPA 200.7	981154	EPA 200.7	981749
10716170002	**CH-EVAP-FD01-1124**	EPA 200.7	981154	EPA 200.7	981749
10716170001	**CH-EVAP-MW85C-1124**	EPA 200.8	981500	EPA 200.8	981756
10716170002	**CH-EVAP-FD01-1124**	EPA 200.8	981500	EPA 200.8	981756
10716170001	**CH-EVAP-MW85C-1124**	EPA 245.1	981521	EPA 245.1	981753
10716170002	**CH-EVAP-FD01-1124**	EPA 245.1	981521	EPA 245.1	981753

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Sub-Contract Chain of Custody

Batch Date/Time: 11/18/24 10:35
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2403700
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 12/03/24
ESC Purchase Order #: L1800177
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only
CH-EVAP-MW85C-1124	WW	AZ	11/11/24 11:08	Metals	1. L1800177-01	Hg, 200.7 B, Be, Ca, Li, 200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl
CH-EVAP-FD01-1124	WW	AZ	11/11/24 17:38	Metals	2. L1800177-02	Hg, 200.7 B, Be, Ca, Li, 200.8 As, Ba, Cd, Co, Cr, Mo, Pb, Sb, Se, Tl

001
002

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ **Date** 11-18-24

Received by: Pace **Date** 11/19/24 9:00

Relinquished by: _____ **Date** _____

Received by: _____ **Date** _____

T4 1.8°C

WO#: 10716170

10716170

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTJL **PROJECT #:**

WO#: 10716170

PM: TKL **Due Date: 12/05/24**

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 425709333148 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☑ YES ☐ NO **Type of Ice:** ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☑ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: 1.0 **Cooler Temp Read w/Temp Blank:** 1.8 °C **Cooler Temp Corrected w/Temp Blank:** 1.8 °C	**Average Corrected Temp (no Temp Blank Only):** _____ °C
***NOTE:** Temp should be above freezing to 6°C.*	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A Water Sample/Other (describe): _____	**Initials & Date of Person Examining Contents:** 11/19/24 JT1
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used?	☑	☐	☐	8.
– Pace Containers Used?	☑	☐		
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☑	☐	☐	10. Is sediment visible in the dissolved container: ☐ YES ☑ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☑	☐	☐	12. Sample #: 001-002 2/2
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☑	☐	☐	☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #**
				Residual Chlorine: _____ 0-6 Roll: 205224 0-6 Strip: _____ 0-14 Strip: _____
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ **Date:** 11/20/24

***NOTE:** When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: JT1 **Line:** 3

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800177	Pace Quote:	
Phone:	(615) 773-9756 Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	3-Dec	Project #:		Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	**SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals	Residual Chlorine (Y/N)	
																		Requested Analysis Filtered (Y/N)			
1	CH-EVAP-MW85C-1124	WT				11-Nov	11:08		1								1		X		Hg, 200.7 B, Be, Ca, Li, 200.8 A
2	CH-EVAP-FD01-1124	WT				11-Nov	17:38		1								1		X		Hg, 200.7 B, Be, Ca, Li, 200.8 A
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	18-Nov	10:40				
Pace Analytical Batch: WG2403700							
Pace Analytical SDGs: L1800177							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:						
SIGNATURE of SAMPLER:	**DATE Signed:**					

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

ANALYTICAL REPORT

December 20, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

Sample Delivery Group:	L1809503
Samples Received:	12/14/2024
Project Number:	US0023513.3371
Description:	APS-Cholla

Report To:

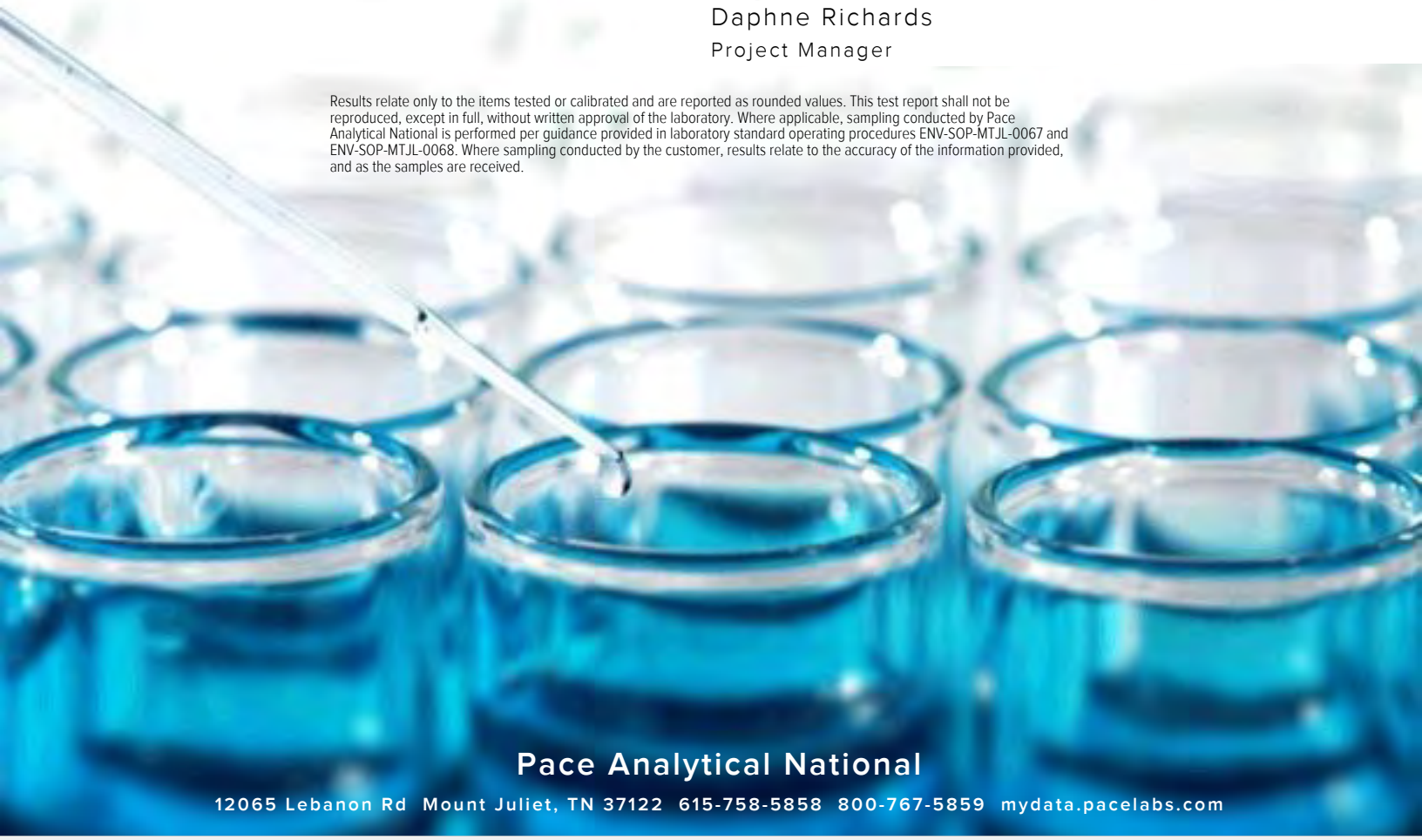
Samantha O'Shea
1230 W. Washington Street
Suite #405
Phoenix, AZ 85281

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-EVAP-MW80-1224 L1809503-01 WW

Collected by: Nicolas Garnand | Collected date/time: 12/11/24 10:23 | Received date/time: 12/14/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2419653	1	12/17/24 07:59	12/17/24 10:24	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	10	12/18/24 07:06	12/18/24 07:06	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	100	12/18/24 07:19	12/18/24 07:19	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2420471	1	12/18/24 08:56	12/18/24 08:56	RJP	Mt. Juliet, TN
Mercury by Method 245.1	WG2419768	1	12/17/24 17:09	12/18/24 13:06	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2421761	1	12/19/24 17:51	12/20/24 02:56	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2420137	1	12/17/24 18:22	12/18/24 01:15	JPD	Mt. Juliet, TN

CH-EVAP-MW81-1224 L1809503-02 WW

Collected by: Nicolas Garnand | Collected date/time: 12/11/24 11:19 | Received date/time: 12/14/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2419653	1	12/17/24 07:59	12/17/24 10:24	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	5	12/18/24 07:32	12/18/24 07:32	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	50	12/18/24 07:45	12/18/24 07:45	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2420471	1	12/18/24 08:56	12/18/24 08:56	RJP	Mt. Juliet, TN
Mercury by Method 245.1	WG2419768	1	12/17/24 17:09	12/18/24 13:08	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2421761	1	12/19/24 17:51	12/20/24 03:33	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2420137	1	12/17/24 18:22	12/18/24 00:51	JPD	Mt. Juliet, TN

CH-EVAP-MW83-1224 L1809503-03 WW

Collected by: Nicolas Garnand | Collected date/time: 12/11/24 13:46 | Received date/time: 12/14/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2419653	1	12/17/24 07:59	12/17/24 10:24	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	10	12/18/24 07:57	12/18/24 07:57	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	100	12/18/24 08:10	12/18/24 08:10	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2420471	1	12/18/24 08:56	12/18/24 08:56	RJP	Mt. Juliet, TN
Mercury by Method 245.1	WG2419768	1	12/17/24 17:09	12/18/24 12:29	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2421761	1	12/19/24 17:51	12/20/24 03:35	JTM	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2421761	5	12/19/24 17:51	12/20/24 12:02	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2420137	1	12/17/24 18:22	12/18/24 01:25	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2420137	1	12/17/24 18:22	12/18/24 11:30	SJM	Mt. Juliet, TN

CH-EVAP-MW84-1224 L1809503-04 WW

Collected by: Nicolas Garnand | Collected date/time: 12/11/24 14:38 | Received date/time: 12/14/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2419653	1	12/17/24 07:59	12/17/24 10:24	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	10	12/18/24 08:48	12/18/24 08:48	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	100	12/18/24 09:01	12/18/24 09:01	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2420471	1	12/18/24 08:56	12/18/24 08:56	RJP	Mt. Juliet, TN
Mercury by Method 245.1	WG2419768	1	12/17/24 17:09	12/18/24 13:11	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2421761	1	12/19/24 17:51	12/20/24 03:37	JTM	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2421761	5	12/19/24 17:51	12/20/24 12:04	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2420137	1	12/17/24 18:22	12/18/24 01:28	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2420137	1	12/17/24 18:22	12/18/24 11:33	SJM	Mt. Juliet, TN

CH-EVAP-MW85-1224 L1809503-05 WW

Collected by: Nicolas Garnand
Collected date/time: 12/11/24 15:36
Received date/time: 12/14/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2419653	1	12/17/24 07:59	12/17/24 10:24	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	1	12/18/24 09:14	12/18/24 09:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	10	12/18/24 09:52	12/18/24 09:52	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2420471	1	12/18/24 08:56	12/18/24 08:56	RJP	Mt. Juliet, TN
Mercury by Method 245.1	WG2419768	1	12/17/24 17:09	12/18/24 13:13	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2421761	1	12/19/24 17:51	12/20/24 03:38	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2420137	1	12/17/24 18:22	12/18/24 11:36	SJM	Mt. Juliet, TN

CH-EVAP-FD01-1224 L1809503-06 WW

Collected by: Nicolas Garnand
Collected date/time: 12/11/24 10:20
Received date/time: 12/14/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2419653	1	12/17/24 07:59	12/17/24 10:24	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	1	12/18/24 10:17	12/18/24 10:17	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2418820	10	12/18/24 10:30	12/18/24 10:30	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2420471	1	12/18/24 08:56	12/18/24 08:56	RJP	Mt. Juliet, TN
Mercury by Method 245.1	WG2419768	1	12/17/24 17:09	12/18/24 13:16	NDL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2421764	1	12/19/24 18:04	12/20/24 10:03	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG2420695	1	12/18/24 08:17	12/18/24 17:08	LD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3300		100	1	12/17/2024 10:24	WG2419653

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	914		5.47	10.0	10	12/18/2024 07:06	WG2418820
Fluoride	U		0.761	1.50	10	12/18/2024 07:06	WG2418820
Sulfate	992		63.7	500	100	12/18/2024 07:19	WG2418820

Sample Narrative:

L1809503-01 WG2418820: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.59	H3	1	12/18/2024 08:56	WG2420471

Sample Narrative:

L1809503-01 WG2420471: 7.59 at 20.4C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000130	0.000200	1	12/18/2024 13:06	WG2419768

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Beryllium	U		0.000354	0.00200	1	12/20/2024 02:56	WG2421761
Boron	0.317		0.0285	0.200	1	12/20/2024 02:56	WG2421761
Calcium	280	M3	0.0879	1.00	1	12/20/2024 02:56	WG2421761
Lithium	0.0991		0.00380	0.0150	1	12/20/2024 02:56	WG2421761

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00142	0.00500	1	12/18/2024 01:15	WG2420137
Arsenic	0.00184		0.000153	0.00100	1	12/18/2024 01:15	WG2420137
Barium	0.0295		0.000369	0.00500	1	12/18/2024 01:15	WG2420137
Cadmium	U		0.000152	0.00100	1	12/18/2024 01:15	WG2420137
Chromium	U		0.00560	0.0200	1	12/18/2024 01:15	WG2420137
Cobalt	0.000321	E4	0.000131	0.00200	1	12/18/2024 01:15	WG2420137
Lead	0.000440	E4	0.000212	0.00200	1	12/18/2024 01:15	WG2420137
Molybdenum	0.00580		0.000351	0.00500	1	12/18/2024 01:15	WG2420137
Selenium	U		0.000334	0.00200	1	12/18/2024 01:15	WG2420137
Thallium	U		0.000195	0.00100	1	12/18/2024 01:15	WG2420137

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	10900		200	1	12/17/2024 10:24	WG2419653

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	4120		27.4	50.0	50	12/18/2024 07:45	WG2418820
Fluoride	0.592	E4	0.380	0.750	5	12/18/2024 07:32	WG2418820
Sulfate	3220		31.8	250	50	12/18/2024 07:45	WG2418820

Sample Narrative:

L1809503-02 WG2418820: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.42	H3	1	12/18/2024 08:56	WG2420471

Sample Narrative:

L1809503-02 WG2420471: 7.42 at 19.3C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000130	0.000200	1	12/18/2024 13:08	WG2419768

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Beryllium	U		0.000354	0.00200	1	12/20/2024 03:33	WG2421761
Boron	0.435		0.0285	0.200	1	12/20/2024 03:33	WG2421761
Calcium	746		0.0879	1.00	1	12/20/2024 03:33	WG2421761
Lithium	0.240		0.00380	0.0150	1	12/20/2024 03:33	WG2421761

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00142	0.00500	1	12/18/2024 00:51	WG2420137
Arsenic	0.000339	E4	0.000153	0.00100	1	12/18/2024 00:51	WG2420137
Barium	0.0211		0.000369	0.00500	1	12/18/2024 00:51	WG2420137
Cadmium	U		0.000152	0.00100	1	12/18/2024 00:51	WG2420137
Chromium	U		0.00560	0.0200	1	12/18/2024 00:51	WG2420137
Cobalt	0.000681	E4	0.000131	0.00200	1	12/18/2024 00:51	WG2420137
Lead	U		0.000212	0.00200	1	12/18/2024 00:51	WG2420137
Molybdenum	0.00266	E4	0.000351	0.00500	1	12/18/2024 00:51	WG2420137
Selenium	U		0.000334	0.00200	1	12/18/2024 00:51	WG2420137
Thallium	U		0.000195	0.00100	1	12/18/2024 00:51	WG2420137

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	16200		400	1	12/17/2024 10:24	WG2419653

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	6900		54.7	100	100	12/18/2024 08:10	WG2418820
Fluoride	U		0.761	1.50	10	12/18/2024 07:57	WG2418820
Sulfate	1480		63.7	500	100	12/18/2024 08:10	WG2418820

Sample Narrative:

L1809503-03 WG2418820: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.04	H3	1	12/18/2024 08:56	WG2420471

Sample Narrative:

L1809503-03 WG2420471: 7.04 at 19.3C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000130	0.000200	1	12/18/2024 12:29	WG2419768

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Beryllium	U		0.000354	0.00200	1	12/20/2024 03:35	WG2421761
Boron	0.466		0.0285	0.200	1	12/20/2024 03:35	WG2421761
Calcium	2410		0.440	5.00	5	12/20/2024 12:02	WG2421761
Lithium	0.240		0.00380	0.0150	1	12/20/2024 03:35	WG2421761

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	0.00184	E4	0.00142	0.00500	1	12/18/2024 01:25	WG2420137
Arsenic	0.00344		0.000153	0.00100	1	12/18/2024 01:25	WG2420137
Barium	0.0602		0.000369	0.00500	1	12/18/2024 01:25	WG2420137
Cadmium	U		0.000152	0.00100	1	12/18/2024 01:25	WG2420137
Chromium	U		0.00560	0.0200	1	12/18/2024 01:25	WG2420137
Cobalt	0.00247		0.000131	0.00200	1	12/18/2024 01:25	WG2420137
Lead	U		0.000212	0.00200	1	12/18/2024 11:30	WG2420137
Molybdenum	0.00373	E4	0.000351	0.00500	1	12/18/2024 01:25	WG2420137
Selenium	U		0.000334	0.00200	1	12/18/2024 01:25	WG2420137
Thallium	U		0.000195	0.00100	1	12/18/2024 11:30	WG2420137

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	11400		200	1	12/17/2024 10:24	WG2419653

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	4650		54.7	100	100	12/18/2024 09:01	WG2418820
Fluoride	0.971	E4	0.761	1.50	10	12/18/2024 08:48	WG2418820
Sulfate	2520		63.7	500	100	12/18/2024 09:01	WG2418820

Sample Narrative:

L1809503-04 WG2418820: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.13	H3	1	12/18/2024 08:56	WG2420471

Sample Narrative:

L1809503-04 WG2420471: 7.13 at 19.5C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000130	0.000200	1	12/18/2024 13:11	WG2419768

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Beryllium	U		0.000354	0.00200	1	12/20/2024 03:37	WG2421761
Boron	0.705		0.0285	0.200	1	12/20/2024 03:37	WG2421761
Calcium	995		0.440	5.00	5	12/20/2024 12:04	WG2421761
Lithium	0.312		0.00380	0.0150	1	12/20/2024 03:37	WG2421761

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00142	0.00500	1	12/18/2024 01:28	WG2420137
Arsenic	0.0127		0.000153	0.00100	1	12/18/2024 01:28	WG2420137
Barium	0.0188		0.000369	0.00500	1	12/18/2024 01:28	WG2420137
Cadmium	U		0.000152	0.00100	1	12/18/2024 01:28	WG2420137
Chromium	U		0.00560	0.0200	1	12/18/2024 01:28	WG2420137
Cobalt	0.00163	E4	0.000131	0.00200	1	12/18/2024 01:28	WG2420137
Lead	U		0.000212	0.00200	1	12/18/2024 11:33	WG2420137
Molybdenum	0.00532		0.000351	0.00500	1	12/18/2024 01:28	WG2420137
Selenium	U		0.000334	0.00200	1	12/18/2024 01:28	WG2420137
Thallium	U		0.000195	0.00100	1	12/18/2024 11:33	WG2420137

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1520		50.0	1	12/17/2024 10:24	WG2419653

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	625		5.47	10.0	10	12/18/2024 09:52	WG2418820
Fluoride	0.436		0.0761	0.150	1	12/18/2024 09:14	WG2418820
Sulfate	2.28	E4	0.637	5.00	1	12/18/2024 09:14	WG2418820

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.30	H3	1	12/18/2024 08:56	WG2420471

Sample Narrative:

L1809503-05 WG2420471: 8.3 at 19.5C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000130	0.000200	1	12/18/2024 13:13	WG2419768

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Beryllium	U		0.000354	0.00200	1	12/20/2024 03:38	WG2421761
Boron	0.160	E4	0.0285	0.200	1	12/20/2024 03:38	WG2421761
Calcium	108		0.0879	1.00	1	12/20/2024 03:38	WG2421761
Lithium	0.0288		0.00380	0.0150	1	12/20/2024 03:38	WG2421761

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00142	0.00500	1	12/18/2024 11:36	WG2420137
Arsenic	0.0211		0.000153	0.00100	1	12/18/2024 11:36	WG2420137
Barium	0.0613		0.000369	0.00500	1	12/18/2024 11:36	WG2420137
Cadmium	U		0.000152	0.00100	1	12/18/2024 11:36	WG2420137
Chromium	U		0.00560	0.0200	1	12/18/2024 11:36	WG2420137
Cobalt	0.000286	E4	0.000131	0.00200	1	12/18/2024 11:36	WG2420137
Lead	U		0.000212	0.00200	1	12/18/2024 11:36	WG2420137
Molybdenum	U		0.000351	0.00500	1	12/18/2024 11:36	WG2420137
Selenium	U		0.000334	0.00200	1	12/18/2024 11:36	WG2420137
Thallium	U		0.000195	0.00100	1	12/18/2024 11:36	WG2420137

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1530		50.0	1	12/17/2024 10:24	WG2419653

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	615		5.47	10.0	10	12/18/2024 10:30	WG2418820
Fluoride	0.452		0.0761	0.150	1	12/18/2024 10:17	WG2418820
Sulfate	1.77	E4	0.637	5.00	1	12/18/2024 10:17	WG2418820

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.43	H3	1	12/18/2024 08:56	WG2420471

Sample Narrative:

L1809503-06 WG2420471: 8.43 at 19.5C

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000130	0.000200	1	12/18/2024 13:16	WG2419768

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Beryllium	U		0.000354	0.00200	1	12/20/2024 10:03	WG2421764
Boron	0.169	E4	0.0285	0.200	1	12/20/2024 10:03	WG2421764
Calcium	117		0.0879	1.00	1	12/20/2024 10:03	WG2421764
Lithium	0.0345		0.00380	0.0150	1	12/20/2024 10:03	WG2421764

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U	L1	0.00142	0.00500	1	12/18/2024 17:08	WG2420695
Arsenic	0.0236		0.000153	0.00100	1	12/18/2024 17:08	WG2420695
Barium	0.0574		0.000369	0.00500	1	12/18/2024 17:08	WG2420695
Cadmium	U		0.000152	0.00100	1	12/18/2024 17:08	WG2420695
Chromium	U		0.00560	0.0200	1	12/18/2024 17:08	WG2420695
Cobalt	0.000283	E4	0.000131	0.00200	1	12/18/2024 17:08	WG2420695
Lead	U		0.000212	0.00200	1	12/18/2024 17:08	WG2420695
Molybdenum	0.000395	E4	0.000351	0.00500	1	12/18/2024 17:08	WG2420695
Selenium	U	M2	0.000334	0.00200	1	12/18/2024 17:08	WG2420695
Thallium	U		0.000195	0.00100	1	12/18/2024 17:08	WG2420695

Method Blank (MB)

(MB) R4160377-1 12/17/24 10:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1809503-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1809503-01 12/17/24 10:24 • (DUP) R4160377-3 12/17/24 10:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3300	3310	1	0.303		10

L1809880-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1809880-03 12/17/24 10:24 • (DUP) R4160377-4 12/17/24 10:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2870	2820	1	1.76		10

Laboratory Control Sample (LCS)

(LCS) R4160377-2 12/17/24 10:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8840	100	85.0-115	

Method Blank (MB)

(MB) R4159337-1 12/18/24 00:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1809320-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1809320-01 12/18/24 06:16 • (DUP) R4159337-3 12/18/24 06:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	11.3	11.1	1	1.77		15
Fluoride	0.159	0.157	1	1.71		15
Sulfate	8.16	8.03	1	1.61		15

L1809503-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1809503-05 12/18/24 09:14 • (DUP) R4159337-6 12/18/24 09:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.436	0.435	1	0.138		15
Sulfate	2.28	2.23	1	2.29	E4	15

L1809503-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1809503-05 12/18/24 09:52 • (DUP) R4159337-8 12/18/24 10:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	625	624	10	0.116		15

Laboratory Control Sample (LCS)

(LCS) R4159337-2 12/18/24 00:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.1	97.8	90.0-110	
Fluoride	8.00	8.06	101	90.0-110	
Sulfate	40.0	38.9	97.1	90.0-110	

L1809320-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1809320-01 12/18/24 06:16 • (MS) R4159337-4 12/18/24 06:41 • (MSD) R4159337-5 12/18/24 06:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	11.3	48.9	48.7	94.1	93.6	1	90.0-110			0.402	15
Fluoride	8.00	0.159	8.25	8.24	101	101	1	90.0-110			0.0874	15
Sulfate	40.0	8.16	46.3	46.1	95.4	94.9	1	90.0-110			0.439	15

L1809503-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1809503-05 12/18/24 09:14 • (MS) R4159337-7 12/18/24 09:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	628	546	0.000	1	90.0-110	E1 M3
Fluoride	8.00	0.436	8.02	94.8	1	90.0-110	
Sulfate	40.0	2.28	40.7	96.1	1	90.0-110	

L1809503-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1809503-01 12/18/24 08:56 • (DUP) R4159137-2 12/18/24 08:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.59	7.63	1	0.526		1

Sample Narrative:

OS: 7.59 at 20.4C

DUP: 7.63 at 20.2C

L1810061-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1810061-01 12/18/24 08:56 • (DUP) R4159137-3 12/18/24 08:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.22	7.20	1	0.277		1

Sample Narrative:

OS: 7.22 at 19.8C

DUP: 7.2 at 19.7C

Laboratory Control Sample (LCS)

(LCS) R4159137-1 12/18/24 08:56

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.97	99.7	99.0-101	

Sample Narrative:

LCS: 9.97 at 20.4C

Method Blank (MB)

(MB) R4159292-1 12/18/24 12:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000130	0.000200

Laboratory Control Sample (LCS)

(LCS) R4159292-2 12/18/24 12:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00293	97.6	85.0-115	

L1808510-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1808510-01 12/18/24 12:18 • (MS) R4159292-4 12/18/24 12:23 • (MSD) R4159292-8 12/18/24 12:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	0.000136	0.00277	0.00282	87.8	89.3	1	70.0-130			1.65	20

L1809503-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1809503-03 12/18/24 12:29 • (MS) R4159292-6 12/18/24 12:31 • (MSD) R4159292-7 12/18/24 12:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00263	0.00261	87.8	87.1	1	70.0-130			0.777	20

Method Blank (MB)

(MB) R4160170-1 12/20/24 02:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Beryllium	U		0.000354	0.00200
Boron	U		0.0285	0.200
Calcium	U		0.0879	1.00
Lithium	U		0.00380	0.0150

Laboratory Control Sample (LCS)

(LCS) R4160170-2 12/20/24 02:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Beryllium	1.00	0.961	96.1	85.0-115	
Boron	1.00	0.936	93.6	85.0-115	
Calcium	10.0	9.58	95.8	85.0-115	
Lithium	1.00	0.986	98.6	85.0-115	

L1808807-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1808807-01 12/20/24 02:49 • (MS) R4160170-4 12/20/24 02:52 • (MSD) R4160170-5 12/20/24 02:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1.00	U	0.993	0.959	99.3	95.9	1	70.0-130			3.51	20
Boron	1.00	U	0.977	0.942	97.7	94.2	1	70.0-130			3.66	20
Calcium	10.0	40.9	54.2	53.3	133	124	1	70.0-130	M3		1.56	20
Lithium	1.00	U	1.01	0.985	101	98.5	1	70.0-130			2.46	20

L1809503-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1809503-01 12/20/24 02:56 • (MS) R4160170-6 12/20/24 02:58 • (MSD) R4160170-7 12/20/24 02:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1.00	U	0.943	0.972	94.3	97.2	1	70.0-130			2.99	20
Boron	1.00	0.317	1.22	1.26	90.5	94.7	1	70.0-130			3.37	20
Calcium	10.0	280	284	291	37.2	106	1	70.0-130	M3		2.39	20
Lithium	1.00	0.0991	1.05	1.08	95.4	98.4	1	70.0-130			2.79	20

Method Blank (MB)

(MB) R4160443-1 12/20/24 09:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Beryllium	U		0.000354	0.00200
Boron	U		0.0285	0.200
Calcium	U		0.0879	1.00
Lithium	U		0.00380	0.0150

Laboratory Control Sample (LCS)

(LCS) R4160443-2 12/20/24 09:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Beryllium	1.00	0.982	98.2	85.0-115	
Boron	1.00	0.963	96.3	85.0-115	
Calcium	10.0	9.85	98.5	85.0-115	
Lithium	1.00	1.00	100	85.0-115	

L1809345-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1809345-03 12/20/24 09:46 • (MS) R4160443-4 12/20/24 09:49 • (MSD) R4160443-5 12/20/24 09:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1.00	U	0.986	0.980	98.6	98.0	1	70.0-130			0.579	20
Boron	1.00	U	0.973	0.974	97.3	97.4	1	70.0-130			0.0561	20
Calcium	10.0	80.3	89.4	91.7	91.1	114	1	70.0-130			2.57	20
Lithium	1.00	U	1.02	1.01	102	101	1	70.0-130			0.337	20

L1809824-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1809824-02 12/20/24 09:53 • (MS) R4160443-6 12/20/24 09:54 • (MSD) R4160443-7 12/20/24 09:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1.00	U	0.950	0.980	95.0	98.0	1	70.0-130			3.18	20
Boron	1.00	0.289	1.21	1.25	92.0	95.6	1	70.0-130			2.96	20
Calcium	10.0	3.85	13.3	13.8	94.4	99.3	1	70.0-130			3.61	20
Lithium	1.00	U	0.963	1.01	96.3	101	1	70.0-130			4.39	20

Method Blank (MB)

(MB) R4159068-1 12/18/24 00:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00142	0.00500
Arsenic	U		0.000153	0.00100
Barium	U		0.000369	0.00500
Cadmium	U		0.000152	0.00100
Chromium	U		0.00560	0.0200
Cobalt	U		0.000131	0.00200
Lead	U		0.000212	0.00200
Molybdenum	U		0.000351	0.00500
Selenium	U		0.000334	0.00200
Thallium	U		0.000195	0.00100

Laboratory Control Sample (LCS)

(LCS) R4159068-2 12/18/24 00:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0498	99.7	85.0-115	
Arsenic	0.0500	0.0492	98.4	85.0-115	
Barium	0.0500	0.0474	94.8	85.0-115	
Cadmium	0.0500	0.0500	100	85.0-115	
Chromium	0.0500	0.0479	95.9	85.0-115	
Cobalt	0.0500	0.0488	97.6	85.0-115	
Lead	0.0500	0.0467	93.3	85.0-115	
Molybdenum	0.0500	0.0469	93.8	85.0-115	
Selenium	0.0500	0.0474	94.9	85.0-115	
Thallium	0.0500	0.0478	95.6	85.0-115	

L1809503-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1809503-02 12/18/24 00:51 • (MS) R4159068-4 12/18/24 00:58 • (MSD) R4159068-5 12/18/24 01:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0566	0.0564	113	113	1	70.0-130			0.408	20
Arsenic	0.0500	0.000339	0.0477	0.0489	94.7	97.0	1	70.0-130			2.41	20
Barium	0.0500	0.0211	0.0769	0.0741	111	106	1	70.0-130			3.62	20
Cadmium	0.0500	U	0.0441	0.0436	88.2	87.2	1	70.0-130			1.14	20
Chromium	0.0500	U	0.0519	0.0510	104	102	1	70.0-130			1.79	20
Cobalt	0.0500	0.000681	0.0468	0.0469	92.2	92.4	1	70.0-130			0.160	20
Lead	0.0500	U	0.0468	0.0481	93.5	96.2	1	70.0-130			2.83	20

L1809503-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1809503-02 12/18/24 00:51 • (MS) R4159068-4 12/18/24 00:58 • (MSD) R4159068-5 12/18/24 01:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	0.0500	0.00266	0.0538	0.0530	102	101	1	70.0-130			1.46	20
Selenium	0.0500	U	0.0493	0.0491	98.7	98.2	1	70.0-130			0.517	20
Thallium	0.0500	U	0.0460	0.0453	92.1	90.6	1	70.0-130			1.58	20

Method Blank (MB)

(MB) R4159456-1 12/18/24 17:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00142	0.00500
Arsenic	U		0.000153	0.00100
Barium	U		0.000369	0.00500
Cadmium	U		0.000152	0.00100
Chromium	U		0.00560	0.0200
Cobalt	U		0.000131	0.00200
Lead	U		0.000212	0.00200
Molybdenum	U		0.000351	0.00500
Selenium	U		0.000334	0.00200
Thallium	U		0.000195	0.00100

Laboratory Control Sample (LCS)

(LCS) R4159456-2 12/18/24 17:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0583	117	85.0-115	L1
Arsenic	0.0500	0.0488	97.5	85.0-115	
Barium	0.0500	0.0471	94.2	85.0-115	
Cadmium	0.0500	0.0483	96.5	85.0-115	
Chromium	0.0500	0.0493	98.5	85.0-115	
Cobalt	0.0500	0.0489	97.7	85.0-115	
Lead	0.0500	0.0472	94.4	85.0-115	
Molybdenum	0.0500	0.0485	97.0	85.0-115	
Selenium	0.0500	0.0469	93.8	85.0-115	
Thallium	0.0500	0.0467	93.4	85.0-115	

L1809503-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1809503-06 12/18/24 17:08 • (MS) R4159456-4 12/18/24 17:14 • (MSD) R4159456-5 12/18/24 17:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0618	0.0603	124	121	1	70.0-130			2.44	20
Arsenic	0.0500	0.0236	0.0749	0.0749	103	103	1	70.0-130			0.0428	20
Barium	0.0500	0.0574	0.110	0.109	106	103	1	70.0-130			1.36	20
Cadmium	0.0500	U	0.0493	0.0482	98.6	96.4	1	70.0-130			2.24	20
Chromium	0.0500	U	0.0489	0.0482	97.7	96.4	1	70.0-130			1.37	20
Cobalt	0.0500	0.000283	0.0480	0.0483	95.4	96.1	1	70.0-130			0.669	20
Lead	0.0500	U	0.0479	0.0478	95.8	95.5	1	70.0-130			0.287	20

L1809503-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1809503-06 12/18/24 17:08 • (MS) R4159456-4 12/18/24 17:14 • (MSD) R4159456-5 12/18/24 17:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Molybdenum	0.0500	0.000395	0.0498	0.0492	98.9	97.5	1	70.0-130			1.35	20
Selenium	0.0500	U	0.00846	0.00949	16.9	19.0	1	70.0-130	M2	M2	11.5	20
Thallium	0.0500	U	0.0476	0.0472	95.1	94.5	1	70.0-130			0.699	20

L1810294-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1810294-03 12/18/24 17:21 • (MS) R4159456-6 12/18/24 17:24 • (MSD) R4159456-7 12/18/24 17:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0555	0.0559	111	112	1	70.0-130			0.894	20
Arsenic	0.0500	0.000786	0.0470	0.0483	92.5	95.0	1	70.0-130			2.63	20
Barium	0.0500	0.0105	0.0535	0.0548	86.0	88.6	1	70.0-130			2.37	20
Cadmium	0.0500	U	0.0452	0.0474	90.4	94.8	1	70.0-130			4.71	20
Chromium	0.0500	U	0.0466	0.0478	93.3	95.5	1	70.0-130			2.38	20
Cobalt	0.0500	0.000332	0.0464	0.0481	92.2	95.5	1	70.0-130			3.53	20
Lead	0.0500	0.000815	0.0453	0.0471	89.0	92.6	1	70.0-130			3.94	20
Molybdenum	0.0500	0.000871	0.0465	0.0472	91.4	92.7	1	70.0-130			1.41	20
Selenium	0.0500	U	0.0451	0.0462	90.2	92.5	1	70.0-130			2.51	20
Thallium	0.0500	U	0.0442	0.0459	88.4	91.7	1	70.0-130			3.65	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
L1	The associated blank spike recovery was above laboratory acceptance limits.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1609503
E217

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City, AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project # US0023513.3371

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Nicolas Garnand

Site/Facility ID #

P.O. # P104414US024

Collected by (signature): Nicolas Garnand

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Acctnum: AMECTAZ
Template: T259194
Prelogin: P1119779
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 B,Be,Ca,Li, Hg 250mlHDPE-HNO3 <2	200.8 Metals 250mlHDPE-HNO3 <2	Cl, Fl, SO4, pH 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres							Remarks	Sample # (lab only)
CH-EVAP-MW80-1224	~~Comp~~ NG	WW		12/11/24	10:23	4	X	X	X	X								01
CH-EVAP-MW81-1224		WW			11:19	4	X	X	X	X								02
CH-EVAP-MW83-1224		WW			13:46	4	X	X	X	X								03
CH-EVAP-MW84-1224		WW			14:38	4	X	X	X	X								04
CH-EVAP-MW85-1224		WW			15:36	4	X	X	X	X								05
~~CH-EVAP-MW85-1224-MS~~		~~WW~~			~~15:36~~	~~4~~	~~X~~	~~X~~	~~X~~	~~X~~	NG							
~~CH-EVAP-MW85-1224-MSD~~ NG		~~WW~~			~~15:36~~	~~4~~	~~X~~	~~X~~	~~X~~	~~X~~	NG							
CH-EVAP-FD01-1224		WW			10:20	4	X	X	X	X								06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.8 Metals-ASG,BAG,CDG,COG,CRG,MOG,PBG,SBG,SEG,TLG. Sub to Pace MN

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Nicolas Garnand	12/13/24	1607	Amber Myers	
Amber Myers	12/13/24	1800	SNA	Temp: 12A °C 0.8+0=0.8 Bottles Received: 24
			Received for lab by: (Signature)	Date: 12-14-24 Time: 0800
			[signature] 17	

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPA2

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 04, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW66A-1024	< 0.5	0.9 ± 0.3	0.9 ± 0.3

Date of Analysis	11/20/2024	11/20/2024	11/20/2024
	20:23	20:23	20:23

Robert L. Metzger, Ph.D., C.H.P. 11/25/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 4, 2024 (Sample Date) 11:22 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/20/2024	0.9 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/20/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/20/2024	0.9 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

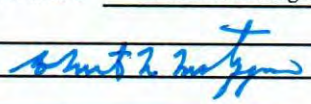
Specimen Number: RSE75769

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW66A-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 04, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M45A-1024	< 0.5	1.4 ± 0.3	1.4 ± 0.3

Date of Analysis	11/21/2024	11/21/2024	11/21/2024
	0:26	0:26	0:26

11/25/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 4, 2024 (Sample Date) 12:57 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/21/2024	1.4 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/21/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/21/2024	1.4 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75770

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M45A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 06, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M51A-1024	< 0.5	< 0.7	< 0.7

Date of Analysis	11/21/2024	11/21/2024	11/21/2024
	4:28	4:28	4:28

Robert L. Metzger, Ph.D., C.H.P. 11/25/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 6, 2024 (Sample Date) 13:15 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/21/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/21/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/21/2024	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75771

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M51A-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 06, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M50A-1024	< 0.5	< 0.7	< 0.7

Date of Analysis	11/21/2024	11/21/2024	11/21/2024
	8:30	8:30	8:30

Robert L. Metzger, Ph.D., C.H.P. 11/25/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 6, 2024 (Sample Date) 14:11 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/21/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/21/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/21/2024	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75772

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M50A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 06, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W123R-1024	0.8 ± 0.2	1.1 ± 0.3	1.9 ± 0.4

Date of Analysis	11/24/2024 12:32	11/24/2024 12:32	11/24/2024 12:32

Robert L. Metzger, Ph.D., C.H.P. 11/25/2024
Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 6, 2024 (Sample Date) 15:07 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/24/2024	1.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2024	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2024	1.1 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75773

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W123R-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 06, 2024
Sample Received: November 08, 2024
Analysis Completed: November 25, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W125-1024	2.4 ± 0.3	1.2 ± 0.3	3.6 ± 0.4

Date of Analysis	11/21/2024 16:34	11/21/2024 16:34	11/21/2024 16:34

Robert L. Metzger, Ph.D., C.H.P. 11/25/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 6, 2024 (Sample Date) 16:05 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/21/2024	3.6 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/21/2024	2.4 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/21/2024	1.2 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

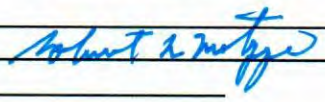
Specimen Number: RSE75774

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W125-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information	
Name:	**Cody Miller/480-209-6529**
Company	**Arizona Public Service**
Address	**4801 Cholla Lake Rd, Joseph City, AZ 86032**
Phone	**928-587-0319**
Site	**APS Cholla Power Plant (~~BAP~~)**

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-MW66A-1024	11-4-24	1122	GW						X	X	X						75769
CH-CCR-M45A-1024	↓	1257	GW						X	X	X						75770
CH-CCR-MS1A-1024	11-6-24	1315	GW						X	X	X						75771
CH-CCR-MS0A-1024	|	1411	GW						X	X	X						75772
CH-CCR-W123R-1024	|	1507	GW						X	X	X						75773
CH-CCR-W125-1024	↓	1605	GW						X	X	X						75774
			GW						X	X	X						
			GW						X	X	X						
			GW						X	X	X						
			GW						X	X	X						

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300592346

Instructions/Comments
Method HPGe

11-8-24

Relinquished By: BSJL	Company: WSP	Date/time: 1228	Received By: Kate Flannery		Company: RSE	Date/time: 11.8.24	12:28
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 11, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M440-1024	2.7 ± 0.3	0.8 ± 0.4	3.5 ± 0.5

Date of Analysis	11/28/2024 6:16	11/28/2024 6:16	11/28/2024 6:16

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____

PWS Name: _____

November 11, 2024 (Sample Date) 15:02 (Sample Time) (24 hour clock)

Owner/Contact Person _____

Owner/Contact Fax Number _____

Owner/Contact Phone Number _____

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	3.5 ± 0.5		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	2.7 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	0.8 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75810

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M440-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 11, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W305-1024	0.9 ± 0.2	< 0.8	0.9 ± 0.2

Date of Analysis	11/28/2024 10:18	11/28/2024 10:18	11/28/2024 10:18

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 11, 2024 (Sample Date) 17:22 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75811

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W305-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 11, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW79A-1024	1.1 ± 0.2	1.6 ± 0.4	2.7 ± 0.4

Date of Analysis	11/28/2024 14:20	11/28/2024 14:20	11/28/2024 14:20

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 11, 2024 (Sample Date) 18:10 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000			
EPA 00-02		3 pCi/L	Gross Alpha	4002			
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	2.7 ± 0.4	
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	1.1 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	1.6 ± 0.4	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75812

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW79A-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M67A-1024	1.1 ± 0.2	< 0.8	1.1 ± 0.2

Date of Analysis	11/28/2024 18:22	11/28/2024 18:22	11/28/2024 18:22

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 12:37 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000			
EPA 00-02		3 pCi/L	Gross Alpha	4002			
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	1.1 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	1.1 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	< 0.8	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75813

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M67A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M46A-1024	1.0 ± 0.2	< 0.8	1.0 ± 0.2

Date of Analysis	11/28/2024 22:24	11/28/2024 22:24	11/28/2024 22:24

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 15:13 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

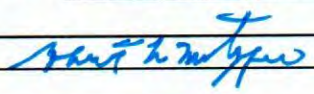
Specimen Number: RSE75814

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M46A-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW65A-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/29/2024 2:26	11/29/2024 2:26	11/29/2024 2:26

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 16:40 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75815

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW65A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST.• CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-HuntB-1024	< 0.4	< 0.8	< 0.8

Date of Analysis	11/29/2024 6:28	11/29/2024 6:28	11/29/2024 6:28

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 17:27 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75816

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-HuntB-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FAP-1024	4.6 ± 1.1	< 3.6	4.6 ± 1.1

Date of Analysis	11/30/2024 15:33	11/30/2024 15:33	11/30/2024 15:33

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 11:48 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/30/2024	4.6 ± 1.1		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/30/2024	4.6 ± 1.1		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/30/2024	< 3.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75817

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FAP-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-EW01-1024	0.6 ± 0.2	< 0.8	0.6 ± 0.2

Date of Analysis	11/29/2024 10:29	11/29/2024 10:29	11/29/2024 10:29

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 12:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75818

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-EW01-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-EW02-1024	0.5 ± 0.2	< 0.8	0.5 ± 0.2

Date of Analysis	11/29/2024 14:31	11/29/2024 14:31	11/29/2024 14:31

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 12:42 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75819

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-EW02-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-EW03-1024	0.7 ± 0.2	< 0.8	0.7 ± 0.2
Date of Analysis	11/29/2024 18:33	11/29/2024 18:33	11/29/2024 18:33

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 13:17 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75820

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-EW03-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-GSX1R-1024	0.4 ± 0.2	< 0.8	0.4 ± 0.2
Date of Analysis	11/29/2024 22:35	11/29/2024 22:35	11/29/2024 22:35

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 13:52 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/29/2024	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/29/2024	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/29/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

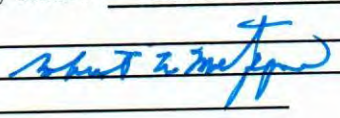
Specimen Number: RSE75821

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-GSX1R-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-EW04-1024	1.5 ± 0.2	1.4 ± 0.4	2.9 ± 0.4

Date of Analysis	11/30/2024 2:37	11/30/2024 2:37	11/30/2024 2:37

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 14:12 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000			
EPA 00-02		3 pCi/L	Gross Alpha	4002			
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/30/2024	2.9 ± 0.4	
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/30/2024	1.5 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/30/2024	1.4 ± 0.4	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75822

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-EW04-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information

Name:	Cameron Corley/505-860-3619 Pam Norris/505-598-8781
Company	Arizona Public Service
Address	~~PO Box 355, MS 4915~~ ~~Fruitland, NM 87416~~
Phone	
Site	APS ~~Four Corners Power Plant~~ Cholla Power Plant

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225
Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-MW4D-1024	11-11-24	1502							X	X	X					75810	
~~CH-CCR-MW5A-1024~~		~~1637~~							X	X	X						BH
CH-CCR-W30S-1024		1722							X	X	X					75811	
CH-CCR-MW79A-1024		1810							X	X	X					75812	
CH-CCR-MW67A-1024	11-12-24	1237							X	X	X					75813	
CH-CCR-MW6A-1024		1513							X	X	X					75814	
CH-CCR-MW65A-1024		1640							X	X	X					75815	
CH-CCR-HuntB-1024		1727							X	X	X					75816	
CH-CCR-FAP-1024	11-13-24	1148							X	X	X					75817	
CH-CCR-EW01-1024		1220							X	X	X					75818	

Sample Receipt

Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO#: ~~10062094~~
300592346

Instructions/Comments
Method HPGe

Relinquished By: Brad Hartman	Company: WSP	Date/time: 1604	Received By: Pat Flanney		Company: RSE	Date/time: 11-18-24 16:04
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:

11-18-24

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Client Information

Name:	Cameron Corley/505-860-3619 Pam Norris/505-598-8781
Company	Arizona Public Service
Address	~~PO Box 355, MS 4915~~ ~~Fruitland, NM 87416~~
Phone	
Site	APS ~~Four Corners Power Plant~~ Cholla Power Plant

Radiation Safety Engineering, Inc.

3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-EW02-1024	11-13-24	1242							X	X	X						75819
CH-CCR-EW03-1024		1317							X	X	X						75820
CH-CCR-GSX1R-1024		1352							X	X	X						75821
CH-CCR-EW04-1024	↓	1412							X	X	X						75822

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:

PO#: ~~100622094~~

3005923346

Instructions/Comments

Method HPGe

Relinquished By: Brad Hartman	Company: USP	Date/time: 1604	Received By: Pat Flannery		Company: RSE	Date/time: 11-18-24 16:04
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:

11-18-24

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 17, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W317-1024	< 0.4	1.4 ± 0.4	1.4 ± 0.4
Date of Analysis	1/15/2024 17:21	1/15/2024 17:21	1/15/2024 17:21

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 17, 2024 (Sample Date) 15:54 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	1/15/2024	1.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	1/15/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	1/15/2024	1.4 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75700

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W317-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 17, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD04-1024	1.0 ± 0.2	< 0.8	1.0 ± 0.2

Date of Analysis	11/15/2024 21:23	11/15/2024 21:23	11/15/2024 21:23

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 17, 2024 (Sample Date) 16:55 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75701

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD04-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD05-1024	0.9 ± 0.2	1.0 ± 0.4	1.9 ± 0.4

Date of Analysis	11/16/2024	11/16/2024	11/16/2024
	1:25	1:25	1:25

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 16:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	1.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	1.0 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75702

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD05-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

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Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 22, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-FD06-1024	0.9 ± 0.2	1.1 ± 0.4	2.0 ± 0.4

Date of Analysis	11/16/2024 5:27	11/16/2024 5:27	11/16/2024 5:27

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 22, 2024 (Sample Date) 16:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	2.0 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	1.1 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75703

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-FD06-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M63A-1024	0.5 ± 0.2	< 0.8	0.5 ± 0.2

Date of Analysis	11/16/2024	11/16/2024	11/16/2024
	9:29	9:29	9:29

Robert L. Metzger, Ph.D., C.H.P. — 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 10:53 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75704

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M63A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 22, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M55A-1024	0.4 ± 0.2	2.1 ± 0.4	2.5 ± 0.4

Date of Analysis	11/16/2024	11/16/2024	11/16/2024
	13:31	13:31	13:31

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 22, 2024 (Sample Date) 12:09 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	2.5 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	2.1 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75705

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M55A-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 22, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W308-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/16/2024 17:33	11/16/2024 17:33	11/16/2024 17:33

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 22, 2024 (Sample Date) 15:00 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75706

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W308-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 22, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W307R-1024	< 0.4	< 0.8	< 0.8

Date of Analysis	11/16/2024 21:34	11/16/2024 21:34	11/16/2024 21:34

Robert L. Metzger, Ph.D., C.H.P. — 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 22, 2024 (Sample Date) 16:39 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/16/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/16/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/16/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

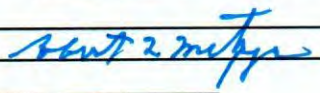
Specimen Number: RSE75707

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W307R-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W304-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/17/2024 1:36	11/17/2024 1:36	11/17/2024 1:36

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 11:09 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75708

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W304-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W302-1024	0.6 ± 0.2	< 0.8	0.6 ± 0.2

Date of Analysis	11/17/2024 5:38	11/17/2024 5:38	11/17/2024 5:38

Robert L. Metzger, Ph.D., C.H.P. — 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 13:13 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75709

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W302-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW78A-1024	0.4 ± 0.2	1.3 ± 0.4	1.7 ± 0.4

Date of Analysis	11/17/2024	11/17/2024	11/17/2024
	9:40	9:40	9:40

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 15:41 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	1.7 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	1.3 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

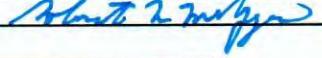
Specimen Number: RSE75710

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW78A-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W301-1024	< 0.4	< 0.8	< 0.8

Date of Analysis	11/17/2024 13:42	11/17/2024 13:42	11/17/2024 13:42

Robert L. Metzger, Ph.D., C.H.P. — 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 10:45 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75711

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W301-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W303-1024	< 0.4	< 0.8	< 0.8
Date of Analysis	11/17/2024 17:44	11/17/2024 17:44	11/17/2024 17:44

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 13:10 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75712

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W303-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M53A-1024	0.7 ± 0.2	< 0.8	0.7 ± 0.2

Date of Analysis	11/17/2024 21:46	11/17/2024 21:46	11/17/2024 21:46

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 15:30 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/17/2024	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/17/2024	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/17/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75713

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M53A-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W306-1024	0.8 ± 0.2	< 0.8	0.8 ± 0.2

Date of Analysis	11/18/2024 1:48	11/18/2024 1:48	11/18/2024 1:48

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 17:04 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/18/2024	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/18/2024	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/18/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75714

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W306-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 25, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW69A-1024	0.5 ± 0.2	< 0.8	0.5 ± 0.2

Date of Analysis	11/18/2024	11/18/2024	11/18/2024
	5:50	5:50	5:50

Robert L. Metzger, Ph.D., C.H.P. — 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 25, 2024 (Sample Date) 10:20 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/18/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/18/2024	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/18/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75715

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW69A-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 28, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M52A-1024	< 0.4	< 0.8	< 0.8

Date of Analysis	11/18/2024	11/18/2024	11/18/2024
	9:52	9:52	9:52

Robert L. Metzger, Ph.D., C.H.P. — 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 28, 2024 (Sample Date) 15:02 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/18/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/18/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/18/2024	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75716

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M52A-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 28, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW70M-1024	< 0.4	< 0.8	< 0.8

Date of Analysis	11/18/2024 13:54	11/18/2024 13:54	11/18/2024 13:54

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 28, 2024 (Sample Date) 16:31 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/18/2024	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/18/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/18/2024	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75717

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW70M-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 29, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-BudHunt-1024	< 0.5	< 0.7	< 0.7

Date of Analysis	11/14/2024 7:07	11/14/2024 7:07	11/14/2024 7:07

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 29, 2024 (Sample Date) 10:17 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75718

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-BudHunt-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 29, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW72M-1024	6.3 ± 0.4	6.5 ± 0.5	12.8 ± 0.6

Date of Analysis	11/14/2024	11/14/2024	11/14/2024
	11:07	11:07	11:07

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 29, 2024 (Sample Date) 11:42 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	12.8 ± 0.6		X
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	6.3 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	6.5 ± 0.5		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75719

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW72M-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 29, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW71A-1024	< 0.5	< 0.7	< 0.7
Date of Analysis	11/14/2024 15:08	11/14/2024 15:08	11/14/2024 15:08

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 29, 2024 (Sample Date) 15:02 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75720

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW71A-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

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Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 29, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW73A-1024	0.6 ± 0.2	< 0.7	0.6 ± 0.2

Date of Analysis	11/14/2024 19:09	11/14/2024 19:09	11/14/2024 19:09

11/19/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 29, 2024 (Sample Date) 16:12 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75721

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW73A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 30, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W314-1024	< 0.5	< 0.7	< 0.7

Date of Analysis	11/14/2024 23:09	11/14/2024 23:09	11/14/2024 23:09

Robert L. Metzger, Ph.D., C.H.P. — 11/19/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 30, 2024 (Sample Date) 10:03 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/14/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/14/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/14/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75722

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W314-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 30, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW74M-1024	0.6 ± 0.2	< 0.7	0.6 ± 0.2

Date of Analysis	11/15/2024	11/15/2024	11/15/2024
	3:10	3:10	3:10

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 30, 2024 (Sample Date) 12:27 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75723

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW74M-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 30, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M64A-1024	< 0.5	0.7 ± 0.3	0.7 ± 0.3

Date of Analysis	11/15/2024	11/15/2024	11/15/2024
	7:11	7:11	7:11

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 30, 2024 (Sample Date) 15:48 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	0.7 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	0.7 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75724

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M64A-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 30, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-MW77A-1024	< 0.5	< 0.7	< 0.7

Date of Analysis	11/15/2024 11:11	11/15/2024 11:11	11/15/2024 11:11

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 30, 2024 (Sample Date) 17:05 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75725

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-MW77A-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 31, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M43A-1024	< 0.4	1.6 ± 0.3	1.6 ± 0.3

Date of Analysis	11/15/2024 15:12	11/15/2024 15:12	11/15/2024 15:12

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 31, 2024 (Sample Date) 10:23 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	1.6 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	1.6 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75726

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M43A-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 31, 2024
Sample Received: November 01, 2024
Analysis Completed: November 19, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-W126R-1024	0.9 ± 0.2	< 0.7	0.9 ± 0.2

Date of Analysis	11/15/2024 19:13	11/15/2024 19:13	11/15/2024 19:13

Robert L. Metzger, Ph.D., C.H.P. 11/19/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

October 31, 2024 (Sample Date) 14:03 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/15/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/15/2024	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/15/2024	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

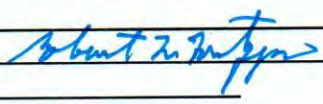
Specimen Number: RSE75727

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-W126R-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information	
Name:	**Cody Miller/480-209-6529**
Company	**Arizona Public Service**
Address	**4801 Cholla Lake Rd, Joseph City, AZ 86032**
Phone	**928-587-0319**
Site	**APS Cholla Power Plant (BAP)**

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-W317-1024	10-17-24	1554	GW						X	X	X						75700
CH-CCR-FD04-1024	10-17-24	1655	GW						X	X	X						75701
CH-CCR-FD05-1024	10-21-24	1620	GW						X	X	X						75702
CH-CCR-FD06-1024	10-22-24	1620	GW						X	X	X						75703
CH-CCR-M63A-1024	10-21-24	1053	GW						X	X	X						75704
CH-CCR-M55A-1024	10-22-24	1209	GW						X	X	X						75705
CH-CCR-W308-1024	10-22-24	1500	GW						X	X	X						75706
CH-CCR-W307R-1024	10-22-24	1639	GW						X	X	X						75707
CH-CCR-W304-1024	10-23-24	1109	GW						X	X	X						75708
CH-CCR-W302-1024	10-23-24	1313	GW						X	X	X						75709

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300592346

Instructions/Comments
Method HPGe

Relinguished By: [illegible]	Company: WSP	Date/time: 1612 1 Nov 24	Received By: [illegible]		Company: RSE	Date/time: 11.1.24	4:12
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:	
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:	

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Client Information	
Name:	**Cody Miller/480-209-6529**
Company	**Arizona Public Service**
Address	**4801 Cholla Lake Rd, Joseph City, AZ 86032**
Phone	**928-587-0319**
Site	**APS Cholla Power Plant (BAP)**

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-MW76A-1024	10-23-24	1541	GW						X	X	X						75710
CH-CCR-W301-1024	10-24-24	1045	GW						X	X	X						75711
CH-CCR-W303-1024	10-24-24	1310	GW						X	X	X						75712
CH-CCR-MW53A-1024	10-24-24	1530	GW						X	X	X						75713
CH-CCR-W306-1024	10-24-24	1704	GW						X	X	X						75714
CH-CCR-MW69A-1024	10-25-24	1020	GW						X	X	X						75715
CH-CCR-MW52A-1024	10-28-24	1502	GW						X	X	X						75716
CH-CCR-MW70M-1024	10-28-24	1631	GW						X	X	X						75717
CH-CCR-FieldHum-1024	10-29-24	1017	GW						X	X	X						75718
CH-CCR-MW72M-1024	10-29-24	1142	GW						X	X	X						75719

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300592346

Instructions/Comments
Method HPGe

Relinguished By: BZ/LE	Company: WSP	Date/time: 1612 1Nov24	Received By: Pat Flannery		Company: RSE	Date/time: 11-1-24	4:12
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:	
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time:	

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Client Information	
Name:	**Cody Miller/480-209-6529**
Company	**Arizona Public Service**
Address	**4801 Cholla Lake Rd, Joseph City, AZ 86032**
Phone	**928-587-0319**
Site	**APS Cholla Power Plant (BAP)**

Radiation Safety Engineering, Inc.
3245 North Washington Street, Chandler, Arizona 85225

Analysis Request

Sample ID & Location (DWR#)	Collection Date	Collection Time	Media (DW* WW* Other)	Drinking Water Compliance	Gross Alpha	Gross Beta	Total Uranium	Isotopic Uranium	Ra-226	Ra-228	Ra-226 + Ra-228, Combined	H-3	Gamma Spectroscopy	Sr-89/Sr-90	Radon in Water	Radon in Air	
CH-CCR-MW71A-1024	10-29-24	1502	GW						X	X	X						75720
CH-CCR-MW73A-1024	10-29-24	1612	GW						X	X	X						75721
CH-CCR-W314-1024	10-30-24	1003	GW						X	X	X						75722
CH-CCR-MW74M-1024	10-30-24	1227	GW						X	X	X						75723
CH-CCR-M64A-1024	10-30-24	1548	GW						X	X	X						75724
CH-CCR-MW77A-1024	10-30-24	1705	GW						X	X	X						75725
CH-CCR-M43A-1024	10-31-24	1023	GW						X	X	X						75726
CH-CCR-W26R-1024	10-31-24	1403	GW						X	X	X						75727
			GW						X	X	X						
			GW						X	X	X						

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO #: 300592346

Instructions/Comments
Method HPGe

Relinquished By:	Company: WSP	Date/time: 1612	Received By:		Company: RSE	Date/time: 11/1/24	4:12
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time:	

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

u/client/forms/cofc.frm

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 11, 2024
Sample Received: November 18, 2024
Analysis Completed: December 05, 2024

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
CH-CCR-M44D-1024	2.7 ± 0.3	0.8 ± 0.4	3.5 ± 0.5

Date of Analysis	11/28/2024 6:16	11/28/2024 6:16	11/28/2024 6:16

12/5/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 _____ PWS Name: _____

November 11, 2024 (Sample Date) 15:02 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

Compliance Sample Type:

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
Calculated	15 pCi/L		Adjusted Gross Alpha	4000				
EPA 00-02		3 pCi/L	Gross Alpha	4002				
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	11/28/2024	3.5 ± 0.5		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/28/2024	2.7 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/28/2024	0.8 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75810

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: CH-CCR-M44D-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

ANALYTICAL REPORT

November 27, 2024

Revised Report

WSP (Formely Wood E&I)-Phoenix, AZ

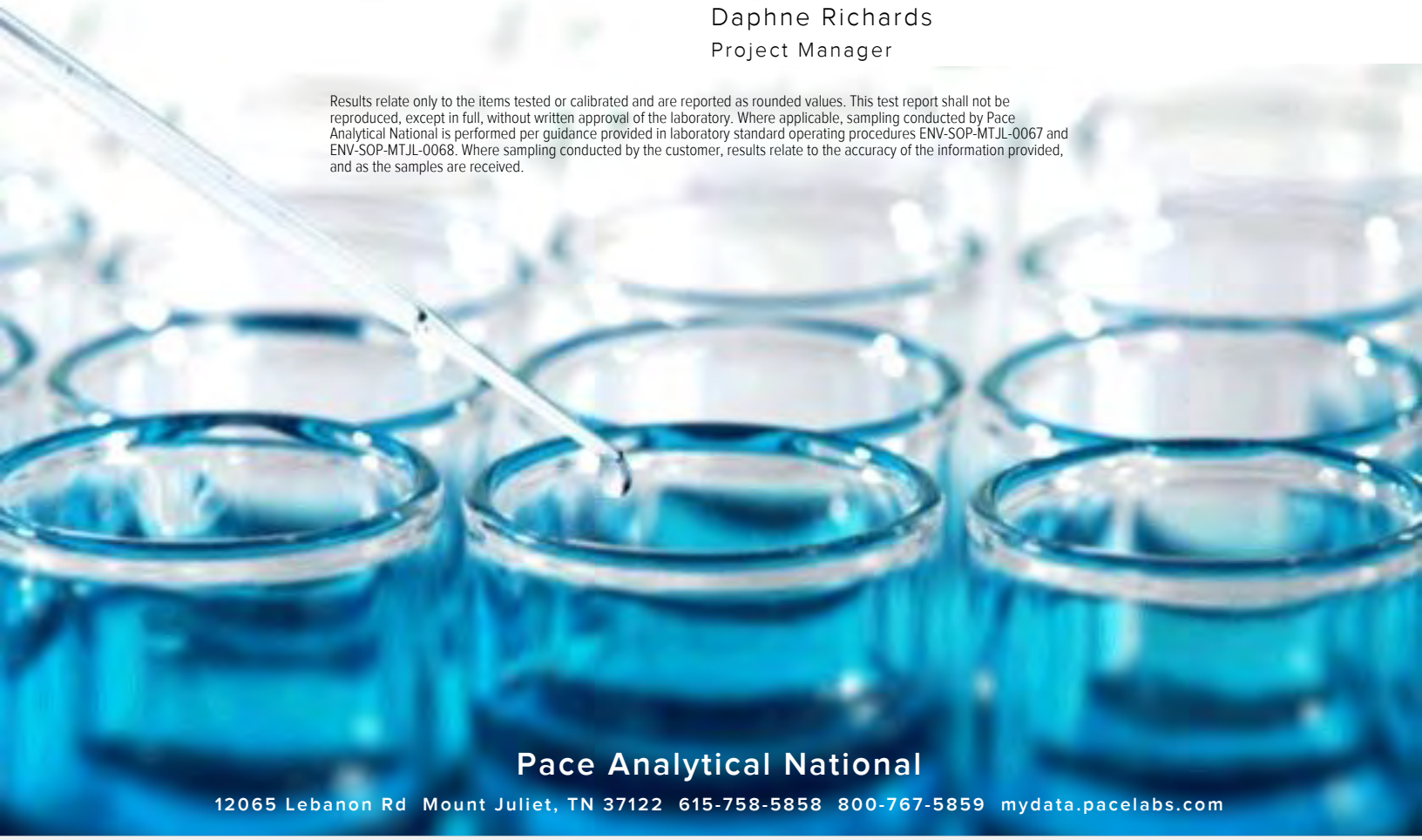
Sample Delivery Group:	L1793219
Samples Received:	10/26/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-CCR-M63A-1024 L1793219-01 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 10:53 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 13:46	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	1	11/01/24 20:59	11/01/24 20:59	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	10	11/01/24 22:09	11/01/24 22:09	ZSA	Mt. Juliet, TN
Mercury by Method 7470A	WG2391327	1	10/30/24 15:13	10/30/24 21:28	AKB	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-FD01-1024 L1793219-02 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 12:40 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	1	11/01/24 22:44	11/01/24 22:44	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	10	11/01/24 23:01	11/01/24 23:01	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M59-1024 L1793219-03 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 13:48 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	1	11/01/24 23:19	11/01/24 23:19	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	10	11/01/24 23:36	11/01/24 23:36	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M61-1024 L1793219-04 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 15:13 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	20	11/02/24 00:11	11/02/24 00:11	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390371	5	11/01/24 23:54	11/01/24 23:54	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CH-CCR-FD02-1024 L1793219-05 GW

Collected by: Brad Hartman | Collected date/time: 10/21/24 13:37 | Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390373	1	10/31/24 12:10	10/31/24 12:10	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390373	10	10/31/24 12:23	10/31/24 12:23	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY

CH-CCR-FD05-1024 L1793219-06 GW

Collected by: Brad Hartman
Collected date/time: 10/21/24 16:20
Received date/time: 10/26/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2390937	1	10/28/24 14:14	10/28/24 16:30	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2390886	1	10/29/24 07:25	10/29/24 07:25	KA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390373	1	10/31/24 13:14	10/31/24 13:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2390373	10	10/31/24 13:27	10/31/24 13:27	ZSA	Mt. Juliet, TN
Subcontracted Analyses	WG2393148	1	11/12/24 00:00	11/12/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Report Revision History

Level II Report - Version 1: 11/21/24 16:30

Project Narrative

Report reissue
L1793219 -01, -02, -03, -04, -05, -06 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	1740000		50000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.61	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-01 WG2390886: 7.61 at 19.6C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	283000		5470	10000	10	11/01/2024 22:09	WG2390371
Fluoride	225	R8	76.1	150	1	11/01/2024 20:59	WG2390371
Sulfate	667000		6370	50000	10	11/01/2024 22:09	WG2390371

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.0700	0.200	1	10/30/2024 21:28	WG2391327

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	2790000		100000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.71	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-02 WG2390886: 7.71 at 19.4C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1310000		5470	10000	10	11/01/2024 23:01	WG2390371
Fluoride	1510		76.1	150	1	11/01/2024 22:44	WG2390371
Sulfate	351000		6370	50000	10	11/01/2024 23:01	WG2390371

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	2810000		100000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.71	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-03 WG2390886: 7.71 at 19.3C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1330000		5470	10000	10	11/01/2024 23:36	WG2390371
Fluoride	1460		76.1	150	1	11/01/2024 23:19	WG2390371
Sulfate	358000		6370	50000	10	11/01/2024 23:36	WG2390371

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2890000		100000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.70	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-04 WG2390886: 7.7 at 19.4C

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	1340000		10900	20000	20	11/02/2024 00:11	WG2390371
Fluoride	1550		380	750	5	11/01/2024 23:54	WG2390371
Sulfate	364000		3180	25000	5	11/01/2024 23:54	WG2390371

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	2890000		100000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.71	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-05 WG2390886: 7.71 at 19.2C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1260000		5470	10000	10	10/31/2024 12:23	WG2390373
Fluoride	1270		76.1	150	1	10/31/2024 12:10	WG2390373
Sulfate	338000		6370	50000	10	10/31/2024 12:23	WG2390373

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	1740000		50000	1	10/28/2024 16:30	WG2390937

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.68	H3	1	10/29/2024 07:25	WG2390886

Sample Narrative:

L1793219-06 WG2390886: 7.68 at 19.2C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	281000		5470	10000	10	10/31/2024 13:27	WG2390373
Fluoride	191		76.1	150	1	10/31/2024 13:14	WG2390373
Sulfate	699000		6370	50000	10	10/31/2024 13:27	WG2390373

Method Blank (MB)

(MB) R4139908-1 10/28/24 16:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Dissolved Solids	U		10000	10000

L1792170-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1792170-08 10/28/24 16:30 • (DUP) R4139908-3 10/28/24 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	10700000	10800000	1	0.745		10

L1793271-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793271-01 10/28/24 16:30 • (DUP) R4139908-4 10/28/24 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	1940000	2080000	1	6.72		10

Laboratory Control Sample (LCS)

(LCS) R4139908-2 10/28/24 16:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8750000	99.4	85.0-115	

L1793219-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-02 10/29/24 07:25 • (DUP) R4138794-2 10/29/24 07:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.71	7.71	1	0.000		1

Sample Narrative:

OS: 7.71 at 19.4C

DUP: 7.71 at 19.4C

Laboratory Control Sample (LCS)

(LCS) R4138794-1 10/29/24 07:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:

LCS: 9.99 at 19.7C

Method Blank (MB)

(MB) R4141416-1 11/01/24 12:17

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1793200-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1793200-04 11/01/24 14:02 • (DUP) R4141416-3 11/01/24 14:19

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10900	11100	1	1.19		15
Fluoride	759	782	1	3.08		15
Sulfate	80700	81700	1	1.18		15

L1793219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-01 11/01/24 20:59 • (DUP) R4141416-6 11/01/24 21:17

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	225	431	1	62.8	R8	15

L1793219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-01 11/01/24 22:09 • (DUP) R4141416-9 11/01/24 22:26

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	283000	290000	10	2.59		15
Sulfate	667000	680000	10	1.94		15

Laboratory Control Sample (LCS)

(LCS) R4141416-2 11/01/24 12:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39600	99.1	80.0-120	
Fluoride	8000	8260	103	80.0-120	
Sulfate	40000	40400	101	80.0-120	

L1793200-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793200-04 11/01/24 14:02 • (MS) R4141416-4 11/01/24 14:36 • (MSD) R4141416-5 11/01/24 14:54

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	10900	49300	49100	95.8	95.5	1	80.0-120			0.258	15
Fluoride	8000	759	8920	8920	102	102	1	80.0-120			0.00224	15
Sulfate	40000	80700	106000	106000	63.2	63.7	1	80.0-120	M2	M2	0.172	15

L1793219-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793219-01 11/01/24 20:59 • (MS) R4141416-7 11/01/24 21:34 • (MSD) R4141416-8 11/01/24 21:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	8000	225	8760	8710	107	106	1	80.0-120			0.521	15

Method Blank (MB)

(MB) R4141353-1 10/31/24 11:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1793219-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-05 10/31/24 12:10 • (DUP) R4141353-3 10/31/24 12:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1270	1270	1	0.520		15

L1793219-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-05 10/31/24 12:23 • (DUP) R4141353-4 10/31/24 12:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1260000	1310000	10	3.86		15
Sulfate	338000	351000	10	3.58		15

L1793232-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1793232-06 10/31/24 18:08 • (DUP) R4141353-6 10/31/24 18:21

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1070	726	1	38.3	E4 R8	15
Fluoride	U	80.6	1	200	E4 R8	15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R4141353-2 10/31/24 11:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39400	98.6	80.0-120	
Fluoride	8000	8110	101	80.0-120	
Sulfate	40000	39900	99.8	80.0-120	

L1793219-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1793219-05 10/31/24 12:10 • (MS) R4141353-5 10/31/24 13:01

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	1300000	1080000	0.000	1	80.0-120	E1 M3
Fluoride	8000	1270	9410	102	1	80.0-120	
Sulfate	40000	363000	324000	0.000	1	80.0-120	E1 M3

L1793232-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793232-06 10/31/24 18:08 • (MS) R4141353-7 10/31/24 18:34 • (MSD) R4141353-8 10/31/24 18:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	1070	39900	39800	97.0	96.9	1	80.0-120			0.125	15
Fluoride	8000	U	8200	8120	102	102	1	80.0-120			0.888	15
Sulfate	40000	U	40400	40200	101	100	1	80.0-120			0.734	15

Method Blank (MB)

(MB) R4139947-1 10/30/24 21:23

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Mercury	U		0.0700	0.200

Laboratory Control Sample (LCS)

(LCS) R4139947-2 10/30/24 21:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Mercury	3.00	2.85	95.0	80.0-120	

L1793219-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793219-01 10/30/24 21:28 • (MS) R4139947-4 10/30/24 21:33 • (MSD) R4139947-5 10/30/24 21:36

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury	3.00	U	2.88	2.90	96.1	96.6	1	75.0-125			0.589	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 Diss Metals FF 250mlHDPE-HNO3	200.7 Total Metals 250mlHDPE-HNO3	200.8 Diss Metals FF 250mlHDPE-HNO3	200.8 Total Metals 250mlHDPE-HNO3	ALKCA, ~~ALKOH~~ 125mlHDPE-NoPres	Chloride 250mlHDPE-NoPres	DOC 250mlAmb-No Pres	Fluoride 250mlHDPE-NoPres	Hg 250mlHDPE-HNO3	NH3 250mlHDPENaThioH2SO4	Remarks	Sample # (lab only)
CH-CCR-MW3A-1024		GW		10-24-24	1053	4		X				X		X	X		MS/MSD	-01
CH-CCR-FD01-1024		GW			1240	3		X				X		X	X			-02
CH-CCR-MW9-1024		GW			1348	3		X				X		X				-03
CH-CCR-MW1-1024		GW			1513	3		X				X		X				-04
CH-CCR-FD02-1024		GW			1337	3		X				X		X				-05
CH-CCR-FD05-1024		GW			1620	3		X				X		X				-06
		GW																
		GW																
		GW																
		GW																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn MW9, MW1, FD02, FD05: 200.7: Total B, Total Ca
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

MW3A + FD01 200.7: Total B, Total Ca, Total Be, Total Li K

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4072 9194 9104

Relinquished by : (Signature) — Date: 10-25-24 — Time: 1700 — Received by: (Signature)

Relinquished by : (Signature) — Date: 10-25-24 — Time: 1900 — Received by: (Signature) FedEx

Relinquished by : (Signature) PNPAR — Date: — Time: — Received for lab by: (Signature) (14) — Date: 10/26/24 — Time: 930

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Temp: TLM °C 22+0.3=25 — Bottles Received: 28

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Chain of Custody Page 1 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1793219
H167

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com;natalie.chrismanlaz**

Project Description: **APS-Cholla**

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project # **AMECTAZ-APSCHOLLA**

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. # **P104414US024**

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Sulfate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres	Remarks	Sample # (lab only)
CH-CCR-MW3A-1024		WW		10-21-24	1053	12		X	X		X		-0701
CH-CCR-FD01-1024		WW			1240	4		X	X		X		-0802
CH-CCR-MW9-1024		WW			1348	3		X	X		X		-03
CH-CCR-MW1-1024		WW			1513	3		X	X		X		-04
CH-CCR-FD02-1024		WW			1337	3		X	X		X		-05
CH-CCR-FD05-1024		WW		↓	1620	3		X	X		X		-06
		WW											
		WW											
		WW											
		WW											

AW 10/26

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1793219

Table #

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-25-24	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-25-24	1800	Fedex
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
PNAC			(14)

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Temp: 2.1°C Bottles Received: 28
2,2+0,3=2,5

Date: 10/26/24 Time: 930

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 21, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on November 20, 2024, to report results for Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se, and Tl by method 200.8 for samples 10714203001 and 107142003002.

This report was futher revised on November 21, 2024, to report to the Method Dectection Limit (MDL).

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Minneapolis, MN 55414
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CERTIFICATIONS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10714203001	**CH-CCR-M63A-1024**	Water	10/21/24 10:53	11/01/24 08:50
10714203002	**CH-CCR-FD01-1024**	Water	10/21/24 12:40	11/01/24 08:50
10714203003	**CH-CCR-M59-1024**	Water	10/21/24 13:48	11/01/24 08:50
10714203004	**CH-CCR-M61-1024**	Water	10/21/24 15:13	11/01/24 08:50
10714203005	**CH-CCR-FD02-1024**	Water	10/21/24 13:37	11/01/24 08:50
10714203006	**CH-CCR-FD05-1024**	Water	10/21/24 16:20	11/01/24 08:50

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(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10714203001	**CH-CCR-M63A-1024**	EPA 200.7	SMB	4	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10714203002	**CH-CCR-FD01-1024**	EPA 200.7	SMB	4	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10714203003	**CH-CCR-M59-1024**	EPA 200.7	SMB	2	PASI-M
10714203004	**CH-CCR-M61-1024**	EPA 200.7	SMB	2	PASI-M
10714203005	**CH-CCR-FD02-1024**	EPA 200.7	SMB	2	PASI-M
10714203006	**CH-CCR-FD05-1024**	EPA 200.7	SMB	2	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-M63A-1024 **Lab ID: 10714203001** Collected: 10/21/24 10:53 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/04/24 13:20	11/12/24 11:48	7440-41-7	
Boron	**215**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:48	7440-42-8	
Calcium	**151000**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:48	7440-70-2	
Potassium	**6470**	ug/L	2500	108	1	11/04/24 13:20	11/12/24 11:48	7440-09-7	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 09:57	11/12/24 12:38	7440-36-0	D3
Arsenic	**2.7**	ug/L	2.5	0.61	5	11/11/24 09:57	11/12/24 12:38	7440-38-2	
Barium	**27.1**	ug/L	1.5	0.35	5	11/11/24 09:57	11/12/24 12:38	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 09:57	11/12/24 12:38	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 09:57	11/12/24 12:38	7440-47-3	D3
Cobalt	**1.4J**	ug/L	2.5	0.48	5	11/11/24 09:57	11/12/24 12:38	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 09:57	11/12/24 12:38	7439-92-1	D3
Lithium	**81.1**	ug/L	2.5	0.92	5	11/11/24 09:57	11/12/24 12:38	7439-93-2	
Molybdenum	**3.4**	ug/L	2.5	0.63	5	11/11/24 09:57	11/12/24 12:38	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 09:57	11/12/24 12:38	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 09:57	11/12/24 12:38	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/06/24 13:24	11/08/24 10:49	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-FD01-1024 **Lab ID: 10714203002** Collected: 10/21/24 12:40 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/04/24 13:20	11/12/24 11:53	7440-41-7	
Boron	**498**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:53	7440-42-8	
Calcium	**77300**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:53	7440-70-2	
Potassium	**5160**	ug/L	2500	108	1	11/04/24 13:20	11/12/24 11:53	7440-09-7	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.087**	ug/L	0.50	0.087	1	11/11/24 09:57	11/12/24 13:20	7440-36-0	
Arsenic	**8.8**	ug/L	0.50	0.12	1	11/11/24 09:57	11/12/24 13:20	7440-38-2	
Barium	**22.6**	ug/L	0.30	0.070	1	11/11/24 09:57	11/12/24 13:20	7440-39-3	
Cadmium	**<0.030**	ug/L	0.080	0.030	1	11/11/24 09:57	11/12/24 13:20	7440-43-9	
Chromium	**<0.54**	ug/L	2.0	0.54	1	11/11/24 09:57	11/12/24 13:20	7440-47-3	
Cobalt	**0.21J**	ug/L	0.50	0.095	1	11/11/24 09:57	11/12/24 13:20	7440-48-4	
Lead	**<0.18**	ug/L	0.50	0.18	1	11/11/24 09:57	11/12/24 13:20	7439-92-1	
Lithium	**37.5**	ug/L	0.50	0.18	1	11/11/24 09:57	11/12/24 13:20	7439-93-2	
Molybdenum	**5.3**	ug/L	0.50	0.13	1	11/11/24 09:57	11/12/24 13:20	7439-98-7	
Selenium	**<0.074**	ug/L	0.50	0.074	1	11/11/24 09:57	11/12/24 13:20	7782-49-2	
Thallium	**<0.026**	ug/L	0.10	0.026	1	11/11/24 09:57	11/12/24 13:20	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/06/24 13:24	11/08/24 10:54	7439-97-6	

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(612)607-1700

ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-M59-1024 **Lab ID: 10714203003** Collected: 10/21/24 13:48 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**481**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:55	7440-42-8	
Calcium	**75600**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:55	7440-70-2	

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ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-M61-1024 **Lab ID: 10714203004** Collected: 10/21/24 15:13 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**481**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:56	7440-42-8	
Calcium	**78500**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:56	7440-70-2	

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ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-FD02-1024 **Lab ID: 10714203005** Collected: 10/21/24 13:37 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**471**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 11:58	7440-42-8	
Calcium	**76600**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 11:58	7440-70-2	

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(612)607-1700

ANALYTICAL RESULTS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Sample: CH-CCR-FD05-1024 **Lab ID: 10714203006** Collected: 10/21/24 16:20 Received: 11/01/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**220**	ug/L	150	16.0	1	11/04/24 13:20	11/12/24 12:00	7440-42-8	
Calcium	**154000**	ug/L	500	31.8	1	11/04/24 13:20	11/12/24 12:00	7440-70-2	

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

QC Batch: 978238
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714203001, 10714203002

METHOD BLANK: 5112222 Matrix: Water
Associated Lab Samples: 10714203001, 10714203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/08/24 10:46	

LABORATORY CONTROL SAMPLE: 5112223

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112224 5112225

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	5.2	5.1	104	102	70-130	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112226 5112227

Parameter	Units	10714206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	5.0	5.1	99	102	70-130	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

QC Batch: 977510
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714203001, 10714203002, 10714203003, 10714203004, 10714203005, 10714203006

METHOD BLANK: 5109199 Matrix: Water
Associated Lab Samples: 10714203001, 10714203002, 10714203003, 10714203004, 10714203005, 10714203006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/12/24 11:41	
Boron	ug/L	<16.0	150	16.0	11/12/24 11:41	
Calcium	ug/L	<31.8	500	31.8	11/12/24 11:41	
Potassium	ug/L	<108	2500	108	11/12/24 11:41	

LABORATORY CONTROL SAMPLE: 5109200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1010	101	85-115	
Boron	ug/L	1000	1020	102	85-115	
Calcium	ug/L	20000	19400	97	85-115	
Potassium	ug/L	20000	19300	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109201 5109202

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1090	1060	109	106	70-130	3	20	
Boron	ug/L	215	1000	1000	1330	1300	111	109	70-130	2	20	
Calcium	ug/L	151000	20000	20000	167000	167000	79	79	70-130	0	20	
Potassium	ug/L	6470	20000	20000	29200	28700	113	111	70-130	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109203 5109204

Parameter	Units	10714206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1090	1050	109	105	70-130	4	20	
Boron	ug/L	199	1000	1000	1390	1320	119	112	70-130	5	20	
Calcium	ug/L	322000	20000	20000	339000	339000	84	86	70-130	0	20	
Potassium	ug/L	9320	20000	20000	33600	32700	121	117	70-130	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

QC Batch: 978930
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714203001, 10714203002

METHOD BLANK: 5115658 Matrix: Water
Associated Lab Samples: 10714203001, 10714203002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/12/24 12:12	
Arsenic	ug/L	0.15J	0.50	0.12	11/12/24 12:12	
Barium	ug/L	<0.070	0.30	0.070	11/12/24 12:12	
Cadmium	ug/L	<0.030	0.080	0.030	11/12/24 12:12	
Chromium	ug/L	<0.54	2.0	0.54	11/12/24 12:12	
Cobalt	ug/L	<0.095	0.50	0.095	11/12/24 12:12	
Lead	ug/L	<0.18	0.50	0.18	11/12/24 12:12	
Lithium	ug/L	<0.18	0.50	0.18	11/12/24 12:12	
Molybdenum	ug/L	<0.13	0.50	0.13	11/12/24 12:12	
Selenium	ug/L	<0.074	0.50	0.074	11/12/24 12:12	
Thallium	ug/L	<0.026	0.10	0.026	11/12/24 12:12	

LABORATORY CONTROL SAMPLE: 5115659

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	98.9	99	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	103	103	85-115	
Cadmium	ug/L	100	99.1	99	85-115	
Chromium	ug/L	100	108	108	85-115	
Cobalt	ug/L	100	111	111	85-115	
Lead	ug/L	100	106	106	85-115	
Lithium	ug/L	100	103	103	85-115	
Molybdenum	ug/L	100	98.6	99	85-115	
Selenium	ug/L	100	106	106	85-115	
Thallium	ug/L	100	102	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115660 5115661

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.44	100	100	98.0	100	98	100	70-130	2	20	
Arsenic	ug/L	2.7	100	100	108	109	106	106	70-130	0	20	
Barium	ug/L	27.1	100	100	127	128	99	101	70-130	1	20	
Cadmium	ug/L	<0.15	100	100	97.1	99.4	97	99	70-130	2	20	
Chromium	ug/L	<2.7	100	100	103	105	102	104	70-130	2	20	
Cobalt	ug/L	1.4J	100	100	107	108	106	107	70-130	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115660 5115661

Parameter	Units	10714203001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	<0.90	100	100	102	102	101	102	70-130	1	20	
Lithium	ug/L	81.1	100	100	183	185	101	104	70-130	1	20	
Molybdenum	ug/L	3.4	100	100	102	103	99	100	70-130	1	20	
Selenium	ug/L	<0.37	100	100	106	105	106	105	70-130	0	20	
Thallium	ug/L	<0.13	100	100	101	102	101	102	70-130	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115662 5115663

Parameter	Units	10714206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.44	100	100	98.1	97.0	98	97	70-130	1	20	
Arsenic	ug/L	4.4	100	100	109	108	105	103	70-130	1	20	
Barium	ug/L	32.4	100	100	134	132	102	100	70-130	1	20	
Cadmium	ug/L	<0.15	100	100	92.8	92.3	93	92	70-130	1	20	
Chromium	ug/L	<2.7	100	100	103	102	101	100	70-130	1	20	
Cobalt	ug/L	<0.48	100	100	103	102	103	102	70-130	1	20	
Lead	ug/L	<0.90	100	100	101	100	101	100	70-130	0	20	
Lithium	ug/L	52.1	100	100	152	151	100	98	70-130	1	20	
Molybdenum	ug/L	1.5J	100	100	98.5	98.3	97	97	70-130	0	20	
Selenium	ug/L	<0.37	100	100	99.6	99.5	99	99	70-130	0	20	
Thallium	ug/L	<0.13	100	100	100	99.9	100	100	70-130	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1793219 WG2393148-Revised Report
Pace Project No.: 10714203

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10714203001	**CH-CCR-M63A-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203002	**CH-CCR-FD01-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203005	**CH-CCR-FD02-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203003	**CH-CCR-M59-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203004	**CH-CCR-M61-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203006	**CH-CCR-FD05-1024**	EPA 200.7	977510	EPA 200.7	977832
10714203001	**CH-CCR-M63A-1024**	EPA 200.8	978930	EPA 200.8	979147
10714203002	**CH-CCR-FD01-1024**	EPA 200.8	978930	EPA 200.8	979147
10714203001	**CH-CCR-M63A-1024**	EPA 245.1	978238	EPA 245.1	978389
10714203002	**CH-CCR-FD01-1024**	EPA 245.1	978238	EPA 245.1	978389

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

WO#: 10714203

10714203

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. # P104414US024

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

terms.pdf

SDG # L1793219

H167

Acctnum: AMECTAZ
Template: T261974
Prelogin: P1107670
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 Diss Metals FF 250mlHDPE-HNO3	200.7 Total Metals 250mlHDPE-HNO3	200.8 Diss Metals FF 250mlHDPE-HNO3	200.8 Total Metals 250mlHDPE-HNO3	ALKCA, ~~ALKOH~~ ALK HCO3 125mlHDPE-NoPres	Chloride 250mlHDPE-NoPres	DOC 250mlAmb-No Pres	Fluoride 250mlHDPE-NoPres	Hg 250mlHDPE-HNO3	NH3 250mlHDPENaThioH2SO4	Remarks	Sample # (lab only)
CH-CCR-M63A-1024		GW		10-21-24	1053	~~4~~ 3		X				X		X	X		MS/MSD	-01
CH-CCR-FD01-1024		GW			1240	~~4~~ 3		X				X		X	X			-02
CH-CCR-M59-1024		GW			1348	3		X				X		X				-03
CH-CCR-M61-1024		GW			1513	3		X				X		X				-04
CH-CCR-FD02-1024		GW			1337	3		X				X		X				-05
CH-CCR-FD05-1024		GW			1620	~~3~~ 3		X				X		X				-06
		GW																
		GW																
		GW																
		GW																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co
M59, M61, FD02, FD05: 200.7: Total B, Total Ca
M63A + FD01 200.7: Total B, Total Ca, Total Be, Total Li: K

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 4072 9194 9104

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
[signature]	10-25-24	1700	[signature]	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 7.4 °C 2.2+0.3=2.5 Bottles Received: 28
[signature]	10-25-24	1700	FedEx	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/26/24 Time: 930
PNPAR			[signature] (14)	

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

[signature] 10/1/24 8:50

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com;natalie.chrismanlaz**

Project Description: **APS-Cholla**

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #: **AMECTAZ-APSCHOLLA**

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #: **P104414US024**

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Suffate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres	Remarks	Sample # (lab only)
CH-CCR-MW3A-1024		WW		10-21-24	1053	12		X	X		X		-070
CH-CCR-FD01-1024		WW			1240	4		X	X		X		-080
CH-CCR-MW9-1024		WW			1345	3		X	X		X		-03 AM 10/26
CH-CCR-MW1-1024		WW			1513	3		X	X		X		-04
CH-CCR-FD02-1024		WW			1337	3		X	X		X		-05
CH-CCR-FD05-1024		WW		↓	1620	3		X	X		X		-06
		WW											
		WW											
		WW											
		WW											

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1743219

Table #

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEx Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-25-24	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-25-24	1800	Fedex
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
PNAC			(14) 10/26/24 930

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp: 2.4 °C Bottles Received: 28

2,2+0,3=2,5

If preservation required by Login: Date/Time

Hold: Condition: NCF / (OK)

11/11/24 8:30

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTVL PROJECT #: **WO#: 10714203**

PM: TKL Due Date: 11/15/24

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 4041 0492 0891 ☐ See Exceptions form ENV-FRM-MIN4-0142

4041 0492 0880, 4041 0492 0870

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO Seals Intact: ☑ YES ☐ NO Biological Tissue Frozen: ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☑ None ☐ Other Temp Blank: ☑ YES ☐ NO Type of Ice: ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	Were All Container Temps taken: ☐ YES ☐ NO ☑ N/A
Correction Factor: +0.1 Cooler Temp Read w/Temp Blank: 1.5, 1.8, 1.8 °C Cooler Temp Corrected w/Temp Blank: 1.6, 1.9, 1.9 °C	Average Corrected Temp (no Temp Blank Only): _____ °C
NOTE: Temp should be above freezing to 6°C.	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): _____	Initials & Date of Person Examining Contents: SMC 11/1/24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6. 7 day hold
Sufficient Sample Volume?	☑	☐		7. 1:2 BP3N
Correct Containers Used? – Pace Containers Used?	☑ ☐	☐ ☑	☐	8. 2-6 1 BP3N
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		**11. If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☑	☐	☐	12. Sample #: 1:2 1 2-6: 1 1
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☑	☐	☐	☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				pH Paper Lot # (Residual Chlorine / 0-6 Roll: 205224 / 0-6 Strip / 0-14 Strip) ☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ **Date:** 11/01/24

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: SMC **Line:** 3

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1793219	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	8-Nov	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	**SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Metals	Residual Chlorine (Y/N)	
1	CH-CCR-M63A-1024	WT				21-Oct	10:53		1								1		X		MS/MSD, 200.7 - BE, B, CA, K,
2	CH-CCR-FD01-1024	WT				21-Oct	12:40		1								1		X		200.7 - BE, B, CA, K, LI, HG
3	CH-CCR-M59-1024	WT				21-Oct	13:48		1								1		X		200.7 - B, CA
4	CH-CCR-M61-1024	WT				21-Oct	15:13		1								1		X		200.7 - B, CA
5	CH-CCR-FD02-1024	WT				21-Oct	13:37		1								1		X		200.7 - B, CA
6	CH-CCR-FD05-1024	WT				21-Oct	16:20		1								1		X		200.7 - B, CA
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	31-Oct	14:21				
Pace Analytical Batch: WG2393148							
Pace Analytical SDGs: L1793219							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: **DATE Signed:**

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

ANALYTICAL REPORT

December 10, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

Sample Delivery Group:	L1795452
Samples Received:	11/04/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

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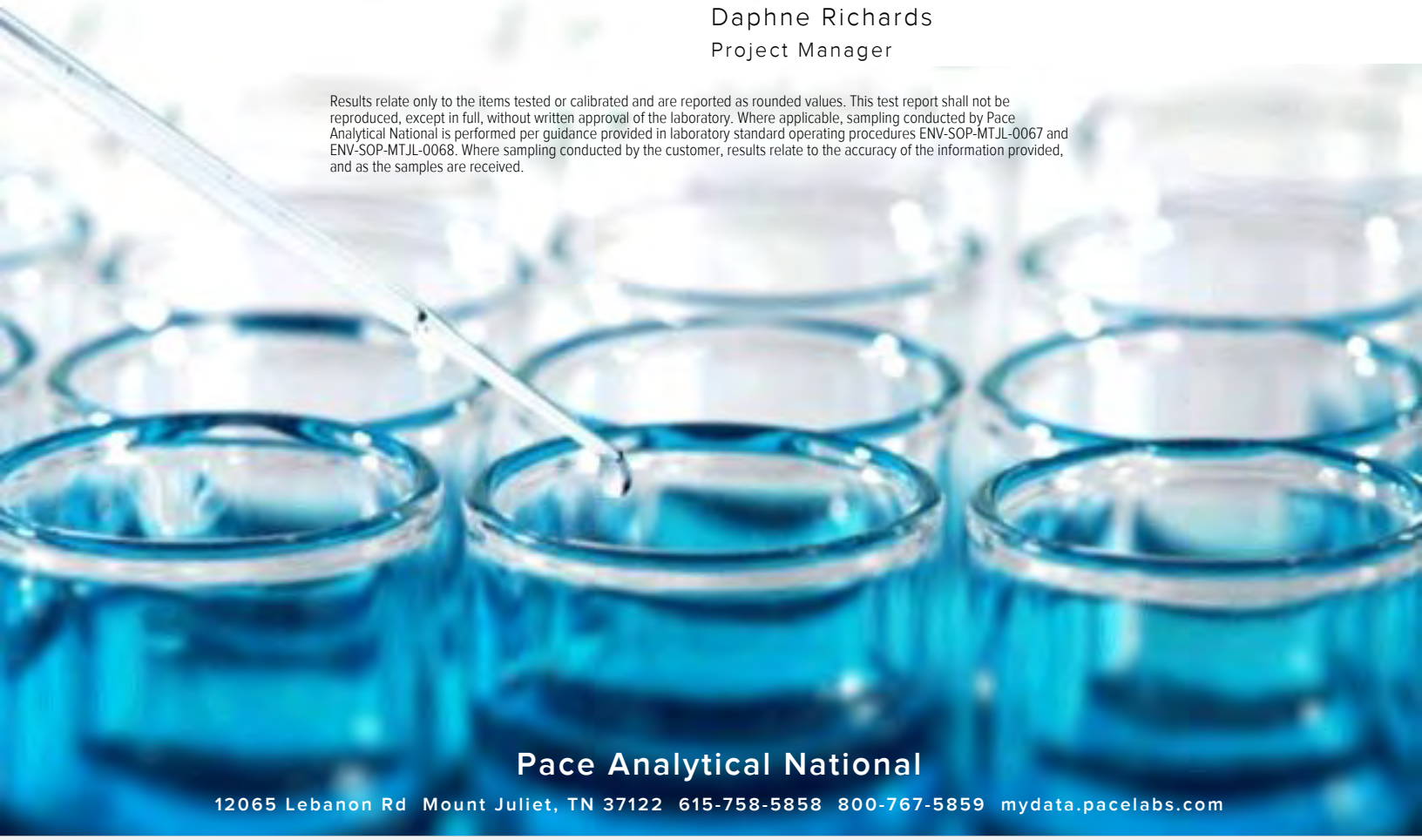

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CH-CCR-BUDHUNT-1024 L1795452-01 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 10:17 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:17	11/06/24 09:17	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	1	11/05/24 19:48	11/05/24 19:48	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 20:06	11/05/24 20:06	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:35	11/05/24 18:35	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 11:58	11/06/24 11:58	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 19:26	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW72M-1024 L1795452-02 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 11:42 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:22	11/06/24 09:22	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	50	11/05/24 20:23	11/05/24 20:23	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	500	11/05/24 20:41	11/05/24 20:41	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2408754	5	11/26/24 18:55	11/26/24 18:55	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:41	11/05/24 18:41	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:02	11/06/24 12:02	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 20:12	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW71A-1024 L1795452-03 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 15:02 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:28	11/06/24 09:28	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 20:58	11/05/24 20:58	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/05/24 21:15	11/05/24 21:15	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:45	11/05/24 18:45	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:09	11/06/24 12:09	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 20:38	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW73A-1024 L1795452-04 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 16:12 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:32	11/06/24 09:32	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/11/24 16:17	11/11/24 16:17	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/05/24 22:25	11/05/24 22:25	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:51	11/05/24 18:51	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:11	11/06/24 12:11	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 20:51	KAM	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-MW73A-1024 L1795452-04 WW

Collected by: Brad Hartman | Collected date/time: 10/29/24 16:12 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-W314-1024 L1795452-05 WW

Collected by: Brad Hartman | Collected date/time: 10/30/24 10:03 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:04	11/06/24 09:04	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 22:43	11/05/24 22:43	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/05/24 23:00	11/05/24 23:00	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:53	11/05/24 18:53	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:14	11/06/24 12:14	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 21:33	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW74M-1024 L1795452-06 WW

Collected by: Brad Hartman | Collected date/time: 10/30/24 12:27 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:37	11/06/24 09:37	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 23:17	11/05/24 23:17	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/05/24 23:35	11/05/24 23:35	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:54	11/05/24 18:54	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:15	11/06/24 12:15	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 22:28	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-MW64A-1024 L1795452-07 WW

Collected by: Brad Hartman | Collected date/time: 10/30/24 15:48 | Received date/time: 11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:43	11/06/24 09:43	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/05/24 23:52	11/05/24 23:52	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/06/24 00:10	11/06/24 00:10	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:56	11/05/24 18:56	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:16	11/06/24 12:16	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 22:57	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-MW77A-1024 L1795452-08 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	10/30/24 17:05	11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 09:58	11/06/24 09:58	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/06/24 00:27	11/06/24 00:27	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	100	11/06/24 00:44	11/06/24 00:44	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:57	11/05/24 18:57	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:18	11/06/24 12:18	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 23:11	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-M43A-1024 L1795452-09 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	10/31/24 10:23	11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 10:04	11/06/24 10:04	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2401598	10	11/14/24 20:41	11/14/24 20:41	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2401598	100	11/14/24 20:59	11/14/24 20:59	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 18:59	11/05/24 18:59	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:19	11/06/24 12:19	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 23:25	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

CH-CCR-W126R-1024 L1795452-10 WW

Collected by	Collected date/time	Received date/time
Brad Hartman	10/31/24 14:03	11/04/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2395622	1	11/05/24 13:43	11/05/24 21:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2395947	1	11/06/24 10:09	11/06/24 10:09	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2395684	10	11/06/24 02:11	11/06/24 02:11	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2395983	1	11/05/24 19:00	11/05/24 19:00	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2396329	1	11/06/24 12:20	11/06/24 12:20	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2395863	1	11/05/24 18:20	11/05/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2395607	1	11/05/24 15:59	11/05/24 23:39	KAM	Mt. Juliet, TN
Subcontracted Analyses	WG2396638	1	11/25/24 00:00	11/25/24 00:00	JWW	Minneapolis, MN 55414

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Project Narrative

L1795452 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1010000		20000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	177000		4750	20000	1	11/06/2024 09:17	WG2395947

Sample Narrative:
L1795452-01 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	315000		5470	10000	10	11/05/2024 20:06	WG2395684
Fluoride	438	B1	76.1	150	1	11/05/2024 19:48	WG2395684
Sulfate	247000		6370	50000	10	11/05/2024 20:06	WG2395684

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:35	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 11:58	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.85	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:
L1795452-01 WG2395863: 7.85 at 19.5C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	1130	H3	106	1000	1	11/05/2024 19:26	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	82300000		1000000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	27300		4750	20000	1	11/06/2024 09:22	WG2395947

Sample Narrative:

L1795452-02 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	32500000		274000	500000	500	11/05/2024 20:41	WG2395684
Fluoride	U		380	750	5	11/26/2024 18:55	WG2408754
Sulfate	1150000		31800	250000	50	11/05/2024 20:23	WG2395684

Sample Narrative:

L1795452-02 WG2408754, WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	764		53.9	100	1	11/05/2024 18:41	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	289		43.5	200	1	11/06/2024 12:02	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.89	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-02 WG2395863: 7.89 at 19.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1170	H3	106	1000	1	11/05/2024 20:12	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7460000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	94600		4750	20000	1	11/06/2024 09:28	WG2395947

Sample Narrative:

L1795452-03 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2130000		54700	100000	100	11/05/2024 21:15	WG2395684
Fluoride	3360	B1	761	1500	10	11/05/2024 20:58	WG2395684
Sulfate	2990000		63700	500000	100	11/05/2024 21:15	WG2395684

Sample Narrative:

L1795452-03 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	366		53.9	100	1	11/05/2024 18:45	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:09	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.60	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-03 WG2395863: 7.6 at 19.5C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1810	H3	106	1000	1	11/05/2024 20:38	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7440000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	91100		4750	20000	1	11/06/2024 09:32	WG2395947

Sample Narrative:

L1795452-04 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2070000		54700	100000	100	11/05/2024 22:25	WG2395684
Fluoride	4190	B1	761	1500	10	11/11/2024 16:17	WG2395684
Sulfate	3110000		63700	500000	100	11/05/2024 22:25	WG2395684

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:51	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	228		43.5	200	1	11/06/2024 12:11	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.40	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-04 WG2395863: 7.4 at 19.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1880	H3	106	1000	1	11/05/2024 20:51	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7040000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Carbonate	U		4750	20000	1	11/06/2024 09:04	WG2395947
Alkalinity,Hydroxide	U		4750	20000	1	11/06/2024 09:04	WG2395947

Sample Narrative:

L1795452-05 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2220000		54700	100000	100	11/05/2024 23:00	WG2395684
Fluoride	1200	B1 E4	761	1500	10	11/05/2024 22:43	WG2395684
Sulfate	2580000		63700	500000	100	11/05/2024 23:00	WG2395684

Sample Narrative:

L1795452-05 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:53	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:14	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.64	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-05 WG2395863: 7.64 at 19.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1730	H3	106	1000	1	11/05/2024 21:33	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6960000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	88100		4750	20000	1	11/06/2024 09:37	WG2395947

Sample Narrative:

L1795452-06 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	2120000		54700	100000	100	11/05/2024 23:35	WG2395684
Fluoride	1450	B1 E4	761	1500	10	11/05/2024 23:17	WG2395684
Sulfate	2590000		63700	500000	100	11/05/2024 23:35	WG2395684

Sample Narrative:

L1795452-06 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:54	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:15	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.63	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-06 WG2395863: 7.63 at 19.1C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	1510	H3	106	1000	1	11/05/2024 22:28	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	12200000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	458000		4750	20000	1	11/06/2024 09:43	WG2395947

Sample Narrative:

L1795452-07 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4340000		54700	100000	100	11/06/2024 00:10	WG2395684
Fluoride	798	B1 E4	761	1500	10	11/05/2024 23:52	WG2395684
Sulfate	3470000		63700	500000	100	11/06/2024 00:10	WG2395684

Sample Narrative:

L1795452-07 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/05/2024 18:56	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:16	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.51	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-07 WG2395863: 7.51 at 19.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	6630	H3	106	1000	1	11/05/2024 22:57	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	10800000		200000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	230000		4750	20000	1	11/06/2024 09:58	WG2395947

Sample Narrative:
L1795452-08 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	3340000		54700	100000	100	11/06/2024 00:44	WG2395684
Fluoride	895	B1 E4	761	1500	10	11/06/2024 00:27	WG2395684
Sulfate	3930000		63700	500000	100	11/06/2024 00:44	WG2395684

Sample Narrative:
L1795452-08 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	873		53.9	100	1	11/05/2024 18:57	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:18	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.55	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:
L1795452-08 WG2395863: 7.55 at 19.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1940	H3	106	1000	1	11/05/2024 23:11	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	5580000		100000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Carbonate	U		4750	20000	1	11/06/2024 10:04	WG2395947
Alkalinity,Hydroxide	U		4750	20000	1	11/06/2024 10:04	WG2395947

Sample Narrative:

L1795452-09 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2160000		54700	100000	100	11/14/2024 20:59	WG2401598
Fluoride	1000	E4	761	1500	10	11/14/2024 20:41	WG2401598
Sulfate	2000000		63700	500000	100	11/14/2024 20:59	WG2401598

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	327		53.9	100	1	11/05/2024 18:59	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:19	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.58	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-09 WG2395863: 7.58 at 19.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	3200	H3	106	1000	1	11/05/2024 23:25	WG2395607

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	16500000		400000	1	11/05/2024 21:31	WG2395622

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	83800		4750	20000	1	11/06/2024 10:09	WG2395947

Sample Narrative:

L1795452-10 WG2395947: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	213000		5470	10000	10	11/06/2024 02:11	WG2395684
Fluoride	840	B1 E4	761	1500	10	11/06/2024 02:11	WG2395684
Sulfate	751000		6370	50000	10	11/06/2024 02:11	WG2395684

Sample Narrative:

L1795452-10 WG2395684: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	684		53.9	100	1	11/05/2024 19:00	WG2395983

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/06/2024 12:20	WG2396329

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.52	H3	1	11/05/2024 18:20	WG2395863

Sample Narrative:

L1795452-10 WG2395863: 7.52 at 19.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2580	H3	106	1000	1	11/05/2024 23:39	WG2395607

Method Blank (MB)

(MB) R4143231-1 11/05/24 21:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Dissolved Solids	U		10000	10000

L1795371-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1795371-01 11/05/24 21:31 • (DUP) R4143231-3 11/05/24 21:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	148000	148000	1	0.000		10

L1795603-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1795603-04 11/05/24 21:31 • (DUP) R4143231-4 11/05/24 21:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	201000000	236000000	1	15.7	R8	10

Laboratory Control Sample (LCS)

(LCS) R4143231-2 11/05/24 21:31

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8210000	93.3	85.0-115	

Method Blank (MB)

(MB) R4142768-2 11/06/24 08:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000
Alkalinity,Hydroxide	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1795452-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-05 11/06/24 09:04 • (DUP) R4142768-3 11/06/24 09:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	113000	113000	1	0.679		20
Alkalinity,Carbonate	U	U	1	0.000		20
Alkalinity,Hydroxide	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1795789-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1795789-04 11/06/24 10:56 • (DUP) R4142768-4 11/06/24 11:03

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	620000	625000	1	0.769		20
Alkalinity,Carbonate	42800	42400	1	0.875		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4143313-1 11/05/24 17:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	99.4	E4	76.1	150
Sulfate	U		637	5000

L1794541-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1794541-23 11/05/24 17:46 • (DUP) R4143313-3 11/05/24 18:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	19800	19600	1	1.33		15
Fluoride	359	358	1	0.279		15
Sulfate	1240	1170	1	5.30	E4	15

L1795430-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1795430-01 11/05/24 18:56 • (DUP) R4143313-6 11/05/24 19:14

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6960	6520	1	6.61		15
Fluoride	705	633	1	10.7		15
Sulfate	2820	2580	1	8.94	E4	15

Laboratory Control Sample (LCS)

(LCS) R4143313-2 11/05/24 17:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40200	100	90.0-110	
Fluoride	8000	8350	104	90.0-110	
Sulfate	40000	40700	102	90.0-110	

L1794541-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794541-23 11/05/24 17:46 • (MS) R4143313-4 11/05/24 18:21 • (MSD) R4143313-5 11/05/24 18:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	19800	57100	56400	93.1	91.4	1	90.0-110			1.20	15
Fluoride	8000	359	7850	7710	93.6	91.9	1	90.0-110			1.71	15
Sulfate	40000	1240	42600	41800	104	101	1	90.0-110			2.02	15

L1795430-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1795430-01 11/05/24 18:56 • (MS) R4143313-7 11/05/24 19:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	6960	46500	98.8	1	90.0-110	
Fluoride	8000	705	8980	103	1	90.0-110	
Sulfate	40000	2820	43600	102	1	90.0-110	

Method Blank (MB)

(MB) R4146364-1 11/14/24 14:36

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1794416-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-21 11/14/24 16:55 • (DUP) R4146364-3 11/14/24 17:12

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	496000	624000	5	22.8	R8	15
Fluoride	403	469	5	15.1	E4 R8	15
Sulfate	4400000	5470000	5	21.7	R8	15

L1794416-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-22 11/14/24 18:05 • (DUP) R4146364-6 11/14/24 18:22

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	855000	857000	5	0.229		15
Fluoride	800	748	5	6.73	E4	15
Sulfate	6840000	6860000	5	0.313		15

Laboratory Control Sample (LCS)

(LCS) R4146364-2 11/14/24 14:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40100	100	90.0-110	
Fluoride	8000	8180	102	90.0-110	
Sulfate	40000	40500	101	90.0-110	

L1794416-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-21 11/14/24 16:55 • (MS) R4146364-4 11/14/24 17:30 • (MSD) R4146364-5 11/14/24 17:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	496000	525000	530000	73.0	85.5	5	90.0-110	M3	M3	0.944	15
Fluoride	8000	403	8010	8000	95.1	94.9	5	90.0-110			0.220	15
Sulfate	40000	4400000	4380000	4400000	0.000	2.43	5	90.0-110	E1 M3	E1 M3	0.437	15

L1794416-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-22 11/14/24 18:05 • (MS) R4146364-7 11/14/24 18:39 • (MSD) R4146364-8 11/14/24 18:57

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	855000	732000	745000	0.000	0.000	5	90.0-110	M3	M3	1.77	15
Fluoride	8000	800	8790	9010	99.9	103	5	90.0-110			2.41	15
Sulfate	40000	6840000	5610000	5680000	0.000	0.000	5	90.0-110	E1 M3	E1 M3	1.07	15

L1794416-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-23 11/14/24 19:14 • (MS) R4146364-9 11/14/24 19:32 • (MSD) R4146364-10 11/14/24 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	621000	532000	535000	0.000	0.000	5	90.0-110	M3	M3	0.649	15
Fluoride	8000	472	8330	8260	98.3	97.3	5	90.0-110			0.922	15
Sulfate	40000	5450000	4400000	4450000	0.000	0.000	5	90.0-110	E1 M3	E1 M3	1.08	15

Method Blank (MB)

(MB) R4151159-1 11/26/24 18:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Fluoride	U		76.1	150

L1803877-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1803877-01 11/26/24 20:15 • (DUP) R4151159-3 11/26/24 20:31

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	3710	3700	1	0.186		15

L1803877-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1803877-03 11/26/24 22:22 • (DUP) R4151159-7 11/26/24 22:38

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	2060	2060	1	0.345		15

Laboratory Control Sample (LCS)

(LCS) R4151159-2 11/26/24 18:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8000	8040	100	90.0-110	

L1803877-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1803877-01 11/26/24 20:15 • (MS) R4151159-4 11/26/24 20:47 • (MSD) R4151159-5 11/26/24 21:03

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	8000	3710	11200	11200	93.1	93.7	1	90.0-110	E1	E1	0.460	15

L1803877-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1803877-03 11/26/24 22:22 • (MS) R4151159-8 11/26/24 22:54

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	8000	2060	9780	96.6	1	90.0-110	

QUALITY CONTROL SUMMARY

L1795452-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R4142427-1 11/05/24 18:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ammonia Nitrogen	U		53.9	100

L1795452-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-01 11/05/24 18:35 • (DUP) R4142427-3 11/05/24 18:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ammonia Nitrogen	U	U	1	0.000		10

L1795452-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-02 11/05/24 18:41 • (DUP) R4142427-6 11/05/24 18:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ammonia Nitrogen	764	749	1	1.98		10

Laboratory Control Sample (LCS)

(LCS) R4142427-2 11/05/24 18:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Ammonia Nitrogen	7500	7710	103	90.0-110	

L1795452-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1795452-01 11/05/24 18:35 • (MS) R4142427-4 11/05/24 18:38 • (MSD) R4142427-5 11/05/24 18:39

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Ammonia Nitrogen	5000	U	5020	4910	100	98.2	1	90.0-110			2.28	10

L1795452-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1795452-02 11/05/24 18:41 • (MS) R4142427-7 11/05/24 18:44

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	ug/l	ug/l	ug/l	%		%	
Ammonia Nitrogen	5000	764	5850	102	1	90.0-110	

Method Blank (MB)

(MB) R4142717-1 11/06/24 11:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate-Nitrite	U		43.5	200

L1795452-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-02 11/06/24 12:02 • (DUP) R4142717-5 11/06/24 12:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	289	281	1	2.81		20

L1795452-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-04 11/06/24 12:11 • (DUP) R4142717-7 11/06/24 12:12

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	228	226	1	0.881		20

Laboratory Control Sample (LCS)

(LCS) R4142717-2 11/06/24 11:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2470	98.8	90.0-110	

L1795452-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1795452-01 11/06/24 11:58 • (MS) R4142717-3 11/06/24 12:00 • (MSD) R4142717-4 11/06/24 12:01

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	U	2410	2400	96.4	96.0	1	90.0-110			0.416	20

L1795452-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1795452-03 11/06/24 12:09 • (MS) R4142717-6 11/06/24 12:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	U	2410	96.4	1	90.0-110	

L1795452-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-02 11/05/24 18:20 • (DUP) R4142410-2 11/05/24 18:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.89	7.89	1	0.000		1

Sample Narrative:

OS: 7.89 at 19.6C

DUP: 7.89 at 19.6C

L1795742-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1795742-01 11/05/24 18:20 • (DUP) R4142410-3 11/05/24 18:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	9.58	9.59	1	0.104		1

Sample Narrative:

OS: 9.58 at 19.4C

DUP: 9.59 at 19.5C

Laboratory Control Sample (LCS)

(LCS) R4142410-1 11/05/24 18:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 20.5C

QUALITY CONTROL SUMMARY

L1795452-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R4142462-2 11/05/24 16:51

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
DOC	U		106	1000

L1795452-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-02 11/05/24 20:12 • (DUP) R4142462-5 11/05/24 20:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	1170	1140	1	3.38		20

L1795452-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1795452-06 11/05/24 22:28 • (DUP) R4142462-8 11/05/24 22:42

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	1510	1400	1	7.97		20

Laboratory Control Sample (LCS)

(LCS) R4142462-1 11/05/24 16:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
DOC	25000	24100	96.4	85.0-115	

L1795452-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1795452-01 11/05/24 19:26 • (MS) R4142462-3 11/05/24 19:43 • (MSD) R4142462-4 11/05/24 19:59

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25000	1130	25100	25100	95.8	95.9	1	80.0-120			0.120	20

L1795452-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1795452-05 11/05/24 21:33 • (MS) R4142462-6 11/05/24 21:50 • (MSD) R4142462-7 11/05/24 22:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25000	1730	25800	25600	96.4	95.6	1	80.0-120			0.739	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1756452
B169

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 Diss Metals FF 250mlHDPE-HNO3 (Field Filter)	200.7 Total Metals 250mlHDPE-HNO3	200.8 Diss Metals FF 250mlHDPE-HNO3 (Field Filter)	200.8 Total Metals 250mlHDPE-HNO3	ALK, ALKOH, ALK, HCO3 125mlHDPE-NoPres	Chloride 250mlHDPE-NoPres	DOC 250mlAmb-No Pres	Fluoride 250mlHDPE-NoPres	Hg 250mlHDPE-HNO3	NH3 250mlHDPENaThioH2SO4	Remarks	Sample # (lab only)
CH-CCR-BudHunt-1024	Grab	GW		10-29-24	1017	10	X	X	X	X	X	X	X	X	X	X		-01
CH-CCR-MW72M-1024		GW			1142	10	X	X	X	X	X	X	X	X	X	X		-02
CH-CCR-MW71A-1024		GW			1502	10	X	X	X	X	X	X	X	X	X	X		-03
CH-CCR-MW73A-1024		GW			1612	10	X	X	X	X	X	X	X	X	X	X		-04
CH-CCR-W314-1024		GW		10-30-24	1003	~~10~~ 9	X	X	X	X		X	X	X	X	X		-05
CH-CCR-MW74M-1024		GW			1227	10	X	X	X	X	X	X	X	X	X	X		-06
CH-CCR-M64A-1024		GW			1548	10	X	X	X	X	X	X	X	X	X	X		-07
CH-CCR-MW77A-1024		GW			1705	10												-08
CH-CCR-M43A-1024		GW		10-31-24	1023	~~10~~ 9												-09
CH-CCR-W126R-1024		GW			1403	10												-10

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co
↑ Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Stamand	11/1/2024	16:14	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/1/24	1800	FedEx
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			CRORENO

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 99

If preservation required by Login: Date/Time

Date: 11.04.24 Time: 1000

Hold:

Condition: NCF / OK

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Sulfate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres	Remarks	Sample # (lab only)
CH-CCR-BudHunt-1024	Grab	WW		10-29-24	1017	10	X	X	X		X		-01
CH-CCR-MW72M-1024		WW			1142	10	X	X	X		X		-02
CH-CCR-MW71A-1024		WW			1502	10	X	X	X		X		-03
CH-CCR-MW73A-1024		WW			1612	10	X	X	X		X		-04
CH-CCR-W314-1024		WW		10-30-24	1003	9	X	X	X		X		-05
CH-CCR-MW74M-1024		WW			1227	10	X	X	X		X		-06
CH-CCR-M64A-1024		WW			1548	10	X	X	X		X		-07
CH-CCR-MW77A-1024		WW			1705	10							-08
CH-CCR-M43A-1024		WW		10-31-24	1023	10							-09
CH-CCR-W126R-1024		WW			1403	10							-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co
(Co)

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[signature]	11/1/2024	16:14	[signature]
[signature]	11/1/24	1800	FedEx
			Received for lab by: (Signature)
			CRoberts

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 99

Date: 11.04.24 Time: 1000

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPA7

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1795452

Table #

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

LT95452

Fed Ex tracking #	Gun ID	Temperature
4041 0488 3106	TDA9	1.7+0.3=2.0
4041 0488 3091	TDA9	1.8+0.3=2.1
4041 0488 3117	TDA9	3.2+0.3=3.5

Name

Date

11/5-NCF-L1795452 AMECTAZ

R5

Time estimate: oh **Time spent:** oh

Members

Hailey Robertson (responsible) DR Daphne Richards

Due on *8 November 2024 8:00 AM* for target *Done*

- [x] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [ ] Sample IDs on containers do not match IDs on COC
- [x] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Hailey Robertson *5 November 2024 9:12 AM*

Client did not mark analysis for IDs: CH-CCR-MW77A-1024, CH-CCR-M43A-1024, CH-CCR-W126R-1024. Currently logged for the same analysis as the other IDs on the COC.

Daphne Richards *5 November 2024 9:14 AM*

Proceed using analysis on CoC as other samples

Hailey Robertson *5 November 2024 9:14 AM*

Done

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 25, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1795452 WG2396638
Pace Project No.: 10715045

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10715045001	**CH-CCR-BUDHUNT-1024**	Water	10/29/24 10:17	11/08/24 10:00
10715045002	**CH-CCR-MW72M-1024**	Water	10/29/24 11:42	11/08/24 10:00
10715045003	**CH-CCR-MW71A-1024**	Water	10/29/24 15:02	11/08/24 10:00
10715045004	**CH-CCR-MW73A-1024**	Water	10/29/24 16:12	11/08/24 10:00
10715045005	**CH-CCR-W314-1024**	Water	10/30/24 10:03	11/08/24 10:00
10715045006	**CH-CCR-MW74M-1024**	Water	10/30/24 12:27	11/08/24 10:00
10715045007	**CH-CCR-MW64A-1024**	Water	10/30/24 15:48	11/08/24 10:00
10715045008	**CH-CCR-MW77A-1024**	Water	10/30/24 17:05	11/08/24 10:00
10715045009	**CH-CCR-M43A-1024**	Water	10/31/24 10:23	11/08/24 10:00
10715045010	**CH-CCR-W126R-1024**	Water	10/31/24 14:03	11/08/24 10:00

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(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045002	**CH-CCR-MW72M-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045003	**CH-CCR-MW71A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045004	**CH-CCR-MW73A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045005	**CH-CCR-W314-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045006	**CH-CCR-MW74M-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045007	**CH-CCR-MW64A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045008	**CH-CCR-MW77A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045009	**CH-CCR-M43A-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715045010	**CH-CCR-W126R-1024**	EPA 200.7	IP, SMB	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	GAS1	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-BUDHUNT-1024 **Lab ID: 10715045001** Collected: 10/29/24 10:17 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:32	7440-41-7	
Boron	**125J**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:32	7440-42-8	
Calcium	**81300**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:32	7440-70-2	
Iron	**9.2J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:32	7439-89-6	
Magnesium	**39100**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:32	7439-95-4	
Manganese	**0.90J**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:32	7439-96-5	
Potassium	**3660**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:01	7440-09-7	
Sodium	**219000**	ug/L	5000	227	5	11/11/24 13:54	11/18/24 16:37	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**7.5J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:16	7439-89-6	
Manganese, Dissolved	**0.79J**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:16	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.087**	ug/L	0.50	0.087	1	11/11/24 14:14	11/13/24 12:43	7440-36-0	
Arsenic	**0.46J**	ug/L	0.50	0.12	1	11/11/24 14:14	11/13/24 12:43	7440-38-2	
Barium	**10.9**	ug/L	0.30	0.070	1	11/11/24 14:14	11/13/24 12:43	7440-39-3	
Cadmium	**<0.030**	ug/L	0.080	0.030	1	11/11/24 14:14	11/13/24 12:43	7440-43-9	
Chromium	**<0.54**	ug/L	2.0	0.54	1	11/11/24 14:14	11/13/24 12:43	7440-47-3	
Cobalt	**<0.095**	ug/L	0.50	0.095	1	11/11/24 14:14	11/13/24 12:43	7440-48-4	
Lead	**0.23J**	ug/L	0.50	0.18	1	11/11/24 14:14	11/13/24 12:43	7439-92-1	
Lithium	**19.5**	ug/L	0.50	0.18	1	11/11/24 14:14	11/13/24 12:43	7439-93-2	
Molybdenum	**1.7**	ug/L	0.50	0.13	1	11/11/24 14:14	11/13/24 12:43	7439-98-7	
Selenium	**1.4**	ug/L	0.50	0.074	1	11/11/24 14:14	11/13/24 12:43	7782-49-2	
Thallium	**<0.026**	ug/L	0.10	0.026	1	11/11/24 14:14	11/13/24 12:43	7440-28-0	
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.49J**	ug/L	0.50	0.12	1	11/11/24 14:14	11/14/24 09:28	7440-38-2	
Cobalt, Dissolved	**<0.095**	ug/L	0.50	0.095	1	11/11/24 14:14	11/14/24 09:28	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:35	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW72M-1024 **Lab ID: 10715045002** Collected: 10/29/24 11:42 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<2.2**	ug/L	25.0	2.2	5	11/11/24 13:54	11/12/24 14:48	7440-41-7	D3
Boron	**515J**	ug/L	750	80.0	5	11/11/24 13:54	11/12/24 14:48	7440-42-8	
Calcium	**7790000**	ug/L	50000	3180	100	11/11/24 13:54	11/18/24 16:59	7440-70-2	
Iron	**403**	ug/L	250	37.3	5	11/11/24 13:54	11/12/24 14:48	7439-89-6	
Magnesium	**1010000**	ug/L	2500	144	5	11/11/24 13:54	11/12/24 14:48	7439-95-4	
Manganese	**3420**	ug/L	25.0	2.5	5	11/11/24 13:54	11/12/24 14:48	7439-96-5	
Potassium	**156000**	ug/L	12500	540	5	11/11/24 13:54	11/18/24 16:03	7440-09-7	
Sodium	**10900000**	ug/L	100000	4540	100	11/11/24 13:54	11/18/24 16:59	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**<37.3**	ug/L	250	37.3	5	11/11/24 13:54	11/12/24 13:50	7439-89-6	D3
Manganese, Dissolved	**3550**	ug/L	25.0	2.5	5	11/11/24 13:54	11/12/24 13:50	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 12:34	7440-36-0	D3
Arsenic	**3.5**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 12:34	7440-38-2	
Barium	**121**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 12:34	7440-39-3	
Cadmium	**0.21J**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 12:34	7440-43-9	D3
Chromium	**10.2**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 12:34	7440-47-3	
Cobalt	**2.6**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 12:34	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 12:34	7439-92-1	D3
Lithium	**3720**	ug/L	50.0	18.5	100	11/11/24 14:14	11/13/24 12:51	7439-93-2	
Molybdenum	**20.1**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 12:34	7439-98-7	
Selenium	**3.7**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 12:34	7782-49-2	
Thallium	**1.6**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 12:34	7440-28-0	
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**3.5**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:04	7440-38-2	
Cobalt, Dissolved	**1.8J**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:04	7440-48-4	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:39	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW71A-1024 **Lab ID: 10715045003** Collected: 10/29/24 15:02 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:36	7440-41-7	
Boron	**3760**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:36	7440-42-8	
Calcium	**554000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:36	7440-70-2	
Iron	**375**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:36	7439-89-6	
Magnesium	**224000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:36	7439-95-4	
Manganese	**5610**	ug/L	10.0	1.0	2	11/11/24 13:54	11/12/24 14:47	7439-96-5	
Potassium	**20600**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:05	7440-09-7	
Sodium	**1440000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:40	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**8.5J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:22	7439-89-6	
Manganese, Dissolved	**5300**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:22	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 12:47	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 12:47	7440-38-2	D3
Barium	**15.9**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 12:47	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 12:47	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 12:47	7440-47-3	D3
Cobalt	**11.8**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 12:47	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 12:47	7439-92-1	D3
Lithium	**161**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 12:47	7439-93-2	
Molybdenum	**32.1**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 12:47	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 12:47	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 12:47	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:12	7440-38-2	D3
Cobalt, Dissolved	**11.1**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:12	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:41	7439-97-6	

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(612)607-1700

ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW73A-1024 **Lab ID: 10715045004** Collected: 10/29/24 16:12 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:37	7440-41-7	
Boron	**4250**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:37	7440-42-8	
Calcium	**532000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:37	7440-70-2	
Iron	**1760**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:37	7439-89-6	
Magnesium	**263000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:37	7439-95-4	
Manganese	**537**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:37	7439-96-5	
Potassium	**22300**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:12	7440-09-7	
Sodium	**1600000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:42	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Iron, Dissolved	**547**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:29	7439-89-6	
Manganese, Dissolved	**230**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:29	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 12:55	7440-36-0	D3
Arsenic	**1.0J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 12:55	7440-38-2	D3
Barium	**8.6**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 12:55	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 12:55	7440-43-9	D3
Chromium	**706**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 12:55	7440-47-3	
Cobalt	**13.0**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 12:55	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 12:55	7439-92-1	D3
Lithium	**148**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 12:55	7439-93-2	
Molybdenum	**199**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 12:55	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 12:55	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 12:55	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:21	7440-38-2	D3
Cobalt, Dissolved	**14.6**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:21	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:46	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-W314-1024 **Lab ID: 10715045005** Collected: 10/30/24 10:03 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:39	7440-41-7	
Boron	**1650**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:39	7440-42-8	
Calcium	**584000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:39	7440-70-2	
Iron	**25.5J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:39	7439-89-6	
Magnesium	**160000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:39	7439-95-4	
Manganese	**272**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:39	7439-96-5	
Potassium	**3330**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:13	7440-09-7	
Sodium	**1600000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:43	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**20.0J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:31	7439-89-6	
Manganese, Dissolved	**280**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:31	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:12	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:12	7440-38-2	D3
Barium	**9.2**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:12	7440-39-3	
Cadmium	**0.55**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:12	7440-43-9	
Chromium	**4.0J**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:12	7440-47-3	D3
Cobalt	**40.5**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:12	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:12	7439-92-1	D3
Lithium	**238**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:12	7439-93-2	
Molybdenum	**15.6**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:12	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:12	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:12	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:37	7440-38-2	D3
Cobalt, Dissolved	**40.2**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:37	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:48	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW74M-1024 **Lab ID: 10715045006** Collected: 10/30/24 12:27 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:41	7440-41-7	
Boron	**2290**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:41	7440-42-8	
Calcium	**620000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:41	7440-70-2	
Iron	**241**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:41	7439-89-6	
Magnesium	**146000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:41	7439-95-4	
Manganese	**201**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:41	7439-96-5	
Potassium	**18100**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:15	7440-09-7	
Sodium	**1500000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:45	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**13.4J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:33	7439-89-6	
Manganese, Dissolved	**189**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:33	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:20	7440-36-0	D3
Arsenic	**0.66J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:20	7440-38-2	D3
Barium	**9.1**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:20	7440-39-3	
Cadmium	**0.16J**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:20	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:20	7440-47-3	D3
Cobalt	**13.6**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:20	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:20	7439-92-1	D3
Lithium	**188**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:20	7439-93-2	
Molybdenum	**39.5**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:20	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:20	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:20	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:46	7440-38-2	D3
Cobalt, Dissolved	**13.5**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:46	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:49	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW64A-1024 **Lab ID: 10715045007** Collected: 10/30/24 15:48 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:42	7440-41-7	
Boron	**1030**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:42	7440-42-8	
Calcium	**556000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:42	7440-70-2	
Iron	**6430**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:42	7439-89-6	
Magnesium	**288000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:42	7439-95-4	
Manganese	**2300**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:42	7439-96-5	
Potassium	**20600**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:17	7440-09-7	
Sodium	**3130000**	ug/L	20000	908	20	11/11/24 13:54	11/18/24 16:47	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**5980**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:34	7439-89-6	
Manganese, Dissolved	**2300**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:34	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:24	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:24	7440-38-2	D3
Barium	**12.3**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:24	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:24	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:24	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:24	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:24	7439-92-1	D3
Lithium	**223**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:24	7439-93-2	
Molybdenum	**3.3**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:24	7439-98-7	
Selenium	**0.48J**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:24	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:24	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 15:54	7440-38-2	D3
Cobalt, Dissolved	**<0.48**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 15:54	7440-48-4	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:51	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-MW77A-1024 **Lab ID: 10715045008** Collected: 10/30/24 17:05 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:44	7440-41-7	
Boron	**781**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:44	7440-42-8	
Calcium	**487000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:44	7440-70-2	
Iron	**14.3J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:44	7439-89-6	
Magnesium	**108000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:44	7439-95-4	
Manganese	**685**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:44	7439-96-5	
Potassium	**10500**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:18	7440-09-7	
Sodium	**2900000**	ug/L	20000	908	20	11/11/24 13:54	11/18/24 16:48	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**7.9J**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:36	7439-89-6	
Manganese, Dissolved	**690**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:36	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:33	7440-36-0	D3
Arsenic	**0.81J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:33	7440-38-2	D3
Barium	**8.2**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:33	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:33	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:33	7440-47-3	D3
Cobalt	**5.1**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:33	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:33	7439-92-1	D3
Lithium	**412**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:33	7439-93-2	
Molybdenum	**4.7**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:33	7439-98-7	
Selenium	**1.4J**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:33	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:33	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.76J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 16:02	7440-38-2	D3
Cobalt, Dissolved	**5.3**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 16:02	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:52	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-M43A-1024 **Lab ID: 10715045009** Collected: 10/31/24 10:23 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:51	7440-41-7	
Boron	**525**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:51	7440-42-8	
Calcium	**522000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:51	7440-70-2	P6
Iron	**2300**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:51	7439-89-6	
Magnesium	**205000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:51	7439-95-4	P6
Manganese	**1730**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:51	7439-96-5	
Potassium	**13500**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:20	7440-09-7	
Sodium	**1470000**	ug/L	10000	454	10	11/11/24 13:54	11/18/24 16:53	7440-23-5	P6
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**1780**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:38	7439-89-6	
Manganese, Dissolved	**1740**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:38	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 13:41	7440-36-0	D3
Arsenic	**2.2J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 13:41	7440-38-2	D3
Barium	**17.8**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 13:41	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 13:41	7440-43-9	D3
Chromium	**3.1J**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 13:41	7440-47-3	D3
Cobalt	**0.49J**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 13:41	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 13:41	7439-92-1	D3
Lithium	**105**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 13:41	7439-93-2	
Molybdenum	**14.2**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 13:41	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 13:41	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 13:41	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**1.0J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 16:11	7440-38-2	D3
Cobalt, Dissolved	**0.52J**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 16:11	7440-48-4	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:56	7439-97-6	

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ANALYTICAL RESULTS

Project: L1795452 WG2396638
Pace Project No.: 10715045

Sample: CH-CCR-W126R-1024 **Lab ID: 10715045010** Collected: 10/31/24 14:03 Received: 11/08/24 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/11/24 13:54	11/12/24 13:54	7440-41-7	
Boron	**53500**	ug/L	150	16.0	1	11/11/24 13:54	11/12/24 13:54	7440-42-8	
Calcium	**670000**	ug/L	500	31.8	1	11/11/24 13:54	11/12/24 13:54	7440-70-2	
Iron	**52.9**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:54	7439-89-6	
Magnesium	**453000**	ug/L	500	28.9	1	11/11/24 13:54	11/12/24 13:54	7439-95-4	
Manganese	**970**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:54	7439-96-5	
Potassium	**57700**	ug/L	2500	108	1	11/11/24 13:54	11/18/24 16:23	7440-09-7	
Sodium	**4170000**	ug/L	50000	2270	50	11/11/24 13:54	11/18/24 17:00	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**62.4**	ug/L	50.0	7.5	1	11/11/24 13:54	11/12/24 13:41	7439-89-6	
Manganese, Dissolved	**935**	ug/L	5.0	0.50	1	11/11/24 13:54	11/12/24 13:41	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/11/24 14:14	11/13/24 11:40	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 11:40	7440-38-2	D3
Barium	**9.1**	ug/L	1.5	0.35	5	11/11/24 14:14	11/13/24 11:40	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/11/24 14:14	11/13/24 11:40	7440-43-9	D3
Chromium	**5.6J**	ug/L	10.0	2.7	5	11/11/24 14:14	11/13/24 11:40	7440-47-3	D3
Cobalt	**4.5**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 11:40	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/11/24 14:14	11/13/24 11:40	7439-92-1	D3
Lithium	**490**	ug/L	2.5	0.92	5	11/11/24 14:14	11/13/24 11:40	7439-93-2	
Molybdenum	**198**	ug/L	2.5	0.63	5	11/11/24 14:14	11/13/24 11:40	7439-98-7	
Selenium	**1.4J**	ug/L	2.5	0.37	5	11/11/24 14:14	11/13/24 11:40	7782-49-2	D3
Thallium	**0.16J**	ug/L	0.50	0.13	5	11/11/24 14:14	11/13/24 11:40	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.63J**	ug/L	2.5	0.61	5	11/11/24 14:14	11/13/24 16:27	7440-38-2	D3
Cobalt, Dissolved	**4.7**	ug/L	2.5	0.48	5	11/11/24 14:14	11/13/24 16:27	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/11/24 14:45	11/14/24 10:57	7439-97-6	

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978852
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115450 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/14/24 10:28	

LABORATORY CONTROL SAMPLE: 5115451

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115452 5115453

Parameter	Units	10715045001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	5.0	4.9	99	97	70-130	2	20	

MATRIX SPIKE SAMPLE: 5115454

Parameter	Units	10715045008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.074	5	4.9	98	70-130	

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978833
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115368 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/12/24 13:19	
Boron	ug/L	16.3J	150	16.0	11/12/24 13:19	
Calcium	ug/L	<31.8	500	31.8	11/12/24 13:19	
Iron	ug/L	<7.5	50.0	7.5	11/12/24 13:19	
Magnesium	ug/L	<28.9	500	28.9	11/12/24 13:19	
Manganese	ug/L	<0.50	5.0	0.50	11/12/24 13:19	
Potassium	ug/L	<108	2500	108	11/12/24 13:19	
Sodium	ug/L	67.9J	1000	45.4	11/12/24 13:19	

LABORATORY CONTROL SAMPLE: 5115369

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	980	98	85-115	
Boron	ug/L	1000	1000	100	85-115	
Calcium	ug/L	20000	18500	93	85-115	
Iron	ug/L	20000	18900	94	85-115	
Magnesium	ug/L	20000	18800	94	85-115	
Manganese	ug/L	1000	978	98	85-115	
Potassium	ug/L	20000	18200	91	85-115	
Sodium	ug/L	20000	18400	92	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115370 5115371

Parameter	Units	10715044001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1050	1050	105	105	70-130	0	20	
Boron	ug/L	3550	1000	1000	4830	4680	128	113	70-130	3	20	
Calcium	ug/L	565000	20000	20000	599000	588000	169	117	70-130	2	20	P6
Iron	ug/L	757	20000	20000	19500	19400	93	93	70-130	0	20	
Magnesium	ug/L	225000	20000	20000	254000	248000	143	114	70-130	2	20	P6
Manganese	ug/L	1930	1000	1000	2930	2880	100	95	70-130	2	20	
Potassium	ug/L	4140	20000	20000	30000	29500	129	127	70-130	2	20	
Sodium	ug/L	1640000	20000	20000	1630000	1610000	-46	-125	70-130	1	20	P6

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

MATRIX SPIKE SAMPLE: 5115372

Parameter	Units	10715045009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	1050	105	70-130	
Boron	ug/L	525	1000	1640	111	70-130	
Calcium	ug/L	522000	20000	556000	167	70-130	P6
Iron	ug/L	2300	20000	21200	94	70-130	
Magnesium	ug/L	205000	20000	235000	147	70-130	P6
Manganese	ug/L	1730	1000	2750	101	70-130	
Potassium	ug/L	13500	20000	37600	120	70-130	
Sodium	ug/L	1470000	20000	1290000	-919	70-130	P6

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978831
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115358 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<7.5	50.0	7.5	11/12/24 13:01	
Manganese, Dissolved	ug/L	<0.50	5.0	0.50	11/12/24 13:01	

LABORATORY CONTROL SAMPLE: 5115359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	20000	19200	96	85-115	
Manganese, Dissolved	ug/L	1000	962	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115360 5115361

Parameter	Units	10715044001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	330	20000	20000	19300	19600	95	96	70-130	1	20	
Manganese, Dissolved	ug/L	1880	1000	1000	2830	2860	95	98	70-130	1	20	

MATRIX SPIKE SAMPLE: 5115362

Parameter	Units	10715045009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	1780	20000	21000	96	70-130	
Manganese, Dissolved	ug/L	1740	1000	2710	97	70-130	

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978834
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115373 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/12/24 15:01	
Arsenic	ug/L	<0.12	0.50	0.12	11/12/24 15:01	
Barium	ug/L	<0.070	0.30	0.070	11/12/24 15:01	
Cadmium	ug/L	<0.030	0.080	0.030	11/12/24 15:01	
Chromium	ug/L	<0.54	2.0	0.54	11/12/24 15:01	
Cobalt	ug/L	<0.095	0.50	0.095	11/12/24 15:01	
Lead	ug/L	<0.18	0.50	0.18	11/12/24 15:01	
Lithium	ug/L	<0.18	0.50	0.18	11/12/24 15:01	
Molybdenum	ug/L	<0.13	0.50	0.13	11/12/24 15:01	
Selenium	ug/L	<0.074	0.50	0.074	11/12/24 15:01	
Thallium	ug/L	<0.026	0.10	0.026	11/12/24 15:01	

LABORATORY CONTROL SAMPLE: 5115374

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	97.6	98	85-115	
Arsenic	ug/L	100	101	101	85-115	
Barium	ug/L	100	104	104	85-115	
Cadmium	ug/L	100	97.0	97	85-115	
Chromium	ug/L	100	104	104	85-115	
Cobalt	ug/L	100	106	106	85-115	
Lead	ug/L	100	106	106	85-115	
Lithium	ug/L	100	104	104	85-115	
Molybdenum	ug/L	100	95.8	96	85-115	
Selenium	ug/L	100	103	103	85-115	
Thallium	ug/L	100	101	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115375 5115376

Parameter	Units	10715044002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.087	100	100	93.3	92.8	93	93	70-130	0	20	
Arsenic	ug/L	0.74	100	100	104	104	104	104	70-130	0	20	
Barium	ug/L	10.1	100	100	113	113	103	103	70-130	0	20	
Cadmium	ug/L	0.33	100	100	82.3	81.3	82	81	70-130	1	20	
Chromium	ug/L	1.0J	100	100	111	107	110	106	70-130	3	20	

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QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115375 5115376

Parameter	Units	10715044002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	ug/L	14.4	100	100	117	116	103	102	70-130	1	20	
Lead	ug/L	1.9	100	100	104	105	102	103	70-130	1	20	
Lithium	ug/L	144	100	100	232	233	88	90	70-130	1	20	
Molybdenum	ug/L	31.4	100	100	126	126	95	94	70-130	0	20	
Selenium	ug/L	1.9	100	100	103	107	101	105	70-130	4	20	
Thallium	ug/L	<0.13	100	100	102	100	102	100	70-130	1	20	

MATRIX SPIKE SAMPLE: 5115377

Parameter	Units	10715045010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.44	100	95.0	95	70-130	
Arsenic	ug/L	<0.61	100	102	102	70-130	
Barium	ug/L	9.1	100	106	97	70-130	
Cadmium	ug/L	<0.15	100	89.0	89	70-130	
Chromium	ug/L	5.6J	100	110	104	70-130	
Cobalt	ug/L	4.5	100	105	101	70-130	
Lead	ug/L	<0.90	100	96.2	96	70-130	
Lithium	ug/L	490	100	598	107	70-130	
Molybdenum	ug/L	198	100	291	93	70-130	
Selenium	ug/L	1.4J	100	96.5	95	70-130	
Thallium	ug/L	0.16J	100	101	101	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1795452 WG2396638
Pace Project No.: 10715045

QC Batch: 978832
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

METHOD BLANK: 5115363 Matrix: Water
Associated Lab Samples: 10715045001, 10715045002, 10715045003, 10715045004, 10715045005, 10715045006, 10715045007, 10715045008, 10715045009, 10715045010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<0.12	0.50	0.12	11/13/24 13:58	
Cobalt, Dissolved	ug/L	<0.095	0.50	0.095	11/13/24 13:58	

LABORATORY CONTROL SAMPLE: 5115364

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	97.1	97	85-115	
Cobalt, Dissolved	ug/L	100	103	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115365 5115366

Parameter	Units	10715044002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	<0.61	100	100	105	106	104	106	70-130	1	20	
Cobalt, Dissolved	ug/L	15.4	100	100	119	121	104	106	70-130	2	20	

MATRIX SPIKE SAMPLE: 5115367

Parameter	Units	10715045010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	0.63J	100	104	103	70-130	
Cobalt, Dissolved	ug/L	4.7	100	108	103	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: L1795452 WG2396638
Pace Project No.: 10715045

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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Minneapolis, MN 55414
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045002	**CH-CCR-MW72M-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045003	**CH-CCR-MW71A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045004	**CH-CCR-MW73A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045005	**CH-CCR-W314-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045006	**CH-CCR-MW74M-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045007	**CH-CCR-MW64A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045008	**CH-CCR-MW77A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045009	**CH-CCR-M43A-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045010	**CH-CCR-W126R-1024**	EPA 200.7	978833	EPA 200.7	979176
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045002	**CH-CCR-MW72M-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045003	**CH-CCR-MW71A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045004	**CH-CCR-MW73A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045005	**CH-CCR-W314-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045006	**CH-CCR-MW74M-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045007	**CH-CCR-MW64A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045008	**CH-CCR-MW77A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045009	**CH-CCR-M43A-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045010	**CH-CCR-W126R-1024**	EPA 200.7	978831	EPA 200.7	979177
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045002	**CH-CCR-MW72M-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045003	**CH-CCR-MW71A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045004	**CH-CCR-MW73A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045005	**CH-CCR-W314-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045006	**CH-CCR-MW74M-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045007	**CH-CCR-MW64A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045008	**CH-CCR-MW77A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045009	**CH-CCR-M43A-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045010	**CH-CCR-W126R-1024**	EPA 200.8	978834	EPA 200.8	979143
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045002	**CH-CCR-MW72M-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045003	**CH-CCR-MW71A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045004	**CH-CCR-MW73A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045005	**CH-CCR-W314-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045006	**CH-CCR-MW74M-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045007	**CH-CCR-MW64A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045008	**CH-CCR-MW77A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045009	**CH-CCR-M43A-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045010	**CH-CCR-W126R-1024**	EPA 200.8	978832	EPA 200.8	979142
10715045001	**CH-CCR-BUDHUNT-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045002	**CH-CCR-MW72M-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045003	**CH-CCR-MW71A-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045004	**CH-CCR-MW73A-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045005	**CH-CCR-W314-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045006	**CH-CCR-MW74M-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045007	**CH-CCR-MW64A-1024**	EPA 245.1	978852	EPA 245.1	979164

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1795452 WG2396638
Pace Project No.: 10715045

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10715045008	**CH-CCR-MW77A-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045009	**CH-CCR-M43A-1024**	EPA 245.1	978852	EPA 245.1	979164
10715045010	**CH-CCR-W126R-1024**	EPA 245.1	978852	EPA 245.1	979164

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Sub-Contract Chain of Custody

Batch Date/Time: 11/06/24 13:21
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2396638
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 11/15/24
ESC Purchase Order #: L1795452
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

WO# : 10715045



Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only
CH-CCR-BUDHUNT-1024 250mlHDPE-HNO3 - 49912525 250mlHDPE-HNO3 - 49912526 250mlHDPE-HNO3 - 49912527 250mlHDPE-HNO3 - 49912528	WW	AZ	10/29/24 10:17	Metals	1. L1795452-01	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 001
CH-CCR-MW72M-1024 250mlHDPE-HNO3 - 49912535 250mlHDPE-HNO3 - 49912536 250mlHDPE-HNO3 - 49912537 250mlHDPE-HNO3 - 49912538	WW	AZ	10/29/24 11:42	Metals	2. L1795452-02	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 002
CH-CCR-MW71A-1024 250mlHDPE-HNO3 - 49912545 250mlHDPE-HNO3 - 49912546 250mlHDPE-HNO3 - 49912547 250mlHDPE-HNO3 - 49912548	WW	AZ	10/29/24 15:02	Metals	3. L1795452-03	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 003
CH-CCR-MW73A-1024 250mlHDPE-HNO3 - 49912555 250mlHDPE-HNO3 - 49912556 250mlHDPE-HNO3 - 49912557 250mlHDPE-HNO3 - 49912558	WW	AZ	10/29/24 16:12	Metals	4. L1795452-04	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 004
CH-CCR-W314-1024 250mlHDPE-HNO3 - 49912565 250mlHDPE-HNO3 - 49912566 250mlHDPE-HNO3 - 49912567 250mlHDPE-HNO3 - 49912568	WW	AZ	10/30/24 10:03	Metals	5. L1795452-05	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 005
CH-CCR-MW74M-1024 250mlHDPE-HNO3 - 49912575 250mlHDPE-HNO3 - 49912576 250mlHDPE-HNO3 - 49912577 250mlHDPE-	WW	AZ	10/30/24 12:27	Metals	6. L1795452-06	Hg, 200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 006

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only
HNO3 - 49912578						
CH-CCR-MW64A-1024 250mlHDPE-HNO3 - 49912585 250mlHDPE-HNO3 - 49912586 250mlHDPE-HNO3 - 49912587 250mlHDPE-HNO3 - 49912588	WW	AZ	10/30/24 15:48	Metals	7. L1795452-07	Hg,200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 007
CH-CCR-MW77A-1024 250mlHDPE-HNO3 - 49912596 250mlHDPE-HNO3 - 49912597 250mlHDPE-HNO3 - 49912598 250mlHDPE-HNO3 - 49912599	WW	AZ	10/30/24 17:05	Metals	8. L1795452-08	Hg,200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 008
CH-CCR-M43A-1024 250mlHDPE-HNO3 - 49912606 250mlHDPE-HNO3 - 49912607 250mlHDPE-HNO3 - 49912608 250mlHDPE-HNO3 - 49912609	WW	AZ	10/31/24 10:23	Metals	9. L1795452-09	Hg,200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 009
CH-CCR-W126R-1024 250mlHDPE-HNO3 - 49912616 250mlHDPE-HNO3 - 49912617 250mlHDPE-HNO3 - 49912618 250mlHDPE-HNO3 - 49912619	WW	AZ	10/31/24 14:03	Metals	10. L1795452-10	Hg,200.7-B,Ca,Be,Li,Fe,Mn,K,Mg,Na, 200.7 Dissolved-Fe,Mn, 200.8-Sb,As,Ba,Cd,Co,Cr,Pb,Mo,Se,Tl, 200.8 Dissolved-As,Co, Needs MATRIXGAZ EDD and MDLRDL 010

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ **Date** 11-6-24

Received by: Pace **Date** 11-8-24 10:00

Relinquished by: _____ **Date** _____

Received by: _____ **Date** _____

NO ICE

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTJL **PROJECT #:** **WO#: 10715045**

PM: TKL **Due Date: 11/22/24**

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: _____ ☑ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: +0.1 **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C *NOTE: Temp should be above freezing to 6°C.*	**Average Corrected Temp (no Temp Blank Only):** 15 °C EC 11-8-24 (15.2) / 15.9 ☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – (Water) Sample/Other (describe): _____ Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	**Initials & Date of Person Examining Contents:** EC 11-8-24 Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO

NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☑	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☑	☐		6. 11-15-24
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☑	☐ ☐	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☑	☐	☐	10. Is sediment visible in the dissolved container: ☐ YES ☑ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☑	☐	☐	12. Sample #: 001-010
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☑	☐	☐	4/4 ☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #**
				Residual Chlorine: _____ 0-6 Roll: 205224 0-6 Strip: _____ 0-14 Strip: _____
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: Anchea Richardson **Date:** 11/8/24

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: EC **Line:** 2

Workorder #: 10715045

No Temp Blank					
Read Temp		Corrected Temp		Average temp	
16.1	15.7	16.2	15.8	15.7	15.9
15.5	15.6	15.6	15.7		
15.3	15.7	15.4	15.8		
15.5	16.2	15.6	16.3		

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature
425709278839	15.7
425709278828	15.9

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition? YES	In Compliance After Addition? NO	Initials
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:

ANALYTICAL REPORT

December 16, 2024

Revised Report

WSP (Formely Wood E&I)-Phoenix, AZ

Sample Delivery Group:	L1797996
Samples Received:	11/09/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

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Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

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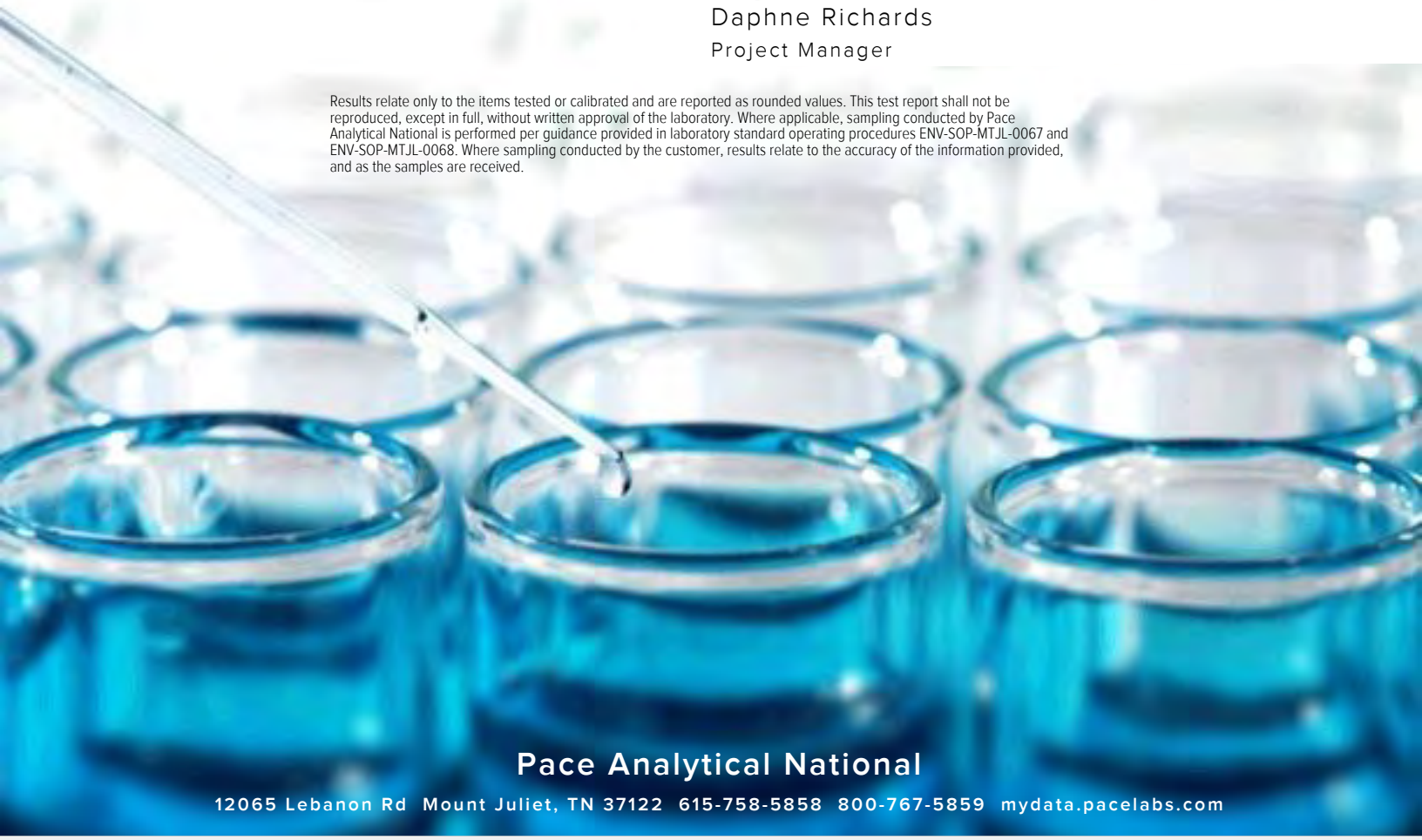

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CH-CCR-MW66A-1024 L1797996-01 WW

Collected by	Collected date/time	Received date/time
	11/04/24 11:22	11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399018	1	11/10/24 13:06	11/11/24 10:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2399358	1	11/11/24 13:21	11/11/24 13:21	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	10	11/15/24 17:14	11/15/24 17:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	50	11/15/24 17:28	11/15/24 17:28	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2400306	1	11/13/24 16:09	11/13/24 16:09	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2403942	1	11/18/24 22:30	11/18/24 22:30	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2399640	1	11/12/24 17:15	11/12/24 17:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2399059	1	11/12/24 11:00	11/12/24 19:22	ASH	Mt. Juliet, TN
Subcontracted Analyses	WG2400186	1	11/21/24 00:00	11/21/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M45A-1024 L1797996-02 WW

Collected by	Collected date/time	Received date/time
	11/04/24 12:57	11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399018	1	11/10/24 13:06	11/11/24 10:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	1	11/15/24 17:41	11/15/24 17:41	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	10	11/15/24 17:54	11/15/24 17:54	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	50	11/18/24 18:00	11/18/24 18:00	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2400231	1	11/12/24 21:20	11/12/24 21:20	KRB	Mt. Juliet, TN
Subcontracted Analyses	WG2400186	1	11/21/24 00:00	11/21/24 00:00	-	Minneapolis, MN 55414

CH-CCR-MW51A-1024 L1797996-03 WW

Collected by	Collected date/time	Received date/time
	11/06/24 13:15	11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399018	1	11/10/24 13:06	11/11/24 10:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2399358	1	11/11/24 13:25	11/11/24 13:25	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	10	11/15/24 18:35	11/15/24 18:35	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	50	11/15/24 18:48	11/15/24 18:48	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2400306	1	11/13/24 16:10	11/13/24 16:10	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2411421	1	12/04/24 15:36	12/04/24 15:36	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2399640	1	11/12/24 17:15	11/12/24 17:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2399059	1	11/12/24 11:00	11/12/24 19:35	ASH	Mt. Juliet, TN
Subcontracted Analyses	WG2400186	1	11/21/24 00:00	11/21/24 00:00	-	Minneapolis, MN 55414

CH-CCR-MW50A-1024 L1797996-04 WW

Collected by	Collected date/time	Received date/time
	11/06/24 14:11	11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399018	1	11/10/24 13:06	11/11/24 10:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2399358	1	11/11/24 13:29	11/11/24 13:29	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	10	11/15/24 19:01	11/15/24 19:01	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	50	11/15/24 19:15	11/15/24 19:15	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2400306	1	11/13/24 16:12	11/13/24 16:12	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2411421	1	12/04/24 15:38	12/04/24 15:38	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2399640	1	11/12/24 17:15	11/12/24 17:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2399059	1	11/12/24 11:00	11/12/24 19:49	ASH	Mt. Juliet, TN
Subcontracted Analyses	WG2400186	1	11/21/24 00:00	11/21/24 00:00	-	Minneapolis, MN 55414

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-W123R-1024 L1797996-05 WW

Collected by	Collected date/time	Received date/time
	11/06/24 15:07	11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399018	1	11/10/24 13:06	11/11/24 10:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2399358	1	11/11/24 13:33	11/11/24 13:33	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	10	11/15/24 19:28	11/15/24 19:28	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398794	100	11/15/24 19:42	11/15/24 19:42	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2400306	1	11/13/24 16:13	11/13/24 16:13	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2411421	1	12/04/24 15:39	12/04/24 15:39	LAS	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2399640	1	11/12/24 17:15	11/12/24 17:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2399059	1	11/12/24 11:00	11/12/24 20:03	ASH	Mt. Juliet, TN
Subcontracted Analyses	WG2400186	1	11/21/24 00:00	11/21/24 00:00	-	Minneapolis, MN 55414

CH-CCR-W125-1024 L1797996-06 WW

Collected by	Collected date/time	Received date/time
	11/06/24 16:05	11/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399018	1	11/10/24 13:06	11/11/24 10:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2399007	1	11/11/24 22:30	11/11/24 22:30	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2399007	10	11/13/24 01:07	11/13/24 01:07	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2400231	1	11/12/24 21:20	11/12/24 21:20	KRB	Mt. Juliet, TN
Subcontracted Analyses	WG2400186	1	11/21/24 00:00	11/21/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Report Revision History

Level II Report - Version 1: 11/26/24 17:34
Level II Report - Version 2: 12/12/24 13:21

Project Narrative

NO2NO3 added
L1797996 -01, -02, -03, -04, -05, -06 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	10500		200	1	11/11/2024 10:18	WG2399018

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	169		4.75	20.0	1	11/11/2024 13:21	WG2399358

Sample Narrative:

L1797996-01 WG2399358: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	3510		27.4	50.0	50	11/15/2024 17:28	WG2398794
Fluoride	1.26	E4	0.761	1.50	10	11/15/2024 17:14	WG2398794
Sulfate	3090		31.8	250	50	11/15/2024 17:28	WG2398794

Sample Narrative:

L1797996-01 WG2398794: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	0.0700	E4	0.0539	0.100	1	11/13/2024 16:09	WG2400306

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0435	0.200	1	11/18/2024 22:30	WG2403942

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.69	H3	1	11/12/2024 17:15	WG2399640

Sample Narrative:

L1797996-01 WG2399640: 7.69 at 18.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	2.98	H3	0.106	1.00	1	11/12/2024 19:22	WG2399059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	4910		100	1	11/11/2024 10:18	WG2399018

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	656		5.47	10.0	10	11/15/2024 17:54	WG2398794
Fluoride	0.527		0.0761	0.150	1	11/15/2024 17:41	WG2398794
Sulfate	2150		31.8	250	50	11/18/2024 18:00	WG2398794

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.57	H3	1	11/12/2024 21:20	WG2400231

Sample Narrative:

L1797996-02 WG2400231: 7.57 at 18.2C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	14000		400	1	11/11/2024 10:18	WG2399018

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	88.2		4.75	20.0	1	11/11/2024 13:25	WG2399358

Sample Narrative:
L1797996-03 WG2399358: Endpoint pH 4.5

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5690		27.4	50.0	50	11/15/2024 18:48	WG2398794
Fluoride	4.89		0.761	1.50	10	11/15/2024 18:35	WG2398794
Sulfate	2800		31.8	250	50	11/15/2024 18:48	WG2398794

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	0.126		0.0539	0.100	1	11/13/2024 16:10	WG2400306

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	0.0761	E4	0.0435	0.200	1	12/04/2024 15:36	WG2411421

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.58	H3	1	11/12/2024 17:15	WG2399640

Sample Narrative:
L1797996-03 WG2399640: 7.58 at 18.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	1.82	H3	0.106	1.00	1	11/12/2024 19:35	WG2399059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	7880		200	1	11/11/2024 10:18	WG2399018

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	159		4.75	20.0	1	11/11/2024 13:29	WG2399358

Sample Narrative:

L1797996-04 WG2399358: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1980		5.47	10.0	10	11/15/2024 19:01	WG2398794
Fluoride	2.13		0.761	1.50	10	11/15/2024 19:01	WG2398794
Sulfate	3010		31.8	250	50	11/15/2024 19:15	WG2398794

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	U		0.0539	0.100	1	11/13/2024 16:12	WG2400306

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0435	0.200	1	12/04/2024 15:38	WG2411421

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.75	H3	1	11/12/2024 17:15	WG2399640

Sample Narrative:

L1797996-04 WG2399640: 7.75 at 18.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	2.67	H3	0.106	1.00	1	11/12/2024 19:49	WG2399059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	18000		400	1	11/11/2024 10:18	WG2399018

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	57.4		4.75	20.0	1	11/11/2024 13:33	WG2399358

Sample Narrative:

L1797996-05 WG2399358: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	7120		54.7	100	100	11/15/2024 19:42	WG2398794
Fluoride	6.75		0.761	1.50	10	11/15/2024 19:28	WG2398794
Sulfate	3840		63.7	500	100	11/15/2024 19:42	WG2398794

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	1.63		0.0539	0.100	1	11/13/2024 16:13	WG2400306

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0435	0.200	1	12/04/2024 15:39	WG2411421

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.59	H3	1	11/12/2024 17:15	WG2399640

Sample Narrative:

L1797996-05 WG2399640: 7.59 at 18.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	2.82	H3	0.106	1.00	1	11/12/2024 20:03	WG2399059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1820		50.0	1	11/11/2024 10:18	WG2399018

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	695		5.47	10.0	10	11/13/2024 01:07	WG2399007
Fluoride	0.279		0.0761	0.150	1	11/11/2024 22:30	WG2399007
Sulfate	303		6.37	50.0	10	11/13/2024 01:07	WG2399007

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.96	H3	1	11/12/2024 21:20	WG2400231

Sample Narrative:

L1797996-06 WG2400231: 7.96 at 18.3C

Method Blank (MB)

(MB) R4145994-1 11/11/24 10:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1796724-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1796724-01 11/11/24 10:18 • (DUP) R4145994-3 11/11/24 10:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	56800	59500	1	4.64		10

L1798033-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1798033-08 11/11/24 10:18 • (DUP) R4145994-4 11/11/24 10:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	475	472	1	0.634		10

Laboratory Control Sample (LCS)

(LCS) R4145994-2 11/11/24 10:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	9000	102	85.0-115	

Method Blank (MB)

(MB) R4144621-2 11/11/24 12:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Bicarbonate	U		4.75	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1797821-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1797821-09 11/11/24 13:06 • (DUP) R4144621-4 11/11/24 13:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1798107-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1798107-02 11/11/24 15:00 • (DUP) R4144621-6 11/11/24 15:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4146990-1 11/15/24 12:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1797819-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797819-01 11/15/24 12:32 • (DUP) R4146990-3 11/15/24 12:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	4.72	4.74	1	0.366		15
Fluoride	0.705	0.738	1	4.52		15
Sulfate	1.63	1.78	1	8.76	E4	15

L1798191-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1798191-01 11/15/24 22:36 • (DUP) R4146990-6 11/15/24 22:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.61	1.38	1	15.2	R8	15
Fluoride	0.197	0.180	1	8.82		15
Sulfate	1.15	1.26	1	9.21	E4	15

Laboratory Control Sample (LCS)

(LCS) R4146990-2 11/15/24 12:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	37.2	93.0	90.0-110	
Fluoride	8.00	7.45	93.2	90.0-110	
Sulfate	40.0	37.5	93.7	90.0-110	

L1797819-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797819-01 11/15/24 12:32 • (MS) R4146990-4 11/15/24 12:59 • (MSD) R4146990-5 11/15/24 13:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	4.72	44.5	45.3	99.5	101	1	90.0-110			1.69	15
Fluoride	8.00	0.705	8.82	9.04	101	104	1	90.0-110			2.38	15
Sulfate	40.0	1.63	41.5	42.5	99.6	102	1	90.0-110			2.34	15

L1798191-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1798191-01 11/15/24 22:36 • (MS) R4146990-7 11/15/24 23:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	1.61	41.8	100	1	90.0-110	
Fluoride	8.00	0.197	8.53	104	1	90.0-110	
Sulfate	40.0	1.15	41.3	100	1	90.0-110	

Method Blank (MB)

(MB) R4145396-1 11/11/24 22:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1798028-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1798028-11 11/12/24 23:38 • (DUP) R4145413-1 11/12/24 23:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	12.9	12.9	1	0.188		15
Fluoride	0.393	0.466	1	17.2	R8	15
Sulfate	35.8	35.9	1	0.182		15

L1798028-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1798028-15 11/13/24 00:29 • (DUP) R4145413-4 11/13/24 00:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	19.4	19.4	1	0.0289		15
Fluoride	0.162	0.197	1	19.3	R8	15
Sulfate	24.5	24.5	1	0.131		15

Laboratory Control Sample (LCS)

(LCS) R4145396-2 11/11/24 22:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	36.9	92.2	90.0-110	
Fluoride	8.00	7.27	90.9	90.0-110	
Sulfate	40.0	37.3	93.3	90.0-110	

L1798028-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1798028-11 11/12/24 23:38 • (MS) R4145413-2 11/13/24 00:03 • (MSD) R4145413-3 11/13/24 00:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	12.9	50.1	48.4	93.1	88.9	1	90.0-110		M2	3.41	15
Fluoride	8.00	0.393	7.92	8.12	94.1	96.5	1	90.0-110			2.41	15
Sulfate	40.0	35.8	68.5	66.4	81.8	76.5	1	90.0-110	M2	M2	3.11	15

L1798028-15 Original Sample (OS) • Matrix Spike (MS)

(OS) L1798028-15 11/13/24 00:29 • (MS) R4145413-5 11/13/24 00:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	19.4	55.4	89.9	1	90.0-110	M2
Fluoride	8.00	0.162	7.65	93.5	1	90.0-110	
Sulfate	40.0	24.5	59.6	87.8	1	90.0-110	M2

Method Blank (MB)

(MB) R4145643-1 11/13/24 15:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ammonia Nitrogen	U		0.0539	0.100

L1797834-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797834-01 11/13/24 15:48 • (DUP) R4145643-3 11/13/24 15:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	U	U	1	0.000		10

L1797834-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1797834-02 11/13/24 15:54 • (DUP) R4145643-6 11/13/24 15:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	U	U	1	0.000		10

Laboratory Control Sample (LCS)

(LCS) R4145643-2 11/13/24 15:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	7.50	7.34	97.9	90.0-110	

L1797834-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797834-01 11/13/24 15:48 • (MS) R4145643-4 11/13/24 15:51 • (MSD) R4145643-5 11/13/24 15:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	U	4.92	4.80	98.5	95.9	1	90.0-110			2.63	10

L1797834-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1797834-02 11/13/24 15:54 • (MS) R4145643-7 11/13/24 15:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ammonia Nitrogen	5.00	U	5.11	102	1	90.0-110	

Method Blank (MB)

(MB) R4147506-1 11/18/24 22:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0435	0.200

L1797996-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797996-01 11/18/24 22:30 • (DUP) R4147506-3 11/18/24 22:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1800080-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800080-01 11/18/24 22:37 • (DUP) R4147506-6 11/18/24 22:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4147506-2 11/18/24 22:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.52	101	90.0-110	

L1797996-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797996-01 11/18/24 22:30 • (MS) R4147506-4 11/18/24 22:33 • (MSD) R4147506-5 11/18/24 22:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.52	2.41	101	96.4	1	90.0-110			4.46	20

L1800080-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800080-01 11/18/24 22:37 • (MS) R4147506-7 11/18/24 22:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.43	97.2	1	90.0-110	

Method Blank (MB)

(MB) R4153588-1 12/04/24 15:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0435	0.200

Method Blank (MB)

(MB) R4153588-8 12/10/24 10:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0435	0.200

L1804545-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1804545-02 12/04/24 15:41 • (DUP) R4153588-3 12/04/24 15:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.0984	0.0814	1	18.9	E4	20

L1804545-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1804545-04 12/04/24 15:44 • (DUP) R4153588-4 12/04/24 15:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.0822	0.0856	1	4.05	E4	20

Laboratory Control Sample (LCS)

(LCS) R4153588-2 12/04/24 15:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.72	109	90.0-110	

Laboratory Control Sample (LCS)

(LCS) R4153588-9 12/10/24 10:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.52	101	90.0-110	

L1804545-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1804545-05 12/04/24 15:50 • (MS) R4153588-5 12/04/24 15:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.64	106	1	90.0-110	

L1804545-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1804545-06 12/04/24 15:53 • (MS) R4153588-6 12/04/24 15:54 • (MSD) R4153588-7 12/04/24 15:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.141	2.70	2.72	102	103	1	90.0-110			0.738	20

L1797287-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797287-01 11/12/24 17:15 • (DUP) R4145154-2 11/12/24 17:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.65	5.64	1	0.177		1

Sample Narrative:

OS: 5.65 at 19.1C

DUP: 5.64 at 19C

L1798203-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1798203-01 11/12/24 17:15 • (DUP) R4145154-3 11/12/24 17:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.95	6.96	1	0.144		1

Sample Narrative:

OS: 6.95 at 18.8C

DUP: 6.96 at 18.9C

Laboratory Control Sample (LCS)

(LCS) R4145154-1 11/12/24 17:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 19.8C

L1796677-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1796677-02 11/12/24 21:20 • (DUP) R4145187-2 11/12/24 21:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.62	7.63	1	0.131		1

Sample Narrative:

OS: 7.62 at 18.4C

DUP: 7.63 at 18.4C

L1798437-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1798437-04 11/12/24 21:20 • (DUP) R4145187-3 11/12/24 21:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
		su		%		%
pH	7.79	7.80	1	0.128		1

Sample Narrative:

OS: 7.79 at 19.1C

DUP: 7.8 at 19.2C

Laboratory Control Sample (LCS)

(LCS) R4145187-1 11/12/24 21:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 19.3C

Method Blank (MB)

(MB) R4145242-2 11/12/24 12:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
DOC	U		0.106	1.00

L1797429-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1797429-04 11/12/24 15:36 • (DUP) R4145242-5 11/12/24 15:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	3.94	3.83	1	2.80		20

L1797429-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1797429-11 11/12/24 18:32 • (DUP) R4145242-8 11/12/24 18:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	2.08	2.05	1	1.65		20

Laboratory Control Sample (LCS)

(LCS) R4145242-1 11/12/24 12:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
DOC	25.0	24.3	97.0	85.0-115	

L1797429-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797429-03 11/12/24 14:48 • (MS) R4145242-3 11/12/24 15:05 • (MSD) R4145242-4 11/12/24 15:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25.0	4.01	28.2	28.1	96.9	96.4	1	80.0-120			0.497	20

L1797429-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797429-09 11/12/24 17:45 • (MS) R4145242-6 11/12/24 18:02 • (MSD) R4145242-7 11/12/24 18:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25.0	3.98	28.8	28.2	99.4	96.9	1	80.0-120			2.17	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk: N V

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com;natalie.chrismanlaz**

Project Description: **APS-Cholla**

City/State Collected: Joseph City, AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #: **AMECTAZ-APSCHOLLA**

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #: **P104414US024**

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NO2NO3 250mlHDPE-H2SO4	Sulfate 250mlHDPE-NoPres	TDS 1L-HDPE-NoPres	TOC 250mlAmb-HCl	pH 250mlHDPE-NoPres					Remarks	Sample # (lab only)
CH-CCR-MW66A-1024		WW		11-4-24	1122	10		X	X		X						-01
CH-CCR-M45A-1024		WW		↓	1257	4		X	X		X						-02
CH-CCR-M51A-1024		WW		11-6-24	1315	10		X	X		X						-03
CH-CCR-M50A-1024		WW			1411	10		X	X		X						-04
CH-CCR-W123R-1024		WW			1507	10		X	X		X						-05
CH-CCR-W125-1024		WW		↓	1605	4		X	X		X						-06
		WW															
		WW															
		WW															
		WW															

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1707990
K191

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co
(1 Co)

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR	If preservation required by Login: Date/Time
[signature]	11/08/24	13:55	[signature]		
[signature]	11/08/24	1800	Fed EX	Temp: °C Bottles Received: 48	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11-09-24 Time: 0900	Hold: / Condition: NCF / OK

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City, AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #
P104414US024

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1797990

Table #

Acctnum: **AMECTAZ**
Template: **T261974**
Prelogin: **P1107670**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	200.7 Diss Metals FF 250mlHDPE-HNO3 (Field Filter)	200.7 Total Metals 250mlHDPE-HNO3	200.8 Diss Metals FF 250mlHDPE-HNO3 (Field Filter)	200.8 Total Metals 250mlHDPE-HNO3	ALKCA, ALKOH 125mlHDPE-NoPres (ALK HCO3)	Chloride 250mlHDPE-NoPres	DOC 250mlAmb-No Pres (Field Filter)	Fluoride 250mlHDPE-NoPres	Hg 250mlHDPE-HNO3	NH3 250mlHDPENaThioH2SO4	Remarks	Sample # (lab only)
CH-CCR-MW66A-1024		WW		11-4-24	1122		X	X	X	X	X	X	X	X	X	X		01
CH-CCR-M45A-1024		WW		↓	1257			X		X		X		X	X			02
CH-CCR-M51A-1024		WW		11-6-24	1315		X	X	X	X	X	X	X	X	X	X		03
CH-CCR-M50A-1024		WW			1411		X	X	X	X	X	X	X	X	X	X		04
CH-CCR-W123R-1024		WW			1507		X	X	X	X	X	X	X	X	X	X		05
CH-CCR-W125-1024		WW		↓	1605		BH X	X		X		X		X	X			06
		WW																
		WW																
		WW																
		WW																

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co
↑ Co
M45A & W125: 200.7 - Total B, Ca, Be, Li only

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	11/08/24	13:58			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
	11/8/24	1800	Fed EX		
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK
				11/09/24 0900	

Fed Ex tracking #	Gun ID	Temperature
7315 3193 6886	TLA9	2.3+0=2.3
4171 6908 1175	TLA9	0.5+0=0.5

Name

Date

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 12, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1797996 WG2400186
Pace Project No.: 10715534

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on December 10, 2024, to update sample ID and adjust the analyte list for method 200.7 and 200.8 for Pace all samples.

This report was further revised on December 12, 2024, to update sample ID and adjust the analyte list for method 200.7 and 200.8 for Pace all samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1797996 WG2400186
Pace Project No.: 10715534

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1797996 WG2400186
Pace Project No.: 10715534

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10715534001	**CH-CCR-MW66A-1024**	Water	11/04/24 11:22	11/13/24 08:50
10715534002	**CH-CCR-M45A-1024**	Water	11/04/24 12:57	11/13/24 08:50
10715534003	**CH-CCR-MW51A-1024**	Water	11/06/24 13:15	11/13/24 08:50
10715534004	**CH-CCR-MW50A-1024**	Water	11/06/24 14:11	11/13/24 08:50
10715534005	**CH-CCR-W123R-1024**	Water	11/06/24 15:07	11/13/24 08:50
10715534006	**CH-CCR-W125-1024**	Water	11/06/24 16:05	11/13/24 08:50

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1797996 WG2400186
Pace Project No.: 10715534

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10715534001	**CH-CCR-MW66A-1024**	EPA 200.7	DM	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	NN2	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715534002	**CH-CCR-M45A-1024**	EPA 200.7	DM	3	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715534003	**CH-CCR-MW51A-1024**	EPA 200.7	DM	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	NN2	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715534004	**CH-CCR-MW50A-1024**	EPA 200.7	DM	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	NN2	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715534005	**CH-CCR-W123R-1024**	EPA 200.7	DM	8	PASI-M
		EPA 200.7	IP	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	NN2	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10715534006	**CH-CCR-W125-1024**	EPA 200.7	DM	3	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1797996 WG2400186
Pace Project No.: 10715534

Sample: CH-CCR-MW66A-1024 **Lab ID: 10715534001** Collected: 11/04/24 11:22 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/14/24 13:04	11/20/24 11:34	7440-41-7	
Boron	**1850**	ug/L	150	16.0	1	11/14/24 13:04	11/20/24 11:34	7440-42-8	
Calcium	**611000**	ug/L	500	31.8	1	11/14/24 13:04	11/20/24 11:34	7440-70-2	
Iron	**1210**	ug/L	50.0	7.5	1	11/14/24 13:04	11/20/24 11:34	7439-89-6	
Magnesium	**236000**	ug/L	500	28.9	1	11/14/24 13:04	11/20/24 11:34	7439-95-4	
Manganese	**3060**	ug/L	5.0	0.50	1	11/14/24 13:04	11/20/24 11:34	7439-96-5	
Potassium	**11300**	ug/L	2500	108	1	11/14/24 13:04	11/20/24 11:34	7440-09-7	
Sodium	**2180000**	ug/L	25000	1140	25	11/14/24 13:04	11/20/24 11:54	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**35.6J**	ug/L	50.0	7.5	1	11/15/24 10:01	11/19/24 15:50	7439-89-6	
Manganese, Dissolved	**3050**	ug/L	5.0	0.50	1	11/15/24 10:01	11/19/24 15:50	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:01	7440-36-0	D3
Arsenic	**1.8J**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:01	7440-38-2	D3
Barium	**16.7**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:01	7440-39-3	
Cadmium	**0.23J**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:01	7440-43-9	D3
Chromium	**12.8**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:01	7440-47-3	
Cobalt	**1.4J**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:01	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:01	7439-92-1	D3
Lithium	**462**	ug/L	25.0	10.2	50	11/14/24 12:58	12/05/24 13:26	7439-93-2	
Molybdenum	**16.6**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:01	7439-98-7	
Selenium	**6.2**	ug/L	2.5	0.37	5	11/14/24 12:58	11/15/24 17:01	7782-49-2	
Thallium	**0.36J**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:01	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**0.53**	ug/L	0.50	0.12	1	11/14/24 12:58	11/15/24 15:28	7440-38-2	
Cobalt, Dissolved	**0.86**	ug/L	0.50	0.095	1	11/14/24 12:58	11/15/24 15:28	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/14/24 14:21	11/21/24 10:39	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1797996 WG2400186
Pace Project No.: 10715534

Sample: CH-CCR-M45A-1024 **Lab ID: 10715534002** Collected: 11/04/24 12:57 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/14/24 13:04	11/20/24 11:35	7440-41-7	
Boron	**993**	ug/L	150	16.0	1	11/14/24 13:04	11/20/24 11:35	7440-42-8	
Calcium	**548000**	ug/L	500	31.8	1	11/14/24 13:04	11/20/24 11:35	7440-70-2	P6
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:12	7440-36-0	D3
Arsenic	**2.1J**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:12	7440-38-2	D3
Barium	**14.3**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:12	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:12	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:12	7440-47-3	D3
Cobalt	**0.94J**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:12	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:12	7439-92-1	D3
Lithium	**194**	ug/L	25.0	10.2	50	11/14/24 12:58	12/05/24 13:38	7439-93-2	
Molybdenum	**3.1**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:12	7439-98-7	
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/14/24 12:58	11/15/24 17:12	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:12	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/14/24 14:21	11/21/24 10:40	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1797996 WG2400186
Pace Project No.: 10715534

Sample: CH-CCR-MW51A-1024 **Lab ID: 10715534003** Collected: 11/06/24 13:15 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/14/24 13:04	11/20/24 11:40	7440-41-7	
Boron	**29000**	ug/L	750	80.0	5	11/14/24 13:04	11/20/24 12:04	7440-42-8	
Calcium	**812000**	ug/L	500	31.8	1	11/14/24 13:04	11/20/24 11:40	7440-70-2	
Iron	**30.9J**	ug/L	50.0	7.5	1	11/14/24 13:04	11/20/24 11:40	7439-89-6	
Magnesium	**274000**	ug/L	500	28.9	1	11/14/24 13:04	11/20/24 11:40	7439-95-4	
Manganese	**1930**	ug/L	5.0	0.50	1	11/14/24 13:04	11/20/24 11:40	7439-96-5	
Potassium	**38700**	ug/L	2500	108	1	11/14/24 13:04	11/20/24 11:40	7440-09-7	
Sodium	**3170000**	ug/L	50000	2270	50	11/14/24 13:04	11/20/24 12:06	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**19.3J**	ug/L	50.0	7.5	1	11/15/24 10:01	11/19/24 15:53	7439-89-6	
Manganese, Dissolved	**1930**	ug/L	5.0	0.50	1	11/15/24 10:01	11/19/24 15:53	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:15	7440-36-0	D3
Arsenic	**28.1**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:15	7440-38-2	
Barium	**8.3**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:15	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:15	7440-43-9	D3
Chromium	**5.8J**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:15	7440-47-3	D3
Cobalt	**3.8**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:15	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:15	7439-92-1	D3
Lithium	**427**	ug/L	50.0	20.5	100	11/14/24 12:58	12/05/24 13:41	7439-93-2	
Molybdenum	**96.6**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:15	7439-98-7	
Selenium	**0.56J**	ug/L	2.5	0.37	5	11/14/24 12:58	11/15/24 17:15	7782-49-2	D3
Thallium	**0.23J**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:15	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**18.0**	ug/L	0.50	0.12	1	11/14/24 12:58	11/15/24 15:41	7440-38-2	
Cobalt, Dissolved	**2.4**	ug/L	0.50	0.095	1	11/14/24 12:58	11/15/24 15:41	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/14/24 14:21	11/21/24 10:42	7439-97-6	

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ANALYTICAL RESULTS

Project: L1797996 WG2400186
Pace Project No.: 10715534

Sample: CH-CCR-MW50A-1024 **Lab ID: 10715534004** Collected: 11/06/24 14:11 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/14/24 13:04	11/20/24 11:42	7440-41-7	
Boron	**2890**	ug/L	150	16.0	1	11/14/24 13:04	11/20/24 11:42	7440-42-8	
Calcium	**531000**	ug/L	500	31.8	1	11/14/24 13:04	11/20/24 11:42	7440-70-2	
Iron	**52.7**	ug/L	50.0	7.5	1	11/14/24 13:04	11/20/24 11:42	7439-89-6	
Magnesium	**185000**	ug/L	500	28.9	1	11/14/24 13:04	11/20/24 11:42	7439-95-4	
Manganese	**327**	ug/L	5.0	0.50	1	11/14/24 13:04	11/20/24 11:42	7439-96-5	
Potassium	**10600**	ug/L	2500	108	1	11/14/24 13:04	11/20/24 11:42	7440-09-7	
Sodium	**1470000**	ug/L	10000	454	10	11/14/24 13:04	11/20/24 12:07	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Iron, Dissolved	**43.0J**	ug/L	50.0	7.5	1	11/15/24 10:01	11/19/24 15:58	7439-89-6	
Manganese, Dissolved	**332**	ug/L	5.0	0.50	1	11/15/24 10:01	11/19/24 15:58	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:17	7440-36-0	D3
Arsenic	**3.3**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:17	7440-38-2	
Barium	**8.7**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:17	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:17	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:17	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:17	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:17	7439-92-1	D3
Lithium	**396**	ug/L	25.0	10.2	50	11/14/24 12:58	12/05/24 13:44	7439-93-2	
Molybdenum	**9.2**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:17	7439-98-7	
Selenium	**0.82J**	ug/L	2.5	0.37	5	11/14/24 12:58	11/15/24 17:17	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:17	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**3.1**	ug/L	0.50	0.12	1	11/14/24 12:58	11/15/24 15:44	7440-38-2	
Cobalt, Dissolved	**0.41J**	ug/L	0.50	0.095	1	11/14/24 12:58	11/15/24 15:44	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/14/24 14:21	11/21/24 10:46	7439-97-6	

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ANALYTICAL RESULTS

Project: L1797996 WG2400186
Pace Project No.: 10715534

Sample: CH-CCR-W123R-1024 **Lab ID: 10715534005** Collected: 11/06/24 15:07 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/14/24 13:04	11/20/24 11:47	7440-41-7	
Boron	**47000**	ug/L	750	80.0	5	11/14/24 13:04	11/20/24 12:13	7440-42-8	
Calcium	**687000**	ug/L	500	31.8	1	11/14/24 13:04	11/20/24 11:47	7440-70-2	
Iron	**8.4J**	ug/L	50.0	7.5	1	11/14/24 13:04	11/20/24 11:47	7439-89-6	
Magnesium	**415000**	ug/L	500	28.9	1	11/14/24 13:04	11/20/24 11:47	7439-95-4	
Manganese	**4420**	ug/L	10.0	1.0	2	11/14/24 13:04	11/20/24 12:19	7439-96-5	
Potassium	**51500**	ug/L	2500	108	1	11/14/24 13:04	11/20/24 11:47	7440-09-7	
Sodium	**4100000**	ug/L	50000	2270	50	11/14/24 13:04	11/20/24 12:21	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**10.0J**	ug/L	50.0	7.5	1	11/15/24 10:01	11/19/24 16:00	7439-89-6	
Manganese, Dissolved	**4700**	ug/L	5.0	0.50	1	11/15/24 10:01	11/19/24 16:00	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:26	7440-36-0	D3
Arsenic	**5.3**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:26	7440-38-2	D3
Barium	**12.2**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:26	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:26	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:26	7440-47-3	D3
Cobalt	**5.8**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:26	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:26	7439-92-1	D3
Lithium	**553**	ug/L	50.0	20.5	100	11/14/24 12:58	12/05/24 13:52	7439-93-2	
Molybdenum	**60.7**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:26	7439-98-7	
Selenium	**1.2J**	ug/L	2.5	0.37	5	11/14/24 12:58	11/18/24 10:23	7782-49-2	D3
Thallium	**0.34J**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:26	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**4.7**	ug/L	0.50	0.12	1	11/14/24 12:58	11/15/24 15:47	7440-38-2	
Cobalt, Dissolved	**5.0**	ug/L	0.50	0.095	1	11/14/24 12:58	11/15/24 15:47	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/14/24 14:21	11/21/24 10:47	7439-97-6	

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ANALYTICAL RESULTS

Project: L1797996 WG2400186
Pace Project No.: 10715534

Sample: CH-CCR-W125-1024 **Lab ID: 10715534006** Collected: 11/06/24 16:05 Received: 11/13/24 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/14/24 13:04	11/20/24 11:49	7440-41-7	
Boron	**178**	ug/L	150	16.0	1	11/14/24 13:04	11/20/24 11:49	7440-42-8	
Calcium	**102000**	ug/L	500	31.8	1	11/14/24 13:04	11/20/24 11:49	7440-70-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/14/24 12:58	11/15/24 17:29	7440-36-0	D3
Arsenic	**3.6**	ug/L	2.5	0.61	5	11/14/24 12:58	11/15/24 17:29	7440-38-2	
Barium	**20.0**	ug/L	1.5	0.35	5	11/14/24 12:58	11/15/24 17:29	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/14/24 12:58	11/15/24 17:29	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/14/24 12:58	11/15/24 17:29	7440-47-3	D3
Cobalt	**0.90J**	ug/L	2.5	0.48	5	11/14/24 12:58	11/15/24 17:29	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/14/24 12:58	11/15/24 17:29	7439-92-1	D3
Lithium	**28.2**	ug/L	2.5	1.0	5	11/14/24 12:58	12/05/24 13:55	7439-93-2	
Molybdenum	**2.5J**	ug/L	2.5	0.63	5	11/14/24 12:58	11/15/24 17:29	7439-98-7	D3
Selenium	**<0.37**	ug/L	2.5	0.37	5	11/14/24 12:58	11/18/24 10:26	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/14/24 12:58	11/15/24 17:29	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/14/24 14:21	11/21/24 10:49	7439-97-6	

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QUALITY CONTROL DATA

Project: L1797996 WG2400186
Pace Project No.: 10715534

QC Batch: 979756 | Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 | Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715534001, 10715534002, 10715534003, 10715534004, 10715534005, 10715534006

METHOD BLANK: 5118956 Matrix: Water
Associated Lab Samples: 10715534001, 10715534002, 10715534003, 10715534004, 10715534005, 10715534006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/21/24 10:36	

LABORATORY CONTROL SAMPLE: 5118957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.3	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5118958 5118959

Parameter	Units	10715534003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.9	4.9	97	98	70-130	1	20	

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QUALITY CONTROL DATA

Project: L1797996 WG2400186
Pace Project No.: 10715534

QC Batch: 979755
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715534001, 10715534002, 10715534003, 10715534004, 10715534005, 10715534006

METHOD BLANK: 5118952 Matrix: Water
Associated Lab Samples: 10715534001, 10715534002, 10715534003, 10715534004, 10715534005, 10715534006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/20/24 11:30	
Boron	ug/L	<16.0	150	16.0	11/20/24 11:30	
Calcium	ug/L	<31.8	500	31.8	11/20/24 11:30	
Iron	ug/L	<7.5	50.0	7.5	11/20/24 11:30	
Magnesium	ug/L	<28.9	500	28.9	11/20/24 11:30	
Manganese	ug/L	<0.50	5.0	0.50	11/20/24 11:30	
Potassium	ug/L	<108	2500	108	11/20/24 11:30	
Sodium	ug/L	<45.4	1000	45.4	11/20/24 11:30	

LABORATORY CONTROL SAMPLE: 5118953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1020	102	85-115	
Boron	ug/L	1000	1000	100	85-115	
Calcium	ug/L	20000	19000	95	85-115	
Iron	ug/L	20000	19800	99	85-115	
Magnesium	ug/L	20000	19200	96	85-115	
Manganese	ug/L	1000	997	100	85-115	
Potassium	ug/L	20000	19600	98	85-115	
Sodium	ug/L	20000	19600	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5118954 5118955

Parameter	Units	10715534002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1090	1110	109	111	70-130	1	20	
Boron	ug/L	993	1000	1000	2130	2130	114	114	70-130	0	20	
Calcium	ug/L	548000	20000	20000	584000	577000	175	145	70-130	1	20	P6
Iron	ug/L		20000	20000	25900	26000	101	102	70-130	1	20	
Magnesium	ug/L		20000	20000	139000	138000	123	115	70-130	1	20	
Manganese	ug/L		1000	1000	1940	1940	102	102	70-130	0	20	
Potassium	ug/L		20000	20000	39200	39300	126	127	70-130	0	20	
Sodium	ug/L		20000	20000	668000	665000	126	111	70-130	0	20	

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QUALITY CONTROL DATA

Project: L1797996 WG2400186
Pace Project No.: 10715534

QC Batch: 979883
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715534001, 10715534003, 10715534004, 10715534005

METHOD BLANK: 5119826 Matrix: Water
Associated Lab Samples: 10715534001, 10715534003, 10715534004, 10715534005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<7.5	50.0	7.5	11/19/24 15:47	
Manganese, Dissolved	ug/L	<0.50	5.0	0.50	11/19/24 15:47	

LABORATORY CONTROL SAMPLE: 5119827

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	20000	19700	99	85-115	
Manganese, Dissolved	ug/L	1000	1020	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5119828 5119829

Parameter	Units	10715534003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	19.3J	20000	20000	19400	19000	97	95	70-130	2	20	
Manganese, Dissolved	ug/L	1930	1000	1000	2940	2880	101	95	70-130	2	20	

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QUALITY CONTROL DATA

Project: L1797996 WG2400186
Pace Project No.: 10715534

QC Batch: 979753
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715534001, 10715534002, 10715534003, 10715534004, 10715534005, 10715534006

METHOD BLANK: 5118943 Matrix: Water
Associated Lab Samples: 10715534001, 10715534002, 10715534003, 10715534004, 10715534005, 10715534006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/15/24 16:55	
Arsenic	ug/L	<0.12	0.50	0.12	11/15/24 16:55	
Barium	ug/L	<0.070	0.30	0.070	11/15/24 16:55	
Cadmium	ug/L	<0.030	0.080	0.030	11/15/24 16:55	
Chromium	ug/L	<0.54	2.0	0.54	11/15/24 16:55	
Cobalt	ug/L	<0.095	0.50	0.095	11/15/24 16:55	
Lead	ug/L	<0.18	0.50	0.18	11/15/24 16:55	
Lithium	ug/L	<0.20	0.50	0.20	12/05/24 13:21	
Molybdenum	ug/L	<0.13	0.50	0.13	11/15/24 16:55	
Selenium	ug/L	<0.074	0.50	0.074	11/15/24 16:55	
Thallium	ug/L	<0.026	0.10	0.026	11/15/24 16:55	

LABORATORY CONTROL SAMPLE: 5118944

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	105	105	85-115	
Arsenic	ug/L	100	101	101	85-115	
Barium	ug/L	100	108	108	85-115	
Cadmium	ug/L	100	105	105	85-115	
Chromium	ug/L	100	105	105	85-115	
Cobalt	ug/L	100	110	110	85-115	
Lead	ug/L	100	107	107	85-115	
Lithium	ug/L	100	114	114	85-115	
Molybdenum	ug/L	100	109	109	85-115	
Selenium	ug/L	100	108	108	85-115	
Thallium	ug/L	100	106	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5118945 5118946

Parameter	Units	10715534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.44	100	100	105	104	105	104	70-130	1	20	
Arsenic	ug/L	1.8J	100	100	106	105	104	103	70-130	1	20	
Barium	ug/L	16.7	100	100	125	123	109	107	70-130	2	20	
Cadmium	ug/L	0.23J	100	100	101	97.9	101	98	70-130	3	20	
Chromium	ug/L	12.8	100	100	114	112	101	99	70-130	2	20	
Cobalt	ug/L	1.4J	100	100	108	106	106	105	70-130	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1797996 WG2400186
Pace Project No.: 10715534

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5118945 5118946

Parameter	Units	10715534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	<0.90	100	100	105	104	104	104	70-130	1	20	
Lithium	ug/L	462	100	100	588	580	126	118	70-130	1	20	
Molybdenum	ug/L	16.6	100	100	128	127	111	110	70-130	1	20	
Selenium	ug/L	6.2	100	100	108	110	101	104	70-130	2	20	
Thallium	ug/L	0.36J	100	100	105	105	105	105	70-130	0	20	

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1797996 WG2400186
Pace Project No.: 10715534

QC Batch: 979754
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10715534001, 10715534003, 10715534004, 10715534005

METHOD BLANK: 5118947 Matrix: Water
Associated Lab Samples: 10715534001, 10715534003, 10715534004, 10715534005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<0.12	0.50	0.12	11/15/24 15:23	
Cobalt, Dissolved	ug/L	<0.095	0.50	0.095	11/15/24 15:23	

LABORATORY CONTROL SAMPLE: 5118948

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	99.5	99	85-115	
Cobalt, Dissolved	ug/L	100	109	109	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5118949 5118950

Parameter	Units	10715534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	0.53	100	100	103	105	103	104	70-130	2	20	
Cobalt, Dissolved	ug/L	0.86	100	100	103	103	102	102	70-130	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1797996 WG2400186
Pace Project No.: 10715534

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1797996 WG2400186
Pace Project No.: 10715534

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10715534001	**CH-CCR-MW66A-1024**	EPA 200.7	979755	EPA 200.7	979886
10715534002	**CH-CCR-M45A-1024**	EPA 200.7	979755	EPA 200.7	979886
10715534003	**CH-CCR-MW51A-1024**	EPA 200.7	979755	EPA 200.7	979886
10715534004	**CH-CCR-MW50A-1024**	EPA 200.7	979755	EPA 200.7	979886
10715534005	**CH-CCR-W123R-1024**	EPA 200.7	979755	EPA 200.7	979886
10715534006	**CH-CCR-W125-1024**	EPA 200.7	979755	EPA 200.7	979886
10715534001	**CH-CCR-MW66A-1024**	EPA 200.7	979883	EPA 200.7	980085
10715534003	**CH-CCR-MW51A-1024**	EPA 200.7	979883	EPA 200.7	980085
10715534004	**CH-CCR-MW50A-1024**	EPA 200.7	979883	EPA 200.7	980085
10715534005	**CH-CCR-W123R-1024**	EPA 200.7	979883	EPA 200.7	980085
10715534001	**CH-CCR-MW66A-1024**	EPA 200.8	979753	EPA 200.8	979916
10715534002	**CH-CCR-M45A-1024**	EPA 200.8	979753	EPA 200.8	979916
10715534003	**CH-CCR-MW51A-1024**	EPA 200.8	979753	EPA 200.8	979916
10715534004	**CH-CCR-MW50A-1024**	EPA 200.8	979753	EPA 200.8	979916
10715534005	**CH-CCR-W123R-1024**	EPA 200.8	979753	EPA 200.8	979916
10715534006	**CH-CCR-W125-1024**	EPA 200.8	979753	EPA 200.8	979916
10715534001	**CH-CCR-MW66A-1024**	EPA 200.8	979754	EPA 200.8	979915
10715534003	**CH-CCR-MW51A-1024**	EPA 200.8	979754	EPA 200.8	979915
10715534004	**CH-CCR-MW50A-1024**	EPA 200.8	979754	EPA 200.8	979915
10715534005	**CH-CCR-W123R-1024**	EPA 200.8	979754	EPA 200.8	979915
10715534001	**CH-CCR-MW66A-1024**	EPA 245.1	979756	EPA 245.1	980223
10715534002	**CH-CCR-M45A-1024**	EPA 245.1	979756	EPA 245.1	980223
10715534003	**CH-CCR-MW51A-1024**	EPA 245.1	979756	EPA 245.1	980223
10715534004	**CH-CCR-MW50A-1024**	EPA 245.1	979756	EPA 245.1	980223
10715534005	**CH-CCR-W123R-1024**	EPA 245.1	979756	EPA 245.1	980223
10715534006	**CH-CCR-W125-1024**	EPA 245.1	979756	EPA 245.1	980223

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Sub-Contract Chain of Custody

Batch Date/Time: 11/12/24 14:03
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2400186
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 11/25/24
ESC Purchase Order #: L1797996
Send Reports to: James C Huckaba

Pace Analytical

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

WO# : 10715534

10715534

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only	
CH-CCR-MW66A-1024 250mlHDPE HNO3 - 49978723 250mlHDPE HNO3 - 49978724 250mlHDPE HNO3 - 49978725 250mlHDPE HNO3 - 49978726	WW	AZ	11/04/24 11:22	Metals	1. L1797996-01	Hg, 200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na, Dissolved Fe and Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As and Co, MATRIXGAZ EDD and MDLRDL	01
CH-CCR-MW45A-1024 250mlHDPE-HNO3 - 49978779 250mlHDPE-HNO3 - 49978781	WW	AZ	11/04/24 12:57	Metals	2. L1797996-02	Hg, 200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na, Dissolved Fe and Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As and Co, MATRIXGAZ EDD and MDLRDL	02
CH-CCR-MW51A-1024 250mlHDPE HNO3 - 49978788 250mlHDPE HNO3 - 49978789 250mlHDPE HNO3 - 49978790 250mlHDPE HNO3 - 49978791	WW	AZ	11/06/24 13:15	Metals	3. L1797996-03	Hg, 200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na, Dissolved Fe and Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As and Co, MATRIXGAZ EDD and MDLRDL	03
CH-CCR-MW50A-1024 250mlHDPE HNO3 - 49978798 250mlHDPE HNO3 - 49978799 250mlHDPE HNO3 - 49978800 250mlHDPE HNO3 - 49978801	WW	AZ	11/06/24 14:11	Metals	4. L1797996-04	Hg, 200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na, Dissolved Fe and Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As and Co, MATRIXGAZ EDD and MDLRDL	04
CH-CCR-W123R-1024 250mlHDPE HNO3 - 49978808 250mlHDPE HNO3 - 49978809 250mlHDPE HNO3 - 49978810 250mlHDPE HNO3 - 49978811	WW	AZ	11/06/24 15:07	Metals	5. L1797996-05	Hg, 200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na, Dissolved Fe and Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As and Co, MATRIXGAZ EDD and MDLRDL	05
CH-CCR-W125-1024 250mlHDPE-HNO3 - 49978813 250mlHDPE-HNO3 - 49978815	WW	AZ	11/06/24 16:05	Metals	6. L1797996-06	Hg, 200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na, Dissolved Fe and Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As and Co, MATRIXGAZ EDD and MDLRDL	06

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ Date 11-12-24

Received by: _____ Date 11/13/24 850

Relinquished by: _____ Date _____

Received by: _____ Date _____

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace National **PROJECT #:** **WO#: 10715534**

PM: TKL Due Date: 11/27/24
CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 4041044934293 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☑ YES ☐ NO **Type of Ice:** ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☑ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: -0.4 **Cooler Temp Read w/Temp Blank:** 0.4 °C **Cooler Temp Corrected w/Temp Blank:** 0.2 °C	**Average Corrected Temp (no Temp Blank Only):** _____ °C
NOTE: *Temp should be above freezing to 6°C.*	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): _____	**Initials & Date of Person Examining Contents:** JMW 11/13/24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☑ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☑ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA

	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☐	☑	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☐	☐ ☑	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests? NELM 11/13/24	☑	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☑ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☑	☐	☐	12. Sample #: 001: 4/4, 002: 3/2, 003: 4/4, 004: 4/4, 005: 4/4, 006: 2/2
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☑	☐	☐	☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #**

Residual Chlorine	0-6 Roll	0-6 Strip	0-14 Strip
	205724		

☐ See Exceptions form ENV-FRM-MIN4-0142

Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☑	☐	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ **Date:** 11/14/24

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: JMW **Line:** 3

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1797996	Pace Quote:	
Phone:	(615) 773-9756 Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	25-Nov	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	**SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals	Metals											Residual Chlorine (Y/N)	
																		Requested Analysis Filtered (Y/N)												
1	CH-CCR-MW66A-1024	WT				04-Nov	11:22		4			4								X										Hg, 200.7 B, Ca, Be, Li, Fe, Mn,
2	CH-CCR-MW45A-1024	WT				04-Nov	12:57		2			2							X											Hg, 200.7 B, Ca, Be, Li, Fe, Mn,
3	CH-CCR-MW51A-1024	WT				06-Nov	13:15		4			4								X										Hg, 200.7 B, Ca, Be, Li, Fe, Mn,
4	CH-CCR-MW50A-1024	WT				06-Nov	14:11		4			4								X										Hg, 200.7 B, Ca, Be, Li, Fe, Mn,
5	CH-CCR-W123R-1024	WT				06-Nov	15:07		4			4								X										Hg, 200.7 B, Ca, Be, Li, Fe, Mn,
6	CH-CCR-W125-1024	WT				06-Nov	16:05		2			2							X											Hg, 200.7 B, Ca, Be, Li, Fe, Mn,
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	James C Huckaba	14-Nov	9:40							
Pace Analytical Batch: WG2400186										
Pace Analytical SDGs: L1797996										
Location: Minneapolis, MN 55414										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:						
SIGNATURE of SAMPLER:	**DATE Signed:**					

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

ANALYTICAL REPORT

December 13, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

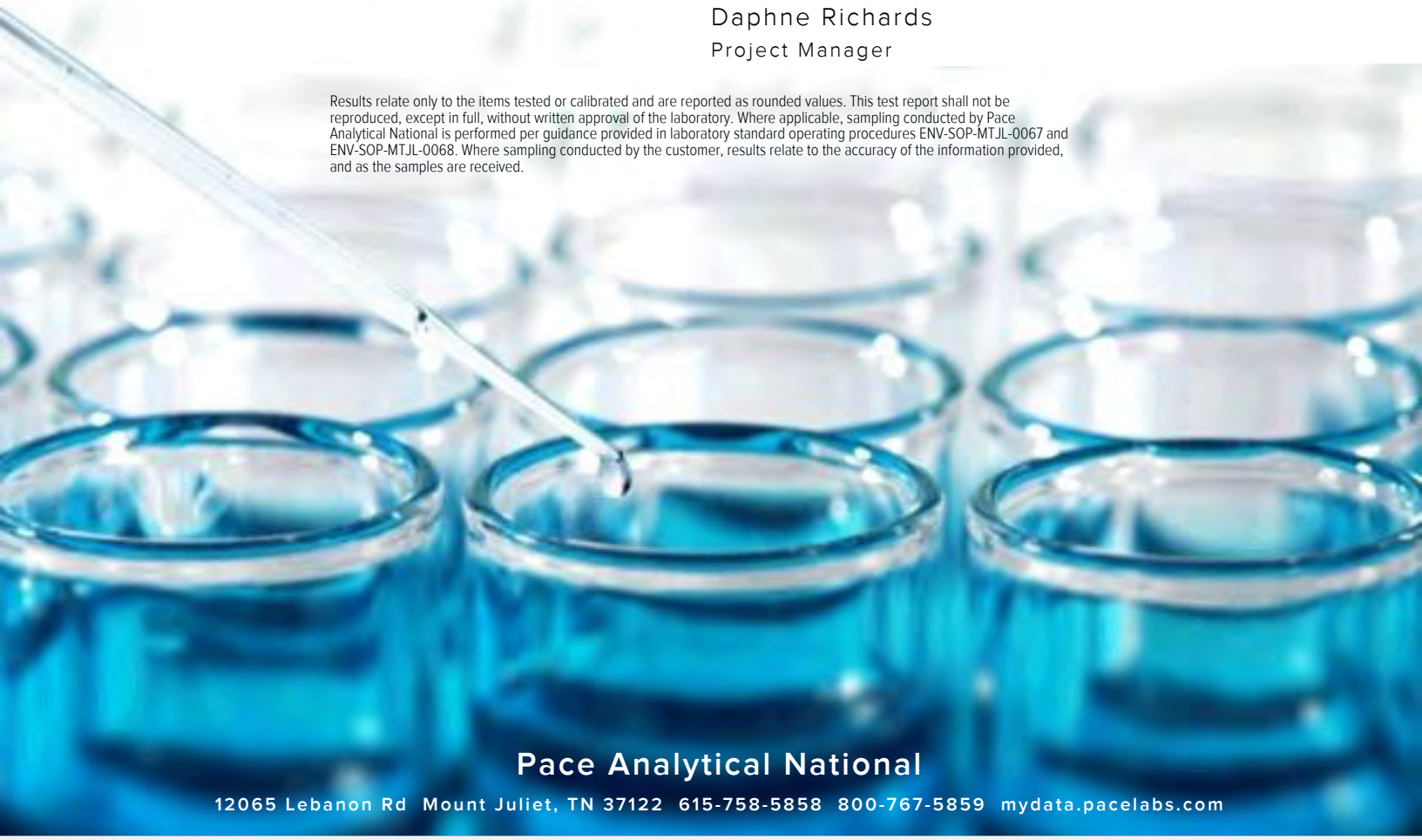
Sample Delivery Group:	L1800186
Samples Received:	11/15/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-CCR-M44D-1024 L1800186-01 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 15:02 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	1	11/22/24 07:19	11/22/24 07:19	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	10	11/22/24 08:11	11/22/24 08:11	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402750	1	11/15/24 21:45	11/15/24 21:45	BRT	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M54-1024 L1800186-02 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 16:37 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	20	11/22/24 08:46	11/22/24 08:46	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	5	11/22/24 08:29	11/22/24 08:29	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402751	1	11/16/24 16:20	11/16/24 16:20	KRB	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CH-CCR-W305-1024 L1800186-03 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 17:22 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404160	1	11/19/24 10:37	11/19/24 10:37	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	100	11/22/24 09:21	11/22/24 09:21	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	5	11/22/24 09:03	11/22/24 09:03	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2403372	1	11/17/24 19:04	11/17/24 19:04	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2403942	1	11/18/24 22:52	11/18/24 22:52	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2402750	1	11/15/24 21:45	11/15/24 21:45	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2401035	1	11/16/24 08:00	11/16/24 13:33	AF	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CH-CCR-MW79A-1024 L1800186-04 WW

Collected by: Nicolas Garnand | Collected date/time: 11/11/24 18:10 | Received date/time: 11/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404889	1	11/20/24 10:41	11/20/24 10:41	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	100	11/22/24 09:56	11/22/24 09:56	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402892	5	11/22/24 09:38	11/22/24 09:38	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2403372	1	11/17/24 19:06	11/17/24 19:06	RTW	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2403942	1	11/18/24 22:53	11/18/24 22:53	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2401035	1	11/16/24 08:00	11/16/24 14:10	AF	Mt. Juliet, TN
Subcontracted Analyses	WG2403708	1	12/04/24 00:00	12/04/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Project Narrative

L1800186 -01, -02, -03, -04 contains subout data that is included after the chain of custody.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2300		50.0	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1110		5.47	10.0	10	11/22/2024 08:11	WG2402892
Fluoride	0.717		0.0761	0.150	1	11/22/2024 07:19	WG2402892
Sulfate	309		6.37	50.0	10	11/22/2024 08:11	WG2402892

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.53	H3	1	11/15/2024 21:45	WG2402750

Sample Narrative:

L1800186-01 WG2402750: 7.53 at 18.2C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3140		100	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1500		10.9	20.0	20	11/22/2024 08:46	WG2402892
Fluoride	1.35		0.380	0.750	5	11/22/2024 08:29	WG2402892
Sulfate	377		3.18	25.0	5	11/22/2024 08:29	WG2402892

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.03	H3	1	11/16/2024 16:20	WG2402751

Sample Narrative:

L1800186-02 WG2402751: 8.03 at 18.8C

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	7280		200	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	103		4.75	20.0	1	11/19/2024 10:37	WG2404160

Sample Narrative:
L1800186-03 WG2404160: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2340		54.7	100	100	11/22/2024 09:21	WG2402892
Fluoride	0.510	E4	0.380	0.750	5	11/22/2024 09:03	WG2402892
Sulfate	2350		63.7	500	100	11/22/2024 09:21	WG2402892

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	0.104		0.0539	0.100	1	11/17/2024 19:04	WG2403372

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0435	0.200	1	11/18/2024 22:52	WG2403942

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.49	H3	1	11/15/2024 21:45	WG2402750

Sample Narrative:
L1800186-03 WG2402750: 7.49 at 18C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	2.40	H3	0.106	1.00	1	11/16/2024 13:33	WG2401035

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	7460		200	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Bicarbonate	124		4.75	20.0	1	11/20/2024 10:41	WG2404889

Sample Narrative:
L1800186-04 WG2404889: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2440		54.7	100	100	11/22/2024 09:56	WG2402892
Fluoride	0.697	E4	0.380	0.750	5	11/22/2024 09:38	WG2402892
Sulfate	2390		63.7	500	100	11/22/2024 09:56	WG2402892

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	U		0.0539	0.100	1	11/17/2024 19:06	WG2403372

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0435	0.200	1	11/18/2024 22:53	WG2403942

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.34	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:
L1800186-04 WG2403119: 7.34 at 20.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DOC	1.68	B1 H3	0.106	1.00	1	11/16/2024 14:10	WG2401035

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4147670-1 11/17/24 12:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1799799-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1799799-15 11/17/24 12:24 • (DUP) R4147670-3 11/17/24 12:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1630	1690	1	3.32		10

L1800186-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-04 11/17/24 12:24 • (DUP) R4147670-4 11/17/24 12:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	7460	7480	1	0.268		10

Laboratory Control Sample (LCS)

(LCS) R4147670-2 11/17/24 12:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8740	99.3	85.0-115	

Method Blank (MB)

(MB) R4147883-2 11/19/24 09:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Bicarbonate	U		4.75	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1799027-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799027-01 11/19/24 09:29 • (DUP) R4147883-3 11/19/24 09:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	109	110	1	0.963		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1800977-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-04 11/19/24 11:29 • (DUP) R4147883-4 11/19/24 11:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	500	510	1	2.00		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148557-2 11/20/24 10:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Bicarbonate	U		4.75	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800186-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-04 11/20/24 10:41 • (DUP) R4148557-3 11/20/24 10:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	124	126	1	1.10		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1801469-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1801469-06 11/20/24 12:52 • (DUP) R4148557-4 11/20/24 12:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	248	250	1	0.956		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4149387-1 11/21/24 23:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1800107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800107-01 11/21/24 23:46 • (DUP) R4149387-3 11/22/24 00:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	13.2	13.0	1	1.69		15
Sulfate	32.6	32.7	1	0.410		15

L1800133-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800133-01 11/22/24 00:56 • (DUP) R4149387-6 11/22/24 01:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.07	0.973	1	9.12	E4	15
Fluoride	U	U	1	0.000		15
Sulfate	1.18	1.21	1	1.81	E4	15

Laboratory Control Sample (LCS)

(LCS) R4149387-2 11/21/24 23:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.4	101	90.0-110	
Fluoride	8.00	8.21	103	90.0-110	
Sulfate	40.0	41.8	104	90.0-110	

L1800107-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800107-01 11/21/24 23:46 • (MS) R4149387-4 11/22/24 00:21 • (MSD) R4149387-5 11/22/24 00:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	13.2	52.2	52.1	97.4	97.1	1	90.0-110			0.206	15
Sulfate	40.0	32.6	68.6	69.1	90.1	91.3	1	90.0-110			0.673	15

L1800133-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800133-01 11/22/24 00:56 • (MS) R4149387-7 11/22/24 01:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	1.07	41.8	102	1	90.0-110	
Fluoride	8.00	U	8.30	104	1	90.0-110	
Sulfate	40.0	1.18	42.6	104	1	90.0-110	

Method Blank (MB)

(MB) R4147080-1 11/17/24 18:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ammonia Nitrogen	U		0.0539	0.100

L1800102-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800102-01 11/17/24 18:40 • (DUP) R4147080-3 11/17/24 18:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	U	U	1	0.000		10

L1800107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800107-01 11/17/24 18:54 • (DUP) R4147080-6 11/17/24 18:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	0.0940	0.0760	1	21.2	E4 R8	10

Laboratory Control Sample (LCS)

(LCS) R4147080-2 11/17/24 18:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	7.50	7.27	97.0	90.0-110	

L1800102-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800102-01 11/17/24 18:40 • (MS) R4147080-4 11/17/24 18:43 • (MSD) R4147080-5 11/17/24 18:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	U	4.79	4.77	95.8	95.4	1	90.0-110			0.418	10

L1800107-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800107-01 11/17/24 18:54 • (MS) R4147080-7 11/17/24 18:57 • (MSD) R4147080-8 11/17/24 18:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	0.0940	5.09	4.94	99.8	96.8	1	90.0-110			2.99	10

Method Blank (MB)

(MB) R4147506-1 11/18/24 22:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0435	0.200

L1797996-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797996-01 11/18/24 22:30 • (DUP) R4147506-3 11/18/24 22:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1800080-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800080-01 11/18/24 22:37 • (DUP) R4147506-6 11/18/24 22:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4147506-2 11/18/24 22:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.52	101	90.0-110	

L1797996-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797996-01 11/18/24 22:30 • (MS) R4147506-4 11/18/24 22:33 • (MSD) R4147506-5 11/18/24 22:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.52	2.41	101	96.4	1	90.0-110			4.46	20

L1800080-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800080-01 11/18/24 22:37 • (MS) R4147506-7 11/18/24 22:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.43	97.2	1	90.0-110	

L1800057-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800057-02 11/15/24 21:45 • (DUP) R4146737-2 11/15/24 21:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.70	5.69	1	0.176		1

Sample Narrative:

OS: 5.7 at 18.7C

DUP: 5.69 at 18.6C

L1800309-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1800309-05 11/15/24 21:45 • (DUP) R4146737-3 11/15/24 21:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.83	6.83	1	0.000		1

Sample Narrative:

OS: 6.83 at 19.8C

DUP: 6.83 at 19.7C

Laboratory Control Sample (LCS)

(LCS) R4146737-1 11/15/24 21:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.02 at 19.7C

L1799375-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799375-01 11/16/24 16:20 • (DUP) R4146899-2 11/16/24 16:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.04	7.06	1	0.284		1

Sample Narrative:

OS: 7.04 at 19.2C

DUP: 7.06 at 19.1C

L1800197-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800197-01 11/16/24 16:20 • (DUP) R4146899-3 11/16/24 16:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.64	7.64	1	0.000		1

Sample Narrative:

OS: 7.64 at 19C

DUP: 7.64 at 19C

Laboratory Control Sample (LCS)

(LCS) R4146899-1 11/16/24 16:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 19.7C

L1800091-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800091-01 11/18/24 11:40 • (DUP) R4147236-2 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.66	7.67	1	0.130		1

Sample Narrative:

OS: 7.66 at 19.6C

DUP: 7.67 at 19.9C

L1800923-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800923-04 11/18/24 11:40 • (DUP) R4147236-3 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.33	8.32	1	0.120		1

Sample Narrative:

OS: 8.33 at 19.7C

DUP: 8.32 at 19.9C

Laboratory Control Sample (LCS)

(LCS) R4147236-1 11/18/24 11:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 20C

Method Blank (MB)

(MB) R4147321-2 11/16/24 10:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
DOC	0.170	E4	0.106	1.00

L1800186-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-03 11/16/24 13:33 • (DUP) R4147321-5 11/16/24 13:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	2.40	2.28	1	4.74		20

Laboratory Control Sample (LCS)

(LCS) R4147321-1 11/16/24 10:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
DOC	25.0	24.0	96.0	85.0-115	

L1800186-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800186-04 11/16/24 14:10 • (MS) R4147321-6 11/16/24 15:20 • (MSD) R4147321-7 11/16/24 15:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25.0	1.68	26.5	26.5	99.2	99.1	1	80.0-120			0.151	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
R8	Sample RPD exceeded the method acceptance limit.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

~~Wood~~ WSP
4600 E. Washington St
Suite 600
Phoenix, AZ 85034

Billing Information:

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: ~~Jeff~~ Samantha O'Shea

Email To: samantha.oshea@wsp.com; natalie.chrismalaz

Project Description: APS - Cholla

City/State Collected: Joseph City, AZ

Phone: 602-733-6110
Fax:

Client Project #

Lab Project # AMECTAZ-APS Cholla

Collected by (print): Nicolas Garnand

Site/Facility ID #

P.O. #

Collected by (signature): Nicolas Garnand

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # 00097019

Date Results Needed

L# L1800186

Tal C160

Acctnum: AMECTAZ
Template: T259142
Prelogin: p1097829
TSR: Daphne Richards
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CL, Fl, SO4, pH	TDS	200.7	200.7 Field filter - Diss Fe, Diss Mn	200.8	200.8 Field filter -Diss As, Diss Co	TOC - 5M5310B	DOC -SM5310B - Field Filter	SM4500NH3G - NH3 as N	353.2 NO3+NO2 sN	Remarks	Sample # (lab only)
						Pres Chk			<2	<2	<2	<2			<2	<2		
CH- CCR- M44D - 1024		WW		11/11/24	1502	4	X	X	X		X							-01
CH- CCR- M54- 1024		WW		11/11/24	1637	3	X	X	X									-02
CH- CCR- W305 1024		WW		11/11/24	1722	10	X	X	X	X	X	X		X	X	X		-03
CH- CCR- MW79A - 1024		WW		11/11/24	1810	10	X	X	X	X	X	X		X	X	X		-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____
Flow Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 4102 9171 9341

PH – 10BDH0941
TRC – 3327A333

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Nicolas Garnand	11/14/24	1653	[signature]	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
[signature]	11/14/24	1800	FedEx	TUR 0.940=0.9 27
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			Ashley Barlett	11/15/2024 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPAZ

~~Wood~~ WSP
4600 E. Washington St
Suite 600
Phoenix, AZ 85034

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: ~~Jeff~~ Samantha O'Shea

Email To: samantha.oshea@wsp.com; natalie.chrismalaz

Project Description: APS - Cholla

City/State Collected: Joseph City, AZ

Phone: 602-733-6110
Fax:

Client Project #

Lab Project # AMECTAZ - APSCHOLLA

L# L1800180

Table #

Collected by (print): Nicolas Garnand

Site/Facility ID #

P.O. #

Acctnum: AMECTAZ
Template: T259142
Prelogin: p1097829
TSR: Daphne Richards
PB:

Collected by (signature): Nicolas Garnand
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # 00097019

Date Results Needed

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SM2320B - CO3, Alkalinity as CaCO3	SM2320B - HCo3 Alkalinity as CaCO3	245.1 Hg, included in 200.7 unfiltered	Remarks	Sample # (lab only)
CH- CCR- M44D - 1024		WW		11/11/24	1502	4					-01
CH- CCR- M54- 1024		WW		11/11/24	1637	3					-02
CH- CCR- W305 1024		WW		11/11/24	1722	10		X			-03
CH- CCR- MW79A - 1024		WW		11/11/24	1810	10		X			-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na. Dissolved Fe, Mn
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl Dissolved As, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: Y __N
Preservation Correct/Checked: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Garnand	11/14/24	1653	Amber Myers
Amber Myers	11/14/24	1800	Fed Ex
			Received for lab by: (Signature)
			Ashley Baxter

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:
TEMP 0.9+0=0.9 27

Date: 11/15/2024 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPAZ

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 12, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 19, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on December 12, 2024, to add method 245.1 to Pace sample 10716159-003 and -004.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10716159001	**CH-CCR-M44D-1024**	Water	11/11/24 15:02	11/19/24 09:00
10716159002	**CH-CCR-M54-1024**	Water	11/11/24 16:37	11/19/24 09:00
10716159003	**CH-CCR-W305-1024**	Water	11/11/24 17:22	11/19/24 09:00
10716159004	**CH-CCR-MW79A-1024**	Water	11/11/24 18:10	11/19/24 09:00

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10716159001	**CH-CCR-M44D-1024**	EPA 200.7	IP	4	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716159002	**CH-CCR-M54-1024**	EPA 200.7	IP	2	PASI-M
10716159003	**CH-CCR-W305-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.7	DM	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716159004	**CH-CCR-MW79A-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.7	DM	2	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 200.8	GAS1	2	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-M44D-1024 **Lab ID: 10716159001** Collected: 11/11/24 15:02 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:19	7440-41-7	
Boron	**238**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:19	7440-42-8	
Calcium	**77200**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:19	7440-70-2	
Magnesium	**46100**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:19	7439-95-4	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:33	7440-36-0	D3
Arsenic	**0.76J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:33	7440-38-2	D3
Barium	**19.3**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:33	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:33	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:33	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:33	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:33	7439-92-1	D3
Lithium	**39.1**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:33	7439-93-2	
Molybdenum	**2.2J**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:33	7439-98-7	D3
Selenium	**0.66J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:33	7782-49-2	D3
Thallium	**0.28J**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:33	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/02/24 06:17	12/03/24 10:54	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-M54-1024 **Lab ID: 10716159002** Collected: 11/11/24 16:37 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Boron	**522**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:24	7440-42-8	
Calcium	**90400**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:24	7440-70-2	

REPORT OF LABORATORY ANALYSIS

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(612)607-1700

ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-W305-1024 **Lab ID: 10716159003** Collected: 11/11/24 17:22 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:26	7440-41-7	
Boron	**464**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:26	7440-42-8	
Calcium	**632000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:26	7440-70-2	
Iron	**247**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:26	7439-89-6	
Magnesium	**112000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:26	7439-95-4	
Manganese	**5380**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:26	7439-96-5	
Potassium	**4600**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:26	7440-09-7	
Sodium	**1510000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:12	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**208**	ug/L	50.0	7.5	1	11/27/24 11:02	12/02/24 12:33	7439-89-6	
Manganese, Dissolved	**5270**	ug/L	5.0	0.50	1	11/27/24 11:02	12/02/24 12:33	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:47	7440-36-0	D3
Arsenic	**0.84J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:47	7440-38-2	D3
Barium	**10.6**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:47	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:47	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:47	7440-47-3	D3
Cobalt	**14.4**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:47	7440-48-4	
Lead	**1.3J**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:47	7439-92-1	D3
Lithium	**190**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:47	7439-93-2	
Molybdenum	**19.9**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:47	7439-98-7	
Selenium	**0.54J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:47	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:47	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.66**	ug/L	2.5	0.66	5	11/27/24 11:02	12/02/24 23:35	7440-38-2	D3
Cobalt, Dissolved	**14.8**	ug/L	2.5	0.20	5	11/27/24 11:02	12/03/24 16:53	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/09/24 05:48	12/09/24 11:07	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Sample: CH-CCR-MW79A-1024 **Lab ID: 10716159004** Collected: 11/11/24 18:10 Received: 11/19/24 09:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:27	7440-41-7	
Boron	**363**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:27	7440-42-8	
Calcium	**688000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:27	7440-70-2	
Iron	**90.9**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:27	7439-89-6	
Magnesium	**93300**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:27	7439-95-4	
Manganese	**4060**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:27	7439-96-5	
Potassium	**13700**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:27	7440-09-7	
Sodium	**1640000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:14	7440-23-5	
200.7 MET ICP, Dissolved	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Iron, Dissolved	**17.4J**	ug/L	50.0	7.5	1	11/27/24 11:02	12/02/24 12:38	7439-89-6	
Manganese, Dissolved	**3980**	ug/L	5.0	0.50	1	11/27/24 11:02	12/02/24 12:38	7439-96-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 09:50	7440-36-0	D3
Arsenic	**<0.61**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 09:50	7440-38-2	D3
Barium	**11.1**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 09:50	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 09:50	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 09:50	7440-47-3	D3
Cobalt	**10.6**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 09:50	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 09:50	7439-92-1	D3
Lithium	**138**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 09:50	7439-93-2	
Molybdenum	**13.9**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 09:50	7439-98-7	
Selenium	**0.58J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 09:50	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 09:50	7440-28-0	D3
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Arsenic, Dissolved	**<0.66**	ug/L	2.5	0.66	5	11/27/24 11:02	12/02/24 23:40	7440-38-2	D3
Cobalt, Dissolved	**10.4**	ug/L	2.5	0.20	5	11/27/24 11:02	12/03/24 16:57	7440-48-4	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/09/24 05:48	12/09/24 11:11	7439-97-6	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 982136
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159001

METHOD BLANK: 5131961 Matrix: Water
Associated Lab Samples: 10716159001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	12/03/24 10:51	

LABORATORY CONTROL SAMPLE: 5131962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5131963 5131964

Parameter	Units	10716376003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.8	4.6	97	92	70-130	5	20	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 983405
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159003, 10716159004

METHOD BLANK: 5137795 Matrix: Water
Associated Lab Samples: 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	12/09/24 11:04	

LABORATORY CONTROL SAMPLE: 5137796

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5137797 5137798

Parameter	Units	10716159003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	5.0	4.8	99	95	70-130	4	20	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981154
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159001, 10716159002, 10716159003, 10716159004

METHOD BLANK: 5126332 Matrix: Water
Associated Lab Samples: 10716159001, 10716159002, 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/26/24 15:16	
Boron	ug/L	<16.0	150	16.0	11/26/24 15:16	
Calcium	ug/L	<31.8	500	31.8	11/26/24 15:16	
Iron	ug/L	<7.5	50.0	7.5	11/26/24 15:16	
Magnesium	ug/L	<28.9	500	28.9	11/26/24 15:16	
Manganese	ug/L	<0.50	5.0	0.50	11/26/24 15:16	
Potassium	ug/L	<108	2500	108	11/26/24 15:16	
Sodium	ug/L	504J	1000	45.4	11/26/24 15:16	P8

LABORATORY CONTROL SAMPLE: 5126333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1030	103	85-115	
Boron	ug/L	1000	1040	104	85-115	
Calcium	ug/L	20000	19400	97	85-115	
Iron	ug/L	20000	20100	101	85-115	
Magnesium	ug/L	20000	19500	97	85-115	
Manganese	ug/L	1000	1030	103	85-115	
Potassium	ug/L	20000	20100	100	85-115	
Sodium	ug/L	20000	19900	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5126334 5126335

Parameter	Units	10716159001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1010	1050	101	105	70-130	3	20	
Boron	ug/L	238	1000	1000	1260	1300	102	106	70-130	3	20	
Calcium	ug/L	77200	20000	20000	93400	95500	81	92	70-130	2	20	
Iron	ug/L		20000	20000	34500	35300	92	96	70-130	2	20	
Magnesium	ug/L	46100	20000	20000	64400	65700	92	98	70-130	2	20	
Manganese	ug/L		1000	1000	1290	1320	97	101	70-130	3	20	
Potassium	ug/L		20000	20000	28400	29100	116	120	70-130	3	20	
Sodium	ug/L		20000	20000	792000	787000	104	79	70-130	1	20	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

MATRIX SPIKE SAMPLE: 5126336

Parameter	Units	10716376024 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	1050	105	70-130	
Boron	ug/L	3670	1000	4690	102	70-130	
Calcium	ug/L	490000	20000	499000	45	70-130	P6
Iron	ug/L	207	20000	19600	97	70-130	
Magnesium	ug/L	263000	20000	279000	78	70-130	
Manganese	ug/L	130	1000	1130	100	70-130	
Potassium	ug/L	31000	20000	54300	116	70-130	
Sodium	ug/L	1460000	20000	1320000	-734	70-130	P6

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981791
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159003, 10716159004

METHOD BLANK: 5129739 Matrix: Water
Associated Lab Samples: 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<7.5	50.0	7.5	12/02/24 12:02	
Manganese, Dissolved	ug/L	<0.50	5.0	0.50	12/02/24 12:02	

LABORATORY CONTROL SAMPLE: 5129740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	20000	19100	96	85-115	
Manganese, Dissolved	ug/L	1000	982	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5129741 5129742

Parameter	Units	10714271001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	10.7J	20000	20000	19500	19300	97	97	70-130	1	20	
Manganese, Dissolved	ug/L	27.6	1000	1000	1030	1030	100	100	70-130	1	20	

MATRIX SPIKE SAMPLE: 5129743

Parameter	Units	10714271011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	<7.5	20000	19000	95	70-130	
Manganese, Dissolved	ug/L	23.2	1000	994	97	70-130	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981500
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159001, 10716159003, 10716159004

METHOD BLANK: 5128271 Matrix: Water
Associated Lab Samples: 10716159001, 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/27/24 09:27	
Arsenic	ug/L	<0.12	0.50	0.12	11/27/24 09:27	
Barium	ug/L	<0.070	0.30	0.070	11/27/24 09:27	
Cadmium	ug/L	<0.030	0.080	0.030	11/27/24 09:27	
Chromium	ug/L	<0.54	2.0	0.54	11/27/24 09:27	
Cobalt	ug/L	<0.095	0.50	0.095	11/27/24 09:27	
Lead	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Lithium	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Molybdenum	ug/L	<0.13	0.50	0.13	11/27/24 09:27	
Selenium	ug/L	<0.074	0.50	0.074	11/27/24 09:27	
Thallium	ug/L	<0.026	0.10	0.026	11/27/24 09:27	

LABORATORY CONTROL SAMPLE: 5128272

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	104	104	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	105	105	85-115	
Cadmium	ug/L	100	102	102	85-115	
Chromium	ug/L	100	110	110	85-115	
Cobalt	ug/L	100	109	109	85-115	
Lead	ug/L	100	107	107	85-115	
Lithium	ug/L	100	106	106	85-115	
Molybdenum	ug/L	100	98.9	99	85-115	
Selenium	ug/L	100	106	106	85-115	
Thallium	ug/L	100	107	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	100	100	102	101	102	101	70-130	1	20	
Arsenic	ug/L	8.3	100	100	115	111	107	103	70-130	3	20	
Barium	ug/L	26.9	100	100	125	126	98	99	70-130	1	20	
Cadmium	ug/L	ND	100	100	99.6	98.9	100	99	70-130	1	20	
Chromium	ug/L	ND	100	100	109	108	107	106	70-130	1	20	
Cobalt	ug/L	ND	100	100	103	101	102	101	70-130	1	20	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	100	100	104	102	104	102	70-130	2	20	
Lithium	ug/L	47.0	100	100	159	147	112	100	70-130	8	20	
Molybdenum	ug/L	5.7	100	100	106	105	100	99	70-130	1	20	
Selenium	ug/L	ND	100	100	108	100	108	100	70-130	8	20	
Thallium	ug/L	ND	100	100	102	101	102	101	70-130	1	20	

MATRIX SPIKE SAMPLE: 5128275

Parameter	Units	10716376023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.44	100	100	100	70-130	
Arsenic	ug/L	1.0J	100	108	107	70-130	
Barium	ug/L	8.8	100	109	100	70-130	
Cadmium	ug/L	0.34J	100	97.3	97	70-130	
Chromium	ug/L	<2.7	100	109	106	70-130	
Cobalt	ug/L	7.2	100	110	103	70-130	
Lead	ug/L	<0.90	100	104	104	70-130	
Lithium	ug/L	182	100	274	92	70-130	
Molybdenum	ug/L	32.3	100	134	101	70-130	
Selenium	ug/L	0.80J	100	102	101	70-130	
Thallium	ug/L	<0.13	100	104	104	70-130	

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QUALITY CONTROL DATA

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

QC Batch: 981801
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716159003, 10716159004

METHOD BLANK: 5129790 Matrix: Water
Associated Lab Samples: 10716159003, 10716159004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<0.13	0.50	0.13	12/02/24 22:12	
Cobalt, Dissolved	ug/L	<0.040	0.50	0.040	12/02/24 22:12	

LABORATORY CONTROL SAMPLE: 5129791

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	100	103	103	85-115	
Cobalt, Dissolved	ug/L	100	110	110	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5129792 5129793

Parameter	Units	10714271002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	<0.66	100	100	105	108	104	107	70-130	2	20	
Cobalt, Dissolved	ug/L	1.5J	100	100	107	110	105	108	70-130	3	20	

MATRIX SPIKE SAMPLE: 5129794

Parameter	Units	10714271012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	<0.66	100	108	108	70-130	
Cobalt, Dissolved	ug/L	13.4	100	118	105	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
P8	Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800186 WG2403708-Revised Report
Pace Project No.: 10716159

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10716159001	**CH-CCR-M44D-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159002	**CH-CCR-M54-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159003	**CH-CCR-W305-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159004	**CH-CCR-MW79A-1024**	EPA 200.7	981154	EPA 200.7	981749
10716159003	**CH-CCR-W305-1024**	EPA 200.7	981791	EPA 200.7	982202
10716159004	**CH-CCR-MW79A-1024**	EPA 200.7	981791	EPA 200.7	982202
10716159001	**CH-CCR-M44D-1024**	EPA 200.8	981500	EPA 200.8	981756
10716159003	**CH-CCR-W305-1024**	EPA 200.8	981500	EPA 200.8	981756
10716159004	**CH-CCR-MW79A-1024**	EPA 200.8	981500	EPA 200.8	981756
10716159003	**CH-CCR-W305-1024**	EPA 200.8	981801	EPA 200.8	982182
10716159004	**CH-CCR-MW79A-1024**	EPA 200.8	981801	EPA 200.8	982182
10716159001	**CH-CCR-M44D-1024**	EPA 245.1	982136	EPA 245.1	982326
10716159003	**CH-CCR-W305-1024**	EPA 245.1	983405	EPA 245.1	983486
10716159004	**CH-CCR-MW79A-1024**	EPA 245.1	983405	EPA 245.1	983486

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Sub-Contract Chain of Custody

Batch Date/Time: 11/18/24 10:43
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2403708
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 11/29/24
ESC Purchase Order #: L1800186
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only	
CH-CCR-M44D-1024	WW	AZ	11/11/24 15:02	Metals	1. L1800186-01	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	001
CH-CCR-M54-1024	WW	AZ	11/11/24 16:37	Metals	2. L1800186-02	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	002
CH-CCR-W305-1024	WW	AZ	11/11/24 17:22	Metals	3. L1800186-03	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	003
CH-CCR-MW79A-1024	WW	AZ	11/11/24 18:10	Metals	4. L1800186-04	200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na Disollved Fe, Mn, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Dissolved As, Co	004

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ Date 11-18-24

Received by: M/Pace Date 11/19/24 9:00

Relinquished by: _____ Date _____

Received by: _____ Date _____

T4 1.8°C

WO#: 10716159

10716159

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTJL **PROJECT #:**

WO#: 10716159

PM: TKL **Due Date: 12/05/24**

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 425709333148 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☑ YES ☐ NO **Type of Ice:** ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☑ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: True **Cooler Temp Read w/Temp Blank:** 1.8 °C **Cooler Temp Corrected w/Temp Blank:** 1.8 °C	**Average Corrected Temp (no Temp Blank Only):** _____ °C
NOTE: *Temp should be above freezing to 6°C.*	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A Water Sample/Other (describe): _____	**Initials & Date of Person Examining Contents:** 11/19/24 JT1
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? -- Pace Containers Used?	☑ ☑	☐ ☐	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☑	☐	☐	10. Is sediment visible in the dissolved container: ☐ YES ☑ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		**11. If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.	☑ ☑ ☐	☐ ☐ ☐	☐ ☐ ☑	12. Sample #: 001 2/2, 002 1/1, 003-004 4/4 ☑ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate Positive for Residual Chlorine: ☐ YES ☐ NO **pH Paper Lot #**

Residual Chlorine	0-6 Roll	0-6 Strip	0-14 Strip
	205224		

☐ See Exceptions form ENV-FRM-MIN4-0142

Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers? Headspace in VOA Vials (greater than 6mm)?	☐ ☐	☐ ☐	☑ ☑	14. ☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present? Trip Blank Custody Seals Present?	☐ ☐	☐ ☐	☑ ☑	15. Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ **Date:** 11/20/24

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: JT1 **Line:** 2

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800186	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	29-Nov	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Metals	Residual Chlorine (Y/N)	
1	CH-CCR-M44D-1024	WT				11-Nov	15:02		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
2	CH-CCR-M54-1024	WT				11-Nov	16:37		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
3	CH-CCR-W305-1024	WT				11-Nov	17:22		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
4	CH-CCR-MW79A-1024	WT				11-Nov	18:10		1								1		X		200.7 B, Ca, Be, Li, Fe, Mn, K, M
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	18-Nov	10:48				
Pace Analytical Batch: WG2403708							
Pace Analytical SDGs: L1800186							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	**DATE Signed:**				

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

ANALYTICAL REPORT

December 10, 2024

WSP (Formely Wood E&I)-Phoenix, AZ

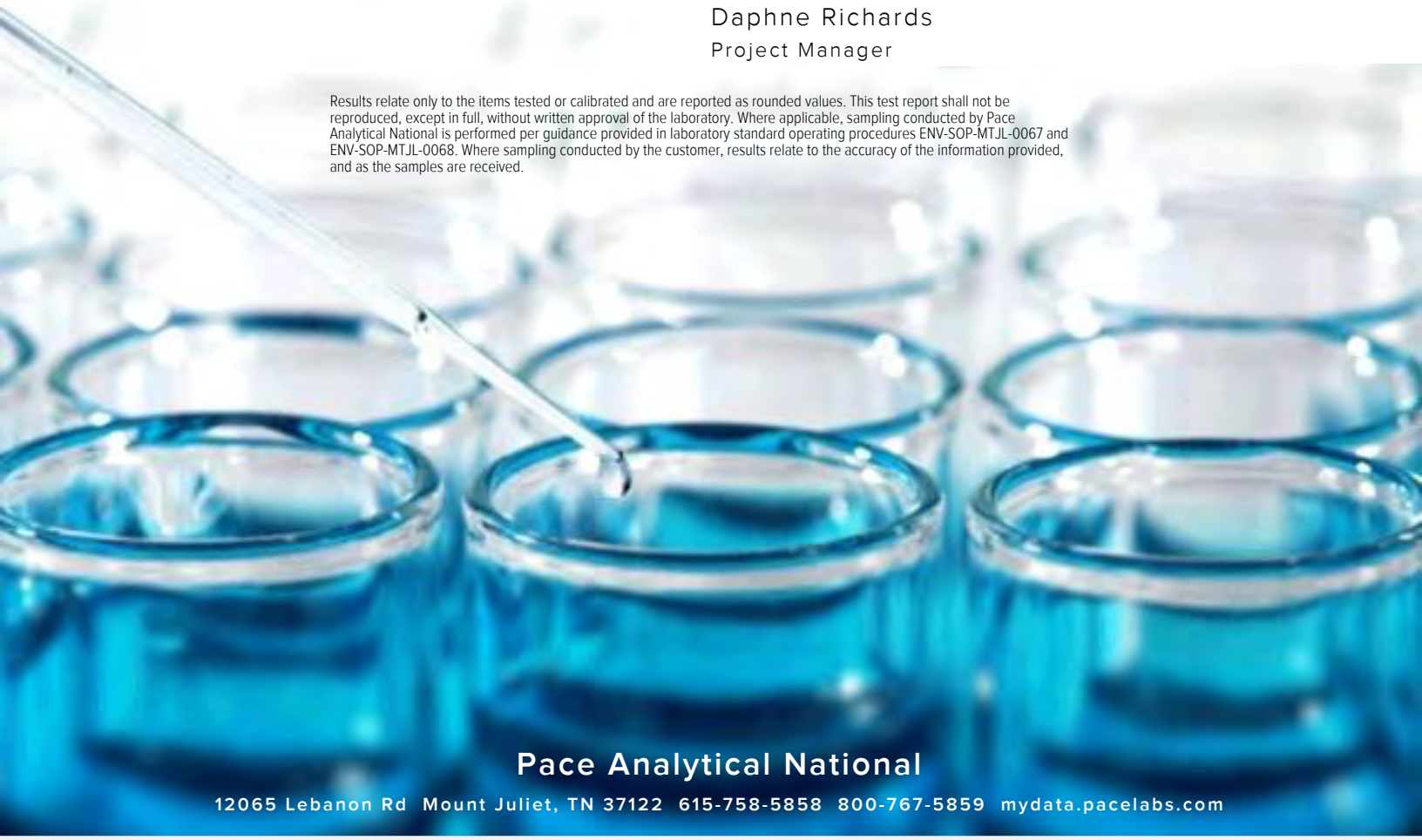
Sample Delivery Group:	L1800893
Samples Received:	11/16/2024
Project Number:	US0023513.6913.003.2
Description:	APS-Cholla

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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CH-CCR-M67A-1024 L1800893-01 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 12:37 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404842	1	11/20/24 07:34	11/20/24 07:34	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402063	5	11/18/24 23:20	11/18/24 23:20	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402063	50	11/19/24 00:14	11/19/24 00:14	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:18	11/19/24 14:18	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:39	11/21/24 18:39	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403128	1	11/16/24 22:00	11/16/24 22:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 17:33	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M46A-1024 L1800893-02 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 15:13 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403979	1	11/19/24 11:06	11/19/24 11:06	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 00:40	11/24/24 00:40	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 00:13	11/24/24 00:13	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:22	11/19/24 14:22	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:45	11/21/24 18:45	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2404741	1	11/20/24 14:01	11/20/24 14:01	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 17:51	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-M65A-1024 L1800893-03 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 16:40 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404889	1	11/20/24 11:06	11/20/24 11:06	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 01:33	11/24/24 01:33	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 01:07	11/24/24 01:07	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:25	11/19/24 14:25	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:46	11/21/24 18:46	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 18:08	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-HUNTB-1024 L1800893-04 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 17:27 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403981	1	11/19/24 16:46	11/19/24 16:46	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 02:14	11/24/24 02:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 02:00	11/24/24 02:00	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:28	11/19/24 14:28	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:47	11/21/24 18:47	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403128	1	11/16/24 22:00	11/16/24 22:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 00:16	11/23/24 00:16	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 18:27	TMH	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-HUNTB-1024 L1800893-04 WW

Collected by: Nicolas Garnand | Collected date/time: 11/12/24 17:27 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-FAP-1024 L1800893-05 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 11:48 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403979	1	11/19/24 11:27	11/19/24 11:27	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	1000	11/24/24 02:41	11/24/24 02:41	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	2000	11/25/24 13:32	11/25/24 13:32	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	50	11/24/24 02:27	11/24/24 02:27	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	10	11/19/24 14:36	11/19/24 14:36	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	5	11/21/24 18:48	11/21/24 18:48	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2404741	1	11/20/24 14:01	11/20/24 14:01	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406951	5	11/23/24 10:26	11/23/24 10:26	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/20/24 00:08	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EW01-1024 L1800893-06 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 12:20 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404889	1	11/20/24 11:11	11/20/24 11:11	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 03:07	11/24/24 03:07	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 02:54	11/24/24 02:54	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:37	11/19/24 14:37	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:50	11/21/24 18:50	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 00:35	11/23/24 00:35	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 18:44	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EW02-1024 L1800893-07 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 12:42 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:38	11/18/24 15:38	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 04:01	11/24/24 04:01	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 03:48	11/24/24 03:48	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:39	11/19/24 14:39	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404872	1	11/21/24 18:51	11/21/24 18:51	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 00:54	11/23/24 00:54	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 19:02	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-GSX4-1024 L1800893-08 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 12:59 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:42	11/18/24 15:42	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 04:28	11/24/24 04:28	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 04:14	11/24/24 04:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:40	11/19/24 14:40	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:42	11/20/24 11:42	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 01:14	11/23/24 01:14	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 19:19	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EW03-1024 L1800893-09 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 13:17 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:47	11/18/24 15:47	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 04:55	11/24/24 04:55	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 04:41	11/24/24 04:41	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:42	11/19/24 14:42	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:47	11/20/24 11:47	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406687	1	11/23/24 01:34	11/23/24 01:34	TMH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 19:37	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-GSX3-1024 L1800893-10 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 13:37 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:52	11/18/24 15:52	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 05:21	11/24/24 05:21	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 05:08	11/24/24 05:08	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:43	11/19/24 14:43	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:49	11/20/24 11:49	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 03:15	11/24/24 03:15	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 20:33	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-GSX1R-1024 L1800893-11 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 13:52 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 15:56	11/18/24 15:56	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 05:48	11/24/24 05:48	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 05:35	11/24/24 05:35	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:45	11/19/24 14:45	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:50	11/20/24 11:50	KMB	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-GSX1R-1024 L1800893-11 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 13:52 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 03:34	11/24/24 03:34	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 20:50	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EW04-1024 L1800893-12 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 14:12 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 16:22	11/18/24 16:22	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 06:42	11/24/24 06:42	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 06:29	11/24/24 06:29	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:46	11/19/24 14:46	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:55	11/20/24 11:55	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 03:52	11/24/24 03:52	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 21:08	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-PETRO-1024 L1800893-13 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 15:21 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404883	1	11/20/24 10:53	11/20/24 10:53	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 07:09	11/24/24 07:09	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 06:55	11/24/24 06:55	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:48	11/19/24 14:48	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:56	11/20/24 11:56	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 04:54	11/24/24 04:54	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 21:26	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TANNER-1024 L1800893-14 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 15:45 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404889	1	11/20/24 11:17	11/20/24 11:17	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 07:36	11/24/24 07:36	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 07:22	11/24/24 07:22	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:54	11/19/24 14:54	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:58	11/20/24 11:58	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 05:29	11/24/24 05:29	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 21:43	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-TWX3-1024 L1800893-15 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:04 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 16:28	11/18/24 16:28	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 08:02	11/24/24 08:02	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 07:49	11/24/24 07:49	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:55	11/19/24 14:55	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 11:59	11/20/24 11:59	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 05:52	11/24/24 05:52	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 22:00	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX4-1024 L1800893-16 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:20 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403786	1	11/18/24 16:33	11/18/24 16:33	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 08:29	11/24/24 08:29	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 08:16	11/24/24 08:16	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:57	11/19/24 14:57	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:00	11/20/24 12:00	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 06:15	11/24/24 06:15	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 22:17	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX5-1024 L1800893-17 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:38 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404842	1	11/20/24 07:19	11/20/24 07:19	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 09:24	11/24/24 09:24	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 09:11	11/24/24 09:11	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 14:58	11/19/24 14:58	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:01	11/20/24 12:01	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 06:33	11/24/24 06:33	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 22:34	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX6-1024 L1800893-18 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:46 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404842	1	11/20/24 07:40	11/20/24 07:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 09:51	11/24/24 09:51	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 09:38	11/24/24 09:38	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 15:00	11/19/24 15:00	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:03	11/20/24 12:03	KMB	Mt. Juliet, TN

CH-CCR-TWX6-1024 L1800893-18 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:46 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 06:51	11/24/24 06:51	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 22:51	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX7-1024 L1800893-19 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 16:55 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403981	1	11/19/24 16:49	11/19/24 16:49	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 10:18	11/24/24 10:18	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 10:05	11/24/24 10:05	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 15:01	11/19/24 15:01	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:04	11/20/24 12:04	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 07:08	11/24/24 07:08	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2403915	20	11/19/24 09:05	11/19/24 23:09	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX8-1024 L1800893-20 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 17:10 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404883	1	11/20/24 10:59	11/20/24 10:59	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 10:45	11/24/24 10:45	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 10:32	11/24/24 10:32	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404175	1	11/19/24 15:03	11/19/24 15:03	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:05	11/20/24 12:05	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403124	1	11/19/24 19:20	11/19/24 19:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 08:05	11/24/24 08:05	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 12:43	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-TWX9-1024 L1800893-21 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 17:20 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403359	1	11/17/24 15:28	11/18/24 10:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404603	1	11/20/24 07:42	11/20/24 07:42	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	100	11/24/24 11:12	11/24/24 11:12	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403211	5	11/24/24 10:58	11/24/24 10:58	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:32	11/19/24 15:32	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2404874	1	11/20/24 12:06	11/20/24 12:06	KMB	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403128	1	11/16/24 22:00	11/16/24 22:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 09:07	11/24/24 09:07	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 13:47	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CH-CCR-TWX10-1024 L1800893-22 WW

Collected by: Nicolas Garnand | Collected date/time: 11/13/24 17:33 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2404842	1	11/20/24 07:46	11/20/24 07:46	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	100	11/22/24 23:45	11/22/24 23:45	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	5	11/22/24 23:32	11/22/24 23:32	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:36	11/19/24 15:36	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2406151	1	11/21/24 20:56	11/21/24 20:56	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403128	1	11/16/24 22:00	11/16/24 22:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 09:43	11/24/24 09:43	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 14:23	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-BAPTD-1024 L1800893-23 WW

Collected by: Nicolas Garnand | Collected date/time: 11/14/24 09:23 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403981	1	11/19/24 16:55	11/19/24 16:55	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	100	11/23/24 00:11	11/23/24 00:11	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	5	11/22/24 23:58	11/22/24 23:58	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:39	11/19/24 15:39	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2406151	1	11/21/24 20:58	11/21/24 20:58	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 10:01	11/24/24 10:01	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 14:41	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-BAP-1024 L1800893-24 WW

Collected by: Nicolas Garnand | Collected date/time: 11/14/24 09:53 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403981	1	11/19/24 17:00	11/19/24 17:00	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	100	11/23/24 00:36	11/23/24 00:36	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	5	11/23/24 00:24	11/23/24 00:24	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:41	11/19/24 15:41	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2406151	1	11/21/24 20:59	11/21/24 20:59	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 10:20	11/24/24 10:20	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 15:02	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CH-CCR-EB01-1024 L1800893-25 WW

Collected by: Nicolas Garnand | Collected date/time: 11/14/24 10:40 | Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2403363	1	11/17/24 15:48	11/18/24 12:41	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2403985	1	11/19/24 13:41	11/19/24 13:41	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2403212	1	11/23/24 00:49	11/23/24 00:49	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2404244	1	11/19/24 15:42	11/19/24 15:42	LAS	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2406151	1	11/21/24 21:00	11/21/24 21:00	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2403119	1	11/18/24 11:40	11/18/24 11:40	BJM	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY

CH-CCR-EB01-1024 L1800893-25 WW

Collected by: Nicolas Garnand
Collected date/time: 11/14/24 10:40
Received date/time: 11/16/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 5310 B-2014	WG2406981	1	11/24/24 10:36	11/24/24 10:36	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2406075	1	11/26/24 12:09	11/26/24 15:20	TMH	Mt. Juliet, TN
Subcontracted Analyses	WG2404282	1	12/10/24 00:00	12/10/24 00:00	-	Minneapolis, MN 55414

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

Project Narrative

L1800893 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25 contains subout data that is included after the chain of custody.

Sample Delivery Group (SDG) Narrative

Sample received with improper chemical preservation.

Lab Sample ID	Project Sample ID	Method
L1800893-05	CH-CCR-FAP-1024	5310 B-2014

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	5070000		100000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	247000		4750	20000	1	11/20/2024 07:34	WG2404842

Sample Narrative:
L1800893-01 WG2404842: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1560000		27400	50000	50	11/19/2024 00:14	WG2402063
Fluoride	706	E4	380	750	5	11/18/2024 23:20	WG2402063
Sulfate	1430000		31800	250000	50	11/19/2024 00:14	WG2402063

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	392		53.9	100	1	11/19/2024 14:18	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 18:39	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.57	H3	1	11/16/2024 22:00	WG2403128

Sample Narrative:
L1800893-01 WG2403128: 7.57 at 18.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	U	H3	2120	20000	20	11/19/2024 17:33	WG2403915

Sample Narrative:
L1800893-01 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	12000000		200000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	238000		4750	20000	1	11/19/2024 11:06	WG2403979

Sample Narrative:
L1800893-02 WG2403979: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	5190000		54700	100000	100	11/24/2024 00:40	WG2403211
Fluoride	824	R8	380	750	5	11/24/2024 00:13	WG2403211
Sulfate	3100000		63700	500000	100	11/24/2024 00:40	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	1550		53.9	100	1	11/19/2024 14:22	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 18:45	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.10	H3	1	11/20/2024 14:01	WG2404741

Sample Narrative:
L1800893-02 WG2404741: 7.1 at 19C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	4660	E4 H3	2120	20000	20	11/19/2024 17:51	WG2403915

Sample Narrative:
L1800893-02 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	9260000		200000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	171000		4750	20000	1	11/20/2024 11:06	WG2404889

Sample Narrative:
L1800893-03 WG2404889: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	3320000		54700	100000	100	11/24/2024 01:33	WG2403211
Fluoride	1480	R8	380	750	5	11/24/2024 01:07	WG2403211
Sulfate	3010000		63700	500000	100	11/24/2024 01:33	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	237		53.9	100	1	11/19/2024 14:25	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 18:46	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.60	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:
L1800893-03 WG2403124: 7.6 at 19.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	4540	E4 H3	2120	20000	20	11/19/2024 18:08	WG2403915

Sample Narrative:
L1800893-03 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	14400000		400000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	54600		4750	20000	1	11/19/2024 16:46	WG2403981
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 16:46	WG2403981

Sample Narrative:

L1800893-04 WG2403981: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	6120000		54700	100000	100	11/24/2024 02:14	WG2403211
Fluoride	3270		380	750	5	11/24/2024 02:00	WG2403211
Sulfate	3640000		63700	500000	100	11/24/2024 02:14	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	663		53.9	100	1	11/19/2024 14:28	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	268		43.5	200	1	11/21/2024 18:47	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.43	H3	1	11/16/2024 22:00	WG2403128

Sample Narrative:

L1800893-04 WG2403128: 7.43 at 18.7C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2170		102	1000	1	11/23/2024 00:16	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	4730	E4 H3	2120	20000	20	11/19/2024 18:27	WG2403915

Sample Narrative:

L1800893-04 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	259000000		1000000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	964000		4750	20000	1	11/19/2024 11:27	WG2403979
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 11:27	WG2403979

Sample Narrative:

L1800893-05 WG2403979: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	99000000		1090000	2000000	2000	11/25/2024 13:32	WG2403211
Fluoride	113000		3800	7500	50	11/24/2024 02:27	WG2403211
Sulfate	48600000		637000	5000000	1000	11/24/2024 02:41	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	735	E4	539	1000	10	11/19/2024 14:36	WG2404175

Sample Narrative:

L1800893-05 WG2404175: Dilution due to matrix.

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		218	1000	5	11/21/2024 18:48	WG2404872

Sample Narrative:

L1800893-05 WG2404872: Dilution due to matrix.

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	6.79	H3	1	11/20/2024 14:01	WG2404741

Sample Narrative:

L1800893-05 WG2404741: 6.79 at 18.5C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	182000		510	5000	5	11/23/2024 10:26	WG2406951

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	156000	H3	2120	20000	20	11/20/2024 00:08	WG2403915

Sample Narrative:

L1800893-05 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	10500000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	139000		4750	20000	1	11/20/2024 11:11	WG2404889
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 11:11	WG2404889

Sample Narrative:

L1800893-06 WG2404889: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	4230000		54700	100000	100	11/24/2024 03:07	WG2403211
Fluoride	2190		380	750	5	11/24/2024 02:54	WG2403211
Sulfate	3270000		63700	500000	100	11/24/2024 03:07	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:37	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	80.0	E4	43.5	200	1	11/21/2024 18:50	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.59	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-06 WG2403124: 7.59 at 18.8C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1520		102	1000	1	11/23/2024 00:35	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	4590	E4 H3	2120	20000	20	11/19/2024 18:44	WG2403915

Sample Narrative:

L1800893-06 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	15800000		400000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	98600		4750	20000	1	11/18/2024 15:38	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:38	WG2403786

Sample Narrative:

L1800893-07 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	6880000		54700	100000	100	11/24/2024 04:01	WG2403211
Fluoride	1400		380	750	5	11/24/2024 03:48	WG2403211
Sulfate	4410000		63700	500000	100	11/24/2024 04:01	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:39	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	116	E4	43.5	200	1	11/21/2024 18:51	WG2404872

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	6.68	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-07 WG2403119: 6.68 at 20.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2190		102	1000	1	11/23/2024 00:54	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	4760	E4 H3	2120	20000	20	11/19/2024 19:02	WG2403915

Sample Narrative:

L1800893-07 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	12600000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	89100		4750	20000	1	11/18/2024 15:42	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:42	WG2403786

Sample Narrative:

L1800893-08 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	5100000		54700	100000	100	11/24/2024 04:28	WG2403211
Fluoride	2460		380	750	5	11/24/2024 04:14	WG2403211
Sulfate	3460000		63700	500000	100	11/24/2024 04:28	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	1360		53.9	100	1	11/19/2024 14:40	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 11:42	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.59	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-08 WG2403119: 7.59 at 20.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2960		102	1000	1	11/23/2024 01:14	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	6730	E4 H3	2120	20000	20	11/19/2024 19:19	WG2403915

Sample Narrative:

L1800893-08 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	12000000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	103000		4750	20000	1	11/18/2024 15:47	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:47	WG2403786

Sample Narrative:

L1800893-09 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4610000		54700	100000	100	11/24/2024 04:55	WG2403211
Fluoride	904		380	750	5	11/24/2024 04:41	WG2403211
Sulfate	3620000		63700	500000	100	11/24/2024 04:55	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:42	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 11:47	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.36	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-09 WG2403119: 7.36 at 20.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2090		102	1000	1	11/23/2024 01:34	WG2406687

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	6740	E4 H3	2120	20000	20	11/19/2024 19:37	WG2403915

Sample Narrative:

L1800893-09 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	19400000		400000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	98500		4750	20000	1	11/18/2024 15:52	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:52	WG2403786

Sample Narrative:

L1800893-10 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	8720000		54700	100000	100	11/24/2024 05:21	WG2403211
Fluoride	5440		380	750	5	11/24/2024 05:08	WG2403211
Sulfate	4610000		63700	500000	100	11/24/2024 05:21	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:43	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	191	E4	43.5	200	1	11/20/2024 11:49	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.39	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-10 WG2403119: 7.39 at 20.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	2540		102	1000	1	11/24/2024 03:15	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	3430	E4 H3	2120	20000	20	11/19/2024 20:33	WG2403915

Sample Narrative:

L1800893-10 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	10900000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	90800		4750	20000	1	11/18/2024 15:56	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 15:56	WG2403786

Sample Narrative:

L1800893-11 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4050000		54700	100000	100	11/24/2024 05:48	WG2403211
Fluoride	1650		380	750	5	11/24/2024 05:35	WG2403211
Sulfate	3530000		63700	500000	100	11/24/2024 05:48	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	119		53.9	100	1	11/19/2024 14:45	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	47.9	E4	43.5	200	1	11/20/2024 11:50	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.53	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-11 WG2403119: 7.53 at 20.3C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1690		102	1000	1	11/24/2024 03:34	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2390	E4 H3	2120	20000	20	11/19/2024 20:50	WG2403915

Sample Narrative:

L1800893-11 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	13300000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	48700		4750	20000	1	11/18/2024 16:22	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 16:22	WG2403786

Sample Narrative:

L1800893-12 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	5670000		54700	100000	100	11/24/2024 06:42	WG2403211
Fluoride	2970		380	750	5	11/24/2024 06:29	WG2403211
Sulfate	3380000		63700	500000	100	11/24/2024 06:42	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	1130		53.9	100	1	11/19/2024 14:46	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 11:55	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.68	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-12 WG2403119: 7.68 at 20.2C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1720		102	1000	1	11/24/2024 03:52	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2540	E4 H3	2120	20000	20	11/19/2024 21:08	WG2403915

Sample Narrative:

L1800893-12 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7760000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	82800		4750	20000	1	11/20/2024 10:53	WG2404883
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 10:53	WG2404883

Sample Narrative:

L1800893-13 WG2404883: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2180000		54700	100000	100	11/24/2024 07:09	WG2403211
Fluoride	2240		380	750	5	11/24/2024 06:55	WG2403211
Sulfate	3210000		63700	500000	100	11/24/2024 07:09	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	117		53.9	100	1	11/19/2024 14:48	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	410		43.5	200	1	11/20/2024 11:56	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.74	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-13 WG2403124: 7.74 at 18.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	795	E4	102	1000	1	11/24/2024 04:54	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	U	H3	2120	20000	20	11/19/2024 21:26	WG2403915

Sample Narrative:

L1800893-13 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7700000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	82400		4750	20000	1	11/20/2024 11:17	WG2404889
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 11:17	WG2404889

Sample Narrative:

L1800893-14 WG2404889: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	2160000		54700	100000	100	11/24/2024 07:36	WG2403211
Fluoride	3220		380	750	5	11/24/2024 07:22	WG2403211
Sulfate	3330000		63700	500000	100	11/24/2024 07:36	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 14:54	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	476		43.5	200	1	11/20/2024 11:58	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.57	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-14 WG2403124: 7.57 at 18.9C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	669	E4	102	1000	1	11/24/2024 05:29	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	2480	E4 H3	2120	20000	20	11/19/2024 21:43	WG2403915

Sample Narrative:

L1800893-14 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	8020000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	89300		4750	20000	1	11/18/2024 16:28	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 16:28	WG2403786

Sample Narrative:

L1800893-15 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	2200000		54700	100000	100	11/24/2024 08:02	WG2403211
Fluoride	1680		380	750	5	11/24/2024 07:49	WG2403211
Sulfate	3160000		63700	500000	100	11/24/2024 08:02	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	141		53.9	100	1	11/19/2024 14:55	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	50.4	E4	43.5	200	1	11/20/2024 11:59	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.59	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-15 WG2403119: 7.59 at 20C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1300		102	1000	1	11/24/2024 05:52	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	2350	E4 H3	2120	20000	20	11/19/2024 22:00	WG2403915

Sample Narrative:

L1800893-15 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7820000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	87400		4750	20000	1	11/18/2024 16:33	WG2403786
Alkalinity,Carbonate	U		4750	20000	1	11/18/2024 16:33	WG2403786

Sample Narrative:

L1800893-16 WG2403786: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2270000		54700	100000	100	11/24/2024 08:29	WG2403211
Fluoride	1790		380	750	5	11/24/2024 08:16	WG2403211
Sulfate	3330000		63700	500000	100	11/24/2024 08:29	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	155		53.9	100	1	11/19/2024 14:57	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 12:00	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.76	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-16 WG2403119: 7.76 at 20C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1000		102	1000	1	11/24/2024 06:15	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	U	H3	2120	20000	20	11/19/2024 22:17	WG2403915

Sample Narrative:

L1800893-16 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	8000000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	103000		4750	20000	1	11/20/2024 07:19	WG2404842
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 07:19	WG2404842

Sample Narrative:

L1800893-17 WG2404842: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2330000		54700	100000	100	11/24/2024 09:24	WG2403211
Fluoride	1440		380	750	5	11/24/2024 09:11	WG2403211
Sulfate	3200000		63700	500000	100	11/24/2024 09:24	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	126		53.9	100	1	11/19/2024 14:58	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 12:01	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.75	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-17 WG2403124: 7.75 at 19C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	877	E4	102	1000	1	11/24/2024 06:33	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2730	E4 H3	2120	20000	20	11/19/2024 22:34	WG2403915

Sample Narrative:

L1800893-17 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7860000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	86100		4750	20000	1	11/20/2024 07:40	WG2404842
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 07:40	WG2404842

Sample Narrative:

L1800893-18 WG2404842: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2190000		54700	100000	100	11/24/2024 09:51	WG2403211
Fluoride	1690		380	750	5	11/24/2024 09:38	WG2403211
Sulfate	3320000		63700	500000	100	11/24/2024 09:51	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	167		53.9	100	1	11/19/2024 15:00	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 12:03	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.70	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-18 WG2403124: 7.7 at 19.1C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	803	E4	102	1000	1	11/24/2024 06:51	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	U	H3	2120	20000	20	11/19/2024 22:51	WG2403915

Sample Narrative:

L1800893-18 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7880000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	91700		4750	20000	1	11/19/2024 16:49	WG2403981
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 16:49	WG2403981

Sample Narrative:

L1800893-19 WG2403981: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	2340000		54700	100000	100	11/24/2024 10:18	WG2403211
Fluoride	2400		380	750	5	11/24/2024 10:05	WG2403211
Sulfate	3300000		63700	500000	100	11/24/2024 10:18	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	109		53.9	100	1	11/19/2024 15:01	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	74.5	E4	43.5	200	1	11/20/2024 12:04	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.59	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-19 WG2403119: 7.59 at 20C

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	836	E4	102	1000	1	11/24/2024 07:08	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
DOC	U	H3	2120	20000	20	11/19/2024 23:09	WG2403915

Sample Narrative:

L1800893-19 WG2403915: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7920000		200000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	85800		4750	20000	1	11/20/2024 10:59	WG2404883
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 10:59	WG2404883

Sample Narrative:

L1800893-20 WG2404883: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2300000		54700	100000	100	11/24/2024 10:45	WG2403211
Fluoride	1540		380	750	5	11/24/2024 10:32	WG2403211
Sulfate	3160000		63700	500000	100	11/24/2024 10:45	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	106		53.9	100	1	11/19/2024 15:03	WG2404175

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	98.9	E4	43.5	200	1	11/20/2024 12:05	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.71	H3	1	11/19/2024 19:20	WG2403124

Sample Narrative:

L1800893-20 WG2403124: 7.71 at 19C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	887	E4	102	1000	1	11/24/2024 08:05	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1670	B1 H3	106	1000	1	11/26/2024 12:43	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7980000		200000	1	11/18/2024 10:10	WG2403359

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	101000		4750	20000	1	11/20/2024 07:42	WG2404603
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 07:42	WG2404603

Sample Narrative:

L1800893-21 WG2404603: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2300000		54700	100000	100	11/24/2024 11:12	WG2403211
Fluoride	1590		380	750	5	11/24/2024 10:58	WG2403211
Sulfate	3160000		63700	500000	100	11/24/2024 11:12	WG2403211

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	127		53.9	100	1	11/19/2024 15:32	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/20/2024 12:06	WG2404874

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.64	H3	1	11/16/2024 22:00	WG2403128

Sample Narrative:

L1800893-21 WG2403128: 7.64 at 18.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	836	E4	102	1000	1	11/24/2024 09:07	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1860	H3	106	1000	1	11/26/2024 13:47	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	9400000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	81100		4750	20000	1	11/20/2024 07:46	WG2404842
Alkalinity,Carbonate	U		4750	20000	1	11/20/2024 07:46	WG2404842

Sample Narrative:

L1800893-22 WG2404842: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	3510000		54700	100000	100	11/22/2024 23:45	WG2403212
Fluoride	452	E4	380	750	5	11/22/2024 23:32	WG2403212
Sulfate	3290000		63700	500000	100	11/22/2024 23:45	WG2403212

Sample Narrative:

L1800893-22 WG2403212: Dilution due to matrix impact on instrumentation at lower dilution

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 15:36	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	75.4	E4	43.5	200	1	11/21/2024 20:56	WG2406151

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.72	H3	1	11/16/2024 22:00	WG2403128

Sample Narrative:

L1800893-22 WG2403128: 7.72 at 18.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1500		102	1000	1	11/24/2024 09:43	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2170	H3	106	1000	1	11/26/2024 14:23	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	7940000		200000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	136000		4750	20000	1	11/19/2024 16:55	WG2403981
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 16:55	WG2403981

Sample Narrative:

L1800893-23 WG2403981: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2020000		54700	100000	100	11/23/2024 00:11	WG2403212
Fluoride	1250		380	750	5	11/22/2024 23:58	WG2403212
Sulfate	2720000		63700	500000	100	11/23/2024 00:11	WG2403212

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	91.0	E4	53.9	100	1	11/19/2024 15:39	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	76.6	E4	43.5	200	1	11/21/2024 20:58	WG2406151

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.90	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-23 WG2403119: 7.9 at 21C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	818	E4	102	1000	1	11/24/2024 10:01	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1440	B1 H3	106	1000	1	11/26/2024 14:41	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	6770000		100000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	135000		4750	20000	1	11/19/2024 17:00	WG2403981
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 17:00	WG2403981

Sample Narrative:

L1800893-24 WG2403981: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1440000		54700	100000	100	11/23/2024 00:36	WG2403212
Fluoride	1650		380	750	5	11/23/2024 00:24	WG2403212
Sulfate	2330000		63700	500000	100	11/23/2024 00:36	WG2403212

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 15:41	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 20:59	WG2406151

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.05	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-24 WG2403119: 8.05 at 19.8C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1810		102	1000	1	11/24/2024 10:20	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	2040	H3	106	1000	1	11/26/2024 15:02	WG2406075

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Dissolved Solids	ND		10000	1	11/18/2024 12:41	WG2403363

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity,Bicarbonate	U		4750	20000	1	11/19/2024 13:41	WG2403985
Alkalinity,Carbonate	U		4750	20000	1	11/19/2024 13:41	WG2403985

Sample Narrative:

L1800893-25 WG2403985: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	U		547	1000	1	11/23/2024 00:49	WG2403212
Fluoride	U		76.1	150	1	11/23/2024 00:49	WG2403212
Sulfate	U		637	5000	1	11/23/2024 00:49	WG2403212

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ammonia Nitrogen	U		53.9	100	1	11/19/2024 15:42	WG2404244

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		43.5	200	1	11/21/2024 21:00	WG2406151

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	6.21	H3	1	11/18/2024 11:40	WG2403119

Sample Narrative:

L1800893-25 WG2403119: 6.21 at 20.6C

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	202	E4	102	1000	1	11/24/2024 10:36	WG2406981

Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DOC	1130	B1 H3	106	1000	1	11/26/2024 15:20	WG2406075

Method Blank (MB)

(MB) R4148527-1 11/18/24 10:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U	E4	10000	10000

L1800177-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800177-01 11/18/24 10:10 • (DUP) R4148527-3 11/18/24 10:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1600000	1590000	1	0.314		10

L1800897-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1800897-06 11/18/24 10:10 • (DUP) R4148527-4 11/18/24 10:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	6810000	6910000	1	1.46		10

Laboratory Control Sample (LCS)

(LCS) R4148527-2 11/18/24 10:10

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8720000	99.1	85.0-115	

Method Blank (MB)

(MB) R4149666-1 11/18/24 12:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Dissolved Solids	U		10000	10000

L1800893-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-05 11/18/24 12:41 • (DUP) R4149666-3 11/18/24 12:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	259000000	250000000	1	3.58		10

L1800897-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800897-01 11/18/24 12:41 • (DUP) R4149666-4 11/18/24 12:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Dissolved Solids	6180000	6160000	1	0.324		10

Laboratory Control Sample (LCS)

(LCS) R4149666-2 11/18/24 12:41

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8640000	98.2	85.0-115	

Method Blank (MB)

(MB) R4147389-2 11/18/24 13:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1799499-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799499-01 11/18/24 14:40 • (DUP) R4147389-3 11/18/24 14:43

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	47800	48400	1	1.28		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1800066-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800066-02 11/18/24 16:14 • (DUP) R4147389-4 11/18/24 16:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	114000	116000	1	2.06		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148104-2 11/19/24 09:08

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800064-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800064-01 11/19/24 09:24 • (DUP) R4148104-4 11/19/24 09:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	159000	165000	1	3.72		20
Alkalinity,Carbonate	29100	22700	1	24.9	R8	20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1800973-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800973-01 11/19/24 11:20 • (DUP) R4148104-6 11/19/24 11:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	1560000	1580000	1	1.65		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148106-2 11/19/24 15:16

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800385-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800385-01 11/19/24 15:31 • (DUP) R4148106-4 11/19/24 15:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	88500	89100	1	0.696		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148105-2 11/19/24 12:19

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800242-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800242-02 11/19/24 12:28 • (DUP) R4148105-3 11/19/24 12:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	205000	206000	1	0.578		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148551-2 11/20/24 07:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800031-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800031-01 11/20/24 07:21 • (DUP) R4148551-3 11/20/24 07:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	94900	94600	1	0.362		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1800977-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-10 11/20/24 09:16 • (DUP) R4148551-4 11/20/24 09:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	507000	517000	1	2.00		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148556-2 11/20/24 07:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800893-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-17 11/20/24 07:19 • (DUP) R4148556-3 11/20/24 07:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	103000	101000	1	1.24		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1801219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801219-01 11/20/24 09:38 • (DUP) R4148556-4 11/20/24 09:44

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	186000	196000	1	5.44		20
Alkalinity,Carbonate	27900	18500	1	40.5	E4 R8	20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148552-2 11/20/24 10:04

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1801329-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801329-01 11/20/24 10:18 • (DUP) R4148552-4 11/20/24 10:23

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	24700	25700	1	4.11		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1801366-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1801366-04 11/20/24 12:51 • (DUP) R4148552-6 11/20/24 12:56

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	325000	332000	1	2.26		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148557-2 11/20/24 10:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		4750	20000
Alkalinity,Carbonate	U		4750	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1800186-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-04 11/20/24 10:41 • (DUP) R4148557-3 11/20/24 10:45

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	124000	126000	1	1.10		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1801469-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1801469-06 11/20/24 12:52 • (DUP) R4148557-4 11/20/24 12:57

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	248000	250000	1	0.956		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4148877-1 11/18/24 16:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	1160		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1799716-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799716-01 11/18/24 18:33 • (DUP) R4148877-3 11/19/24 00:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	569	4690	1	157	R8	15
Fluoride	U	U	1	0.000		15
Sulfate	U	731	1	200	E4 R8	15

L1799732-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799732-01 11/18/24 18:51 • (DUP) R4148877-6 11/19/24 01:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1620	6570	1	121	R8	15
Fluoride	U	151	1	200	R8	15
Sulfate	U	23700	1	200	R8	15

Laboratory Control Sample (LCS)

(LCS) R4148877-2 11/18/24 16:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	37000	92.4	90.0-110	
Fluoride	8000	7680	96.0	90.0-110	
Sulfate	40000	38200	95.5	90.0-110	

L1799716-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1799716-01 11/18/24 18:33 • (MS) R4148877-4 11/19/24 00:50 • (MSD) R4148877-5 11/19/24 01:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	569	41800	41800	103	103	1	90.0-110			0.0208	15
Fluoride	8000	U	7740	7730	96.7	96.6	1	90.0-110			0.0711	15
Sulfate	40000	U	39100	38900	97.7	97.4	1	90.0-110			0.319	15

L1799732-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1799732-01 11/18/24 18:51 • (MS) R4148877-7 11/19/24 01:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	1620	43300	104	1	90.0-110	
Fluoride	8000	U	7790	97.4	1	90.0-110	
Sulfate	40000	U	58000	145	1	90.0-110	M1

Method Blank (MB)

(MB) R4149963-1 11/23/24 23:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1800893-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-02 11/24/24 00:13 • (DUP) R4149963-4 11/24/24 00:26

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	824	1040	5	23.0	R8	15

L1800893-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-02 11/24/24 00:40 • (DUP) R4149963-5 11/24/24 00:53

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5190000	5230000	100	0.812		15
Sulfate	3100000	3120000	100	0.838		15

L1800893-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-03 11/24/24 01:07 • (DUP) R4149963-6 11/24/24 01:20

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1480	1890	5	24.5	R8	15

L1800893-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-03 11/24/24 01:33 • (DUP) R4149963-7 11/24/24 01:47

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	3320000	3370000	100	1.51		15
Sulfate	3010000	3050000	100	1.45		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4149963-2 11/23/24 23:46 • (LCSD) R4149963-3 11/24/24 00:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	40000	41100	41600	103	104	90.0-110			1.18	15
Fluoride	8000	8220	8300	103	104	90.0-110			0.914	15
Sulfate	40000	41500	41900	104	105	90.0-110			0.960	15

Method Blank (MB)

(MB) R4150022-1 11/22/24 23:07

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		547	1000
Fluoride	U		76.1	150
Sulfate	U		637	5000

L1800910-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800910-01 11/23/24 04:40 • (DUP) R4150022-3 11/23/24 04:52

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	70600	70200	1	0.504		15
Fluoride	453	609	1	29.3	R8	15

L1800910-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800910-02 11/23/24 05:31 • (DUP) R4150022-6 11/23/24 05:44

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	59300	59300	1	0.0208		15
Fluoride	227	271	1	17.7	R8	15

Laboratory Control Sample (LCS)

(LCS) R4150022-2 11/22/24 23:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	37800	94.6	90.0-110	
Fluoride	8000	7430	92.9	90.0-110	
Sulfate	40000	38100	95.4	90.0-110	

L1800910-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800910-01 11/23/24 04:40 • (MS) R4150022-4 11/23/24 05:05 • (MSD) R4150022-5 11/23/24 05:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	70600	94400	95700	59.7	62.8	1	90.0-110	M2	M2	1.32	15
Fluoride	8000	453	7220	7400	84.6	86.8	1	90.0-110	M2	M2	2.45	15

L1800910-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800910-02 11/23/24 05:31 • (MS) R4150022-7 11/23/24 05:56

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	59300	86800	68.9	1	90.0-110	M2
Fluoride	8000	227	7560	91.7	1	90.0-110	

Method Blank (MB)

(MB) R4147901-1 11/19/24 14:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ammonia Nitrogen	U		53.9	100

L1800893-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-02 11/19/24 14:22 • (DUP) R4147901-5 11/19/24 14:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ammonia Nitrogen	1550	1580	1	2.36		10

L1800893-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-04 11/19/24 14:28 • (DUP) R4147901-7 11/19/24 14:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ammonia Nitrogen	663	669	1	0.901		10

Laboratory Control Sample (LCS)

(LCS) R4147901-2 11/19/24 14:16

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Ammonia Nitrogen	7500	7250	96.6	90.0-110	

L1800893-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-01 11/19/24 14:18 • (MS) R4147901-3 11/19/24 14:19 • (MSD) R4147901-4 11/19/24 14:21

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Ammonia Nitrogen	5000	392	5100	5070	94.2	93.6	1	90.0-110			0.550	10

L1800893-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800893-03 11/19/24 14:25 • (MS) R4147901-6 11/19/24 14:27

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	ug/l	ug/l	ug/l	%		%	
Ammonia Nitrogen	5000	237	4870	92.7	1	90.0-110	

Method Blank (MB)

(MB) R4147907-1 11/19/24 15:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ammonia Nitrogen	U		53.9	100

L1800893-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-22 11/19/24 15:36 • (DUP) R4147907-5 11/19/24 15:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ammonia Nitrogen	U	U	1	0.000		10

Laboratory Control Sample (LCS)

(LCS) R4147907-2 11/19/24 15:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Ammonia Nitrogen	7500	7290	97.2	90.0-110	

L1800893-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-21 11/19/24 15:32 • (MS) R4147907-3 11/19/24 15:33 • (MSD) R4147907-4 11/19/24 15:35

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Ammonia Nitrogen	5000	127	4870	4820	94.9	93.9	1	90.0-110			0.970	10

QUALITY CONTROL SUMMARY

L1800893-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R4149266-1 11/21/24 18:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate-Nitrite	U		43.5	200

L1800889-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800889-01 11/21/24 18:34 • (DUP) R4149266-3 11/21/24 18:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	105	106	1	0.948	E4	20

L1800893-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-07 11/21/24 18:51 • (DUP) R4149266-6 11/21/24 18:52

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	116	112	1	3.51	E4	20

Laboratory Control Sample (LCS)

(LCS) R4149266-2 11/21/24 18:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2600	104	90.0-110	

L1800889-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800889-01 11/21/24 18:34 • (MS) R4149266-4 11/21/24 18:37 • (MSD) R4149266-5 11/21/24 18:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	105	2750	2640	106	101	1	90.0-110			4.08	20

L1800893-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800893-07 11/21/24 18:51 • (MS) R4149266-7 11/21/24 18:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	116	2610	99.8	1	90.0-110	

QUALITY CONTROL SUMMARY

L1800893-08,09,10,11,12,13,14,15,16,17,18,19,20,21

Method Blank (MB)

(MB) R4148308-1 11/20/24 11:40

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate-Nitrite	U		43.5	200

L1800893-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-08 11/20/24 11:42 • (DUP) R4148308-3 11/20/24 11:44

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1800957-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1800957-06 11/20/24 12:18 • (DUP) R4148308-6 11/20/24 12:19

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4148308-2 11/20/24 11:41

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2560	102	90.0-110	

L1800893-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-08 11/20/24 11:42 • (MS) R4148308-4 11/20/24 11:45 • (MSD) R4148308-5 11/20/24 11:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	U	2690	2690	108	108	1	90.0-110			0.000	20

L1800957-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800957-06 11/20/24 12:18 • (MS) R4148308-7 11/20/24 12:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	U	2590	104	1	90.0-110	

Method Blank (MB)

(MB) R4149270-1 11/21/24 20:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate-Nitrite	U		43.5	200

L1799497-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799497-01 11/21/24 20:44 • (DUP) R4149270-3 11/21/24 20:45

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	1400	1400	1	0.000		20

L1799497-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1799497-02 11/21/24 20:49 • (DUP) R4149270-4 11/21/24 20:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4149270-2 11/21/24 20:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2560	102	90.0-110	

L1799497-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1799497-02 11/21/24 20:49 • (MS) R4149270-5 11/21/24 20:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	U	2520	101	1	90.0-110	

L1799497-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1799497-01 11/21/24 20:44 • (MS) R4149270-6 11/21/24 21:23 • (MSD) R4149270-7 11/21/24 21:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	1400	3840	3830	97.6	97.2	1	90.0-110			0.261	20

L1799497-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1799497-01 11/21/24 20:44 • (MS) R4149270-8 11/21/24 20:46 • (MSD) R4149270-9 11/21/24 20:48

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2500	1400	4230	3820	113	96.8	1	90.0-110	M1		10.2	20

L1800091-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800091-01 11/18/24 11:40 • (DUP) R4147236-2 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.66	7.67	1	0.130		1

Sample Narrative:

OS: 7.66 at 19.6C

DUP: 7.67 at 19.9C

L1800923-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800923-04 11/18/24 11:40 • (DUP) R4147236-3 11/18/24 11:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.33	8.32	1	0.120		1

Sample Narrative:

OS: 8.33 at 19.7C

DUP: 8.32 at 19.9C

Laboratory Control Sample (LCS)

(LCS) R4147236-1 11/18/24 11:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 20C

L1800813-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800813-02 11/19/24 19:20 • (DUP) R4148042-2 11/19/24 19:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.88	7.90	1	0.253		1

Sample Narrative:

OS: 7.88 at 19.5C

DUP: 7.9 at 19.6C

L1800893-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-20 11/19/24 19:20 • (DUP) R4148042-3 11/19/24 19:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.71	7.73	1	0.259		1

Sample Narrative:

OS: 7.71 at 19C

DUP: 7.73 at 19.1C

Laboratory Control Sample (LCS)

(LCS) R4148042-1 11/19/24 19:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 19.8C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

L1800242-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1800242-13 11/16/24 22:00 • (DUP) R4146912-2 11/16/24 22:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.85	7.88	1	0.381		1

Sample Narrative:

OS: 7.85 at 18.1C

DUP: 7.88 at 18.8C

L1800923-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1800923-03 11/16/24 22:00 • (DUP) R4146912-3 11/16/24 22:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.43	8.43	1	0.000		1

Sample Narrative:

OS: 8.43 at 18.7C

DUP: 8.43 at 19.1C

Laboratory Control Sample (LCS)

(LCS) R4146912-1 11/16/24 22:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 19.7C

L1799456-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799456-01 11/20/24 14:01 • (DUP) R4148449-2 11/20/24 14:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.96	6.98	1	0.287		1

Sample Narrative:

OS: 6.96 at 19.4C

DUP: 6.98 at 19.4C

L1801346-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1801346-10 11/20/24 14:01 • (DUP) R4148449-3 11/20/24 14:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.86	7.87	1	0.127		1

Sample Narrative:

OS: 7.86 at 19.4C

DUP: 7.87 at 19.6C

Laboratory Control Sample (LCS)

(LCS) R4148449-1 11/20/24 14:01

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:

LCS: 9.99 at 19.8C

Method Blank (MB)

(MB) R4148140-2 11/19/24 10:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
DOC	U		106	1000

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4148140-1 11/19/24 10:42 • (LCSD) R4148140-3 11/19/24 16:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
DOC	25000	27000	26600	108	106	85.0-115			1.57	20

Method Blank (MB)

(MB) R4151279-2 11/26/24 12:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
DOC	169	E4	106	1000

L1800893-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-21 11/26/24 13:47 • (DUP) R4151279-5 11/26/24 14:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
DOC	1860	1770	1	4.91		20

Laboratory Control Sample (LCS)

(LCS) R4151279-1 11/26/24 11:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
DOC	25000	25200	101	85.0-115	

L1800893-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-20 11/26/24 12:43 • (MS) R4151279-3 11/26/24 13:02 • (MSD) R4151279-4 11/26/24 13:29

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DOC	25000	1670	26400	26800	98.8	100	1	80.0-120			1.58	20

Method Blank (MB)

(MB) R4149827-2 11/22/24 14:28

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	U		102	1000

L1800856-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1800856-10 11/22/24 18:04 • (DUP) R4149827-5 11/22/24 18:22

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	1050	932	1	12.3	E4	20

L1800883-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800883-01 11/22/24 23:18 • (DUP) R4149827-8 11/22/24 23:37

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	1190	1180	1	0.506		20

Laboratory Control Sample (LCS)

(LCS) R4149827-1 11/22/24 14:11

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	24200	96.7	85.0-115	

L1800716-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800716-07 11/22/24 17:00 • (MS) R4149827-3 11/22/24 17:23 • (MSD) R4149827-4 11/22/24 17:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	6370	31200	31100	99.1	98.8	1	85.0-115			0.289	20

L1800879-38 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800879-38 11/22/24 22:17 • (MS) R4149827-6 11/22/24 22:38 • (MSD) R4149827-7 11/22/24 23:00

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	249	24200	24200	96.7	96.9	1	85.0-115			0.207	20

Method Blank (MB)

(MB) R4149828-2 11/22/24 16:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	103		102	1000

Laboratory Control Sample (LCS)

(LCS) R4149828-1 11/22/24 16:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	24300	97.3	85.0-115	

Method Blank (MB)

(MB) R4150019-2 11/24/24 02:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	162		102	1000

L1800893-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-13 11/24/24 04:54 • (DUP) R4150019-5 11/24/24 05:12

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	795	779	1	1.94	E4	20

L1800893-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-21 11/24/24 09:07 • (DUP) R4150019-8 11/24/24 09:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	836	795	1	5.02	E4	20

Laboratory Control Sample (LCS)

(LCS) R4150019-1 11/24/24 02:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	24400	97.7	85.0-115	

L1800893-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-12 11/24/24 03:52 • (MS) R4150019-3 11/24/24 04:14 • (MSD) R4150019-4 11/24/24 04:36

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	1720	26400	26100	98.7	97.6	1	85.0-115			1.07	20

L1800893-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800893-20 11/24/24 08:05 • (MS) R4150019-6 11/24/24 08:27 • (MSD) R4150019-7 11/24/24 08:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	887	25300	25800	97.7	99.7	1	85.0-115			1.96	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H3	Sample was received and / or analysis requested past holding time.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
R8	Sample RPD exceeded the method acceptance limit.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea
Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla
City/State Collected: Joseph City AZ
Please Circle: PT MT CT ET

Phone: 602-733-6110
Client Project #
Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman
Site/Facility ID #
P.O. #

Collected by (signature): [signature]
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #
Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 6

Pace PEOPLE ADVANCING SCIENCE
MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1800895
B237

Acctnum: AMECTAZ
Template: T259142
Prelogin: P1097829
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L-HDPE-NoPres	200.7-250mL HDPE HNO3 <2	200.7-field filter-Diss Fe, Diss Mn-250mL HNO3	200.8-250mL HDPE HNO3 <2	200.8-Field filter-Diss As, Diss Co-250mL HNO3	TOC-SM5310B 250mL amber HCl	DOC-SM5310B-field filter-250mL amber no pres.	Sm4500NH3G-NH3 as N-250mL H2SO4 + Na2S2O3	353.2-NO3+NO2 as N-250mL H2SO4 <2	Remarks	Sample # (lab only)
~~CH-CCR-M44D-1024~~ NCa				~~11-11-24~~	~~1502~~	~~4~~	X	X	X		X							
~~CH-CCR-M54-1024~~ NCa					~~1637~~	~~3~~	X	X	X									
~~CH-CCR-W305-1024~~ NCa					~~1722~~	~~10~~	X	X	X	X	X	X		X	X	X		
~~CH-CCR-MW79A-1024~~ NCa					~~1810~~	~~10~~	X	X	X	X	X	X		X	X	X		
CH-CCR-M67A-1024		WW		11-12-24	1237	10	X	X	X	X	X	X		X	X	X		-01
CH-CCR-M46A-1024					1513	10	X	X	X	X	X	X		X	X	X		-02
CH-CCR-MW65A-1024					1640	10	X	X	X	X	X	X		X	X	X		-03
CH-CCR-HuntB-1024	grab				1727	12	X	X	X	X	X	X	X	X	X	X		-04
CH-CCR-FAP-1024				11-13-24	1148	12	X	X	X	X	X	X	X	X	X	X		-05
CH-CCR-EW01-1024					1220	11	X	X		X	X	X	X	X	X	X		-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 - Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na first 4 shipped 11/14/24
200.8 - Total Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl
M44D 200.7 - Total B, Ca, Be, Li // M54 200.7 - Total B, Total Ca // FAP - add 200.7 - Total Ag
pH ____ Temp ____ Flow ____ Other ____

Samples returned via: __UPS __FedEx __Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
[signature]	11/14/2024	1653	[signature]	

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received:	If preservation required by Login: Date/Time
[signature]	11/15/24	1800	FedEx	multi	274	

Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	Hold:	Condition: NCF / OK
			[signature] 17	11-16-24	0800		

PNPAZ

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L HDPE-NoPres	SM2320B - CO_3 Alkalinity as $CaCO_3$ 125mL	SM2320B - HCO_3 Alkalinity as $CaCO_3$ 125mL	245.1 - Hg, included in 200.7 unfiltered bottle							Remarks	Sample # (lab only)
~~CH-CCR-M44D-1024~~				~~11-11-24~~	~~1502~~	~~4~~													
~~CH-CCR-M45A-1024~~					~~1637~~	~~3~~													
~~CH-CCR-W305-1024~~					~~1722~~	~~10~~				X									
~~CH-CCR-MW74A-1024~~					~~1810~~	~~10~~				X									
CH-CCR-M67A-1024		WW		11-12-24	1237	10				X									-01
CH-CCR-M46A-1024					1513	10				X									-02
CH-CCR-MW69A-1024					1640	10				X									-03
CH-CCR-HuntB-1024					1727	12			X	X	X								-04
CH-CCR-FAP-1024	grab			11-13-24	1148	12			X	X	X								-05
CH-CCR-EW01-1024	↓	↓		↓	1220	11			X	X	X								-06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: first four shipped 11/14/24

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Hamand	11/14/24	1653	Amber Myers
Amber Myers	11/15/24	1800	FedEx
			Received for lab by: (Signature) E. Davis

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: multi 274

Date: 11-16-24 Time: 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: X Y __N

Chain of Custody Page 2 of 6

Pace
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SDG # L1600895

Table #

Acctnum: **AMECTAZ**
Template: **T259142**
Prelogin: **P1097829**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

PNPAZ

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com;natalie.chrismanlaz**

Project Description: **APS-Cholla**

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project #

Lab Project # **AMECTAZ-APSCHOLLA**

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L-HDPE-NoPres	200.7 - 250mL HDPE HNO3	200.7 - Field Filter - Diss Fe, Diss Mn-250mL HNO3	200.8 - 250mL HDPE HNO3	200.8 - Field Filter - Diss As, Diss Co 250mL HNO3	TOC-SM5310B 250mL amber HCl	DOC-SM5310 B - field filter - 250mL amber nopres	SM4500NH3G - NH3 as N - 250mL H_2SO_4	353.2 - NO_3 + NO_2 as N - 250mL H_2SO_4	Remarks	Sample # (lab only)
CH-CCR-EW02-1024	Grab	WW		11-13-24	1242	11	X	X	X	X	X	X	X	X	X	X		-07
CH-CCR-GSX4-1024					1259	11	X	X	X	X	X	X	X	X	X	X		-08
CH-CCR-EW03-1024					1317	11	X	X	X	X	X	X	X	X	X	X		-01
CH-CCR-GSX3-1024					1337	11	X	X	X	X	X	X	X	X	X	X		-10
CH-CCR-GSX1R-1024					1352	11	X	X	X	X	X	X	X	X	X	X		-11
CH-CCR-EW04-1024					1412	11	X	X	X	X	X	X	X	X	X	X		-12
CH-CCR-Petro-1024					1521	11	X	X	X	X	X	X	X	X	X	X		-13
CH-CCR-Tanner-1024					1545	11	X	X	X	X	X	X	X	X	X	X		-14
CH-CCR-TWX3-1024					1604	11	X	X	X	X	X	X	X	X	X	X		-15
CH-CCR-TWX4-1024					1620	11	X	X	X	X	X	X	X	X	X	X		-16

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 - Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na
200.8 - Total Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Hamrand	11/14/24	1653	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/15/24	1800	FedEx
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			17

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 274
multi

Date: 11-16-24 Time: 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 3 of 6

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
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SDG # L1800897

Table #

Acctnum: **AMECTAZ**
Template: **T259142**
Prelogin: **P1097829**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

PNPA7

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismaniaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE NoPres	TDS 1L HDPE NoPres	SM2320B-CO3 Alkalinity as CaCO3 125mL	SM2320B-HCO3 Alkalinity as CaCO3 125mL	245.1-Hg, included in 200.7 unfiltered bottle						Remarks	Sample # (lab only)
CH-CCR-EW02-1024	Grab	WW		11-13-24	1242	11			X	X	X							-07
CH-CCR-GSX4-1024					1259	11			X	X	X							-08
CH-CCR-EW03-1024					1317	11			X	X	X							-09
CH-CCR-GSX3-1024					1337	11			X	X	X							-10
CH-CCR-GSX1R-1024					1352	11			X	X	X							-11
CH-CCR-EW04-1024					1412	11			X	X	X							-12
CH-CCR-Petro-1024					1521	11			X	X	X							-13
CH-CCR-Tanner-1024					1545	11			X	X	X							-14
CH-CCR-TWX3-1024					1604	11			X	X	X							-15
CH-CCR-TWX4-1024					1620	11			X	X	X							-16

Chain of Custody Page 4 of 4

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SDG # L1800893

Table #

Acctnum: AMECTAZ
Template: T259142
Prelogin: P1097829
PM: 288 - Daphne Richards
PB:

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Garnaud	11/14/24	1653	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/15/24	1800	FedEx
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Eric Dann 17

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 274

Date: 11-16-24 Time: 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPAT

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description: APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project # AMECTAZ-APSCHOLLA

Collected by (print): Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 5 of 6

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L18 00893

Table #

Acctnum: AMECTAZ
Template: T259142
Prelogin: P1097829
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L-HDPE-NoPres	200.7 - 250mL HDPE - HNO3	200.7 - field filter - Diss. Fe, Diss. Mn - 250mL HNO3	200.8 - 250mL HDPE - HNO3	200.8 - field filter - Diss. As, Diss. Co - 250mL HNO3	TOC - SM5310B - 250mL amber - HCl	DOC - SM5310B - field filter - 250mL amber no pres.	SM4500 NH3G - NH3 as N - 250mL H2SO4 + Na2S2O3	353.2 - NO3 + NO2 as N - 250mL H2SO4	Remarks	Sample # (lab only)
CH-CCR-TWX5-1024	grab	WW		11-13-24	1638	11	X	X	X	X	X	X	X	X	X	X		-17
CH-CCR-TWX6-1024					1646	11	X	X	X	X	X	X	X	X	X	X		-18
CH-CCR-TWX7-1024					1655	11	X	X	X	X	X	X	X	X	X	X		-19
CH-CCR-TWX8-1024					1710	11	X	X	X	X	X	X	X	X	X	X		-20
CH-CCR-TWX9-1024					1720	11	X	X	X	X	X	X	X	X	X	X		-21
CH-CCR-TWX10-1024					1733	11	X	X	X	X	X	X	X	X	X	X		-22
CH-CCR-BAPTD-1024	grab			11-14-24	0923	11	X	X	X	X	X	X	X	X	X	X		-23
CH-CCR-BAP-1024	Comp				0953	11	X	X	X	X	X	X	X	X	X	X		-24
~~CH-CCR-MSG-1024~~	grab				1040	11	X	X	X	X	X	X	X	X	X	X		-25
~~CH-CCR-FD03-1024~~								~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		-26

* Matrix: CH-CCR-EB01-1024
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7 - Total B, Ca, Be, Li, Fe, Mn ; K, Mg, Na
200.8 - Total Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
[signature]	11/14/24	1653	[signature]		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received:
[signature]	11/15/24	1800	FedEx	multi	274
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:
			[signature] 17	11-16-24	0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPAZ

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To:
samantha.oshea@wsp.com;natalie.chrismanlaz

Project Description:
APS-Cholla

City/State Collected: Joseph City AZ

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #

Lab Project #
AMECTAZ-APSCHOLLA

Collected by (print):
Brad Hartman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl, Fl, SO4, pH 125mlHDPE-NoPres	TDS 1L-HDPE-NoPres	SM2320B-CO3 Alkalinity as CaCO3 125mL	SM2320B-HCO3 Alkalinity as CaCO3 125mL	245.1-Hg, included in 200.7 unfiltered bottle						Remarks	Sample # (lab only)
CH-CCR-TWX5-1024	grab	WW		11-13-24	1638	11			X	X	X							-17
CH-CCR-TWX6-1024					1646	11			X	X	X							-18
CH-CCR-TWX7-1024					1655	11			X	X	X							-19
CH-CCR-TWX8-1024					1710	11			X	X	X							-20
CH-CCR-TWX9-1024					1720	11			X	X	X							-21
CH-CCR-TWX10-1024					1733	11			X	X	X							-22
CH-CCR-BAPTD-1024				11-14-24	0923	11			X	X	X							-23
CH-CCR-TBAP-1024	Comp				0953	11			X	X	X							-24
CH-CCR-EB01-1024	grab				1040	11			X	X	X							-25
																		-26

Chain of Custody Page 6 of 6

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1800977

Table #

Acctnum: **AMECTAZ**
Template: **T259142**
Prelogin: **P1097829**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Nicolas Garnand	11/14/24	1653	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/15/24	1800	FedEx
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 274
multi's

Date: 11-16-24 Time: 0800

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

PNPAZ

Fed Ex tracking #	Gun ID	Temperature
N/A	TA9	1.0+0=1.0
↓	↓	0.2+0=0.2
		0.6+0=0.6
		0.3+0=0.3
		1.2+0=1.2
		1.6+0=1.6
		0.7+0=0.7
	↓	1.7+0=1.7
↓		1.4+0=1.4

Eli Dossett
Name

11-16-24
Date

L1800895

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 10, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1800893 WG2404282
Pace Project No.: 10716376

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10716376001	**CH-CCR-M67A-1024**	Water	11/12/24 12:37	11/20/24 10:05
10716376002	**CH-CCR-M46A-1024**	Water	11/12/24 15:13	11/20/24 10:05
10716376003	**CH-CCR-M65A-1024**	Water	11/12/24 16:40	11/20/24 10:05
10716376004	**CH-CCR-HUNTB-1024**	Water	11/12/24 17:27	11/20/24 10:05
10716376005	**CH-CCR-FAP-1024**	Water	11/13/24 11:48	11/20/24 10:05
10716376006	**CH-CCR-EW01-1024**	Water	11/13/24 12:20	11/20/24 10:05
10716376007	**CH-CCR-EW02-1024**	Water	11/13/24 12:42	11/20/24 10:05
10716376008	**CH-CCR-GSX4-1024**	Water	11/13/24 12:59	11/20/24 10:05
10716376009	**CH-CCR-EW03-1024**	Water	11/13/24 13:17	11/20/24 10:05
10716376010	**CH-CCR-GSX3-1024**	Water	11/13/24 13:37	11/20/24 10:05
10716376011	**CH-CCR-GSX1R-1024**	Water	11/13/24 13:52	11/20/24 10:05
10716376012	**CH-CCR-EW04-1024**	Water	11/13/24 14:12	11/20/24 10:05
10716376013	**CH-CCR-PETRO-1024**	Water	11/13/24 15:21	11/20/24 10:05
10716376014	**CH-CCR-TANNER-1024**	Water	11/13/24 15:45	11/20/24 10:05
10716376015	**CH-CCR-TWX3-1024**	Water	11/13/24 16:04	11/20/24 10:05
10716376016	**CH-CCR-TWX4-1024**	Water	11/13/24 16:20	11/20/24 10:05
10716376017	**CH-CCR-TWX5-1024**	Water	11/13/24 16:38	11/20/24 10:05
10716376018	**CH-CCR-TWX6-1024**	Water	11/13/24 16:46	11/20/24 10:05
10716376019	**CH-CCR-TWX7-1024**	Water	11/13/24 16:55	11/20/24 10:05
10716376020	**CH-CCR-TWX8-1024**	Water	11/13/24 17:10	11/20/24 10:05
10716376021	**CH-CCR-TWX9-1024**	Water	11/13/24 17:20	11/20/24 10:05
10716376022	**CH-CCR-TWX10-1024**	Water	11/13/24 17:33	11/20/24 10:05
10716376023	**CH-CCR-BAPTD-1024**	Water	11/14/24 09:23	11/20/24 10:05
10716376024	**CH-CCR-BAP-1024**	Water	11/14/24 09:53	11/20/24 10:05
10716376025	**CH-CCR-EB01-1024**	Water	11/14/24 10:40	11/20/24 10:05

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10716376001	**CH-CCR-M67A-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376002	**CH-CCR-M46A-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376003	**CH-CCR-M65A-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376004	**CH-CCR-HUNTB-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376005	**CH-CCR-FAP-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	12	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376006	**CH-CCR-EW01-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376007	**CH-CCR-EW02-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376008	**CH-CCR-GSX4-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376009	**CH-CCR-EW03-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376010	**CH-CCR-GSX3-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376011	**CH-CCR-GSX1R-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376012	**CH-CCR-EW04-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
		EPA 245.1	LMW	1	PASI-M
10716376013	**CH-CCR-PETRO-1024**	EPA 200.7	SMB	8	PASI-M

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 200.8	IMB	11	PASI-M
10716376014	**CH-CCR-TANNER-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376015	**CH-CCR-TWX3-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376016	**CH-CCR-TWX4-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376017	**CH-CCR-TWX5-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376018	**CH-CCR-TWX6-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376019	**CH-CCR-TWX7-1024**	EPA 200.7	SMB	8	PASI-M
		EPA 200.8	IMB	11	PASI-M
10716376020	**CH-CCR-TWX8-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376021	**CH-CCR-TWX9-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376022	**CH-CCR-TWX10-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376023	**CH-CCR-BAPTD-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376024	**CH-CCR-BAP-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
10716376025	**CH-CCR-EB01-1024**	EPA 200.7	IP	8	PASI-M
		EPA 200.8	NN2	11	PASI-M
		EPA 245.1	LMW	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-M67A-1024 **Lab ID: 10716376001** Collected: 11/12/24 12:37 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:25	7440-41-7	
Boron	**332**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:25	7440-42-8	
Calcium	**482000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:25	7440-70-2	P6
Iron	**3410**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:25	7439-89-6	
Magnesium	**191000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:25	7439-95-4	
Manganese	**1290**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:25	7439-96-5	
Potassium	**10700**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:25	7440-09-7	
Sodium	**805000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:36	7440-23-5	P6
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 14:01	7440-36-0	D3
Arsenic	**4.6**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 14:01	7440-38-2	
Barium	**21.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 14:01	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 14:01	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 14:01	7440-47-3	D3
Cobalt	**4.3**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 14:01	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 14:01	7439-92-1	D3
Lithium	**123**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 14:01	7439-93-2	
Molybdenum	**2.4J**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 14:01	7439-98-7	D3
Selenium	**0.46J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 14:01	7782-49-2	D3
Thallium	**0.16J**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 14:01	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/02/24 06:17	12/03/24 10:56	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-M46A-1024 **Lab ID: 10716376002** Collected: 11/12/24 15:13 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:31	7440-41-7	
Boron	**625**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:31	7440-42-8	
Calcium	**789000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:31	7440-70-2	
Iron	**6350**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:31	7439-89-6	
Magnesium	**170000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:31	7439-95-4	
Manganese	**4040**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:31	7439-96-5	
Potassium	**13700**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:31	7440-09-7	
Sodium	**2900000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:07	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 14:07	7440-36-0	D3
Arsenic	**7.4**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 14:07	7440-38-2	
Barium	**17.4**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 14:07	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 14:07	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 14:07	7440-47-3	D3
Cobalt	**1.3J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 14:07	7440-48-4	D3
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 14:07	7439-92-1	D3
Lithium	**253**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 14:07	7439-93-2	
Molybdenum	**9.2**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 14:07	7439-98-7	
Selenium	**0.34J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 14:07	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 14:07	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/02/24 06:17	12/03/24 10:58	7439-97-6	

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-M65A-1024 **Lab ID: 10716376003** Collected: 11/12/24 16:40 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:33	7440-41-7	
Boron	**9620**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:33	7440-42-8	
Calcium	**683000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:33	7440-70-2	
Iron	**885**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:33	7439-89-6	
Magnesium	**239000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:33	7439-95-4	
Manganese	**294**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:33	7439-96-5	
Potassium	**25400**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:33	7440-09-7	
Sodium	**1790000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:41	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:01	7440-36-0	D3
Arsenic	**3.3**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:01	7440-38-2	
Barium	**20.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:01	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:01	7440-43-9	D3
Chromium	**3.3J**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:01	7440-47-3	D3
Cobalt	**2.3J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:01	7440-48-4	D3
Lead	**0.56J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:01	7439-92-1	D3
Lithium	**430**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:01	7439-93-2	
Molybdenum	**96.9**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:01	7439-98-7	
Selenium	**0.83J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:01	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 22:48	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	12/02/24 06:17	12/03/24 10:59	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-HUNTB-1024 **Lab ID: 10716376004** Collected: 11/12/24 17:27 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:34	7440-41-7	
Boron	**35400**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:09	7440-42-8	
Calcium	**760000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:34	7440-70-2	
Iron	**34.7J**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:34	7439-89-6	
Magnesium	**282000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:34	7439-95-4	
Manganese	**1440**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:34	7439-96-5	
Potassium	**33200**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:34	7440-09-7	
Sodium	**3490000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:09	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:07	7440-36-0	D3
Arsenic	**<0.66**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:07	7440-38-2	D3
Barium	**10.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:07	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:07	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:07	7440-47-3	D3
Cobalt	**6.3**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:07	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:07	7439-92-1	D3
Lithium	**437**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:07	7439-93-2	
Molybdenum	**250**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:07	7439-98-7	
Selenium	**1.0J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:07	7782-49-2	D3
Thallium	**0.18J**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 22:55	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 10:52	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-FAP-1024 **Lab ID: 10716376005** Collected: 11/13/24 11:48 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**4.8J**	ug/L	50.0	4.4	10	11/26/24 10:20	12/05/24 16:43	7440-41-7	D3
Boron	**1120000**	ug/L	15000	1600	100	11/26/24 10:20	12/05/24 17:01	7440-42-8	
Calcium	**288000**	ug/L	5000	318	10	11/26/24 10:20	12/05/24 16:43	7440-70-2	
Iron	**335J**	ug/L	500	74.6	10	11/26/24 10:20	12/05/24 16:43	7439-89-6	D3
Magnesium	**19600000**	ug/L	50000	2890	100	11/26/24 10:20	12/05/24 17:01	7439-95-4	
Manganese	**50700**	ug/L	50.0	5.0	10	11/26/24 10:20	12/05/24 16:43	7439-96-5	
Potassium	**1050000**	ug/L	25000	1080	10	11/26/24 10:20	12/05/24 16:43	7440-09-7	
Sodium	**56000000**	ug/L	500000	22700	500	11/26/24 10:20	12/05/24 17:07	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**114**	ug/L	25.0	3.0	50	11/26/24 10:05	12/06/24 12:17	7440-36-0	
Arsenic	**754**	ug/L	25.0	6.6	50	11/26/24 10:05	12/06/24 12:17	7440-38-2	
Barium	**127**	ug/L	15.0	4.5	50	11/26/24 10:05	12/06/24 12:17	7440-39-3	
Cadmium	**<1.8**	ug/L	4.0	1.8	50	11/26/24 10:05	12/06/24 12:17	7440-43-9	D3
Chromium	**<25.0**	ug/L	100	25.0	50	11/26/24 10:05	12/06/24 12:17	7440-47-3	D3
Cobalt	**12.3J**	ug/L	25.0	2.0	50	11/26/24 10:05	12/06/24 12:17	7440-48-4	D3
Lead	**<3.2**	ug/L	25.0	3.2	50	11/26/24 10:05	12/06/24 12:17	7439-92-1	D3
Lithium	**11700**	ug/L	25.0	10.2	50	11/26/24 10:05	12/06/24 12:17	7439-93-2	
Molybdenum	**666**	ug/L	25.0	5.7	50	11/26/24 10:05	12/06/24 12:17	7439-98-7	
Selenium	**259**	ug/L	25.0	3.1	50	11/26/24 10:05	12/06/24 12:17	7782-49-2	
Silver	**<2.9**	ug/L	25.0	2.9	50	11/26/24 10:05	12/06/24 12:17	7440-22-4	D3
Thallium	**<1.3**	ug/L	5.0	1.3	50	11/26/24 10:05	12/06/24 12:17	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.74**	ug/L	2.0	0.74	1	11/26/24 11:05	11/27/24 10:56	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EW01-1024 **Lab ID: 10716376006** Collected: 11/13/24 12:20 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:38	7440-41-7	
Boron	**3950**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:38	7440-42-8	
Calcium	**746000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:38	7440-70-2	
Iron	**1500**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:38	7439-89-6	
Magnesium	**253000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:38	7439-95-4	
Manganese	**4110**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:38	7439-96-5	
Potassium	**8190**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:38	7440-09-7	
Sodium	**2160000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:11	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:26	7440-36-0	D3
Arsenic	**<0.66**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:26	7440-38-2	D3
Barium	**12.2**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:26	7440-39-3	
Cadmium	**0.20J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:26	7440-43-9	D3
Chromium	**5.7J**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:26	7440-47-3	D3
Cobalt	**1.6J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:26	7440-48-4	D3
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:26	7439-92-1	D3
Lithium	**414**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:26	7439-93-2	
Molybdenum	**17.5**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:26	7439-98-7	
Selenium	**8.9**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:26	7782-49-2	
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:14	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 10:58	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EW02-1024 **Lab ID: 10716376007** Collected: 11/13/24 12:42 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:40	7440-41-7	
Boron	**36200**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:13	7440-42-8	
Calcium	**762000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:40	7440-70-2	
Iron	**29100**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:40	7439-89-6	
Magnesium	**489000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:40	7439-95-4	
Manganese	**3680**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:40	7439-96-5	
Potassium	**14600**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:40	7440-09-7	
Sodium	**4310000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:13	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:33	7440-36-0	D3
Arsenic	**8.8**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:33	7440-38-2	
Barium	**11.0**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:33	7440-39-3	
Cadmium	**0.45**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:33	7440-43-9	
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:33	7440-47-3	D3
Cobalt	**2.4J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:33	7440-48-4	D3
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:33	7439-92-1	D3
Lithium	**648**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:33	7439-93-2	
Molybdenum	**115**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:33	7439-98-7	
Selenium	**7.6**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:33	7782-49-2	
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:20	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 10:59	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-GSX4-1024 **Lab ID: 10716376008** Collected: 11/13/24 12:59 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:42	7440-41-7	
Boron	**25000**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:14	7440-42-8	
Calcium	**718000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:42	7440-70-2	
Iron	**2100**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:42	7439-89-6	
Magnesium	**221000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:42	7439-95-4	
Manganese	**3680**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:42	7439-96-5	
Potassium	**26800**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:42	7440-09-7	
Sodium	**3090000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:14	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:39	7440-36-0	D3
Arsenic	**17.8**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:39	7440-38-2	
Barium	**7.8**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:39	7440-39-3	
Cadmium	**0.42**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:39	7440-43-9	
Chromium	**98.9**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:39	7440-47-3	
Cobalt	**0.98J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:39	7440-48-4	D3
Lead	**1.3J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:39	7439-92-1	D3
Lithium	**410**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:39	7439-93-2	
Molybdenum	**441**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:39	7439-98-7	
Selenium	**0.72J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:39	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:26	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:03	7439-97-6	

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EW03-1024 **Lab ID: 10716376009** Collected: 11/13/24 13:17 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:47	7440-41-7	
Boron	**17800**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:47	7440-42-8	
Calcium	**650000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:47	7440-70-2	
Iron	**5000**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:47	7439-89-6	
Magnesium	**280000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:47	7439-95-4	
Manganese	**2120**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:47	7439-96-5	
Potassium	**21200**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:47	7440-09-7	
Sodium	**2770000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:16	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:52	7440-36-0	D3
Arsenic	**1.8J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:52	7440-38-2	D3
Barium	**8.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:52	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:52	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:52	7440-47-3	D3
Cobalt	**2.6**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:52	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:52	7439-92-1	D3
Lithium	**478**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:52	7439-93-2	
Molybdenum	**394**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:52	7439-98-7	
Selenium	**3.9**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:52	7782-49-2	
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:39	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:05	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-GSX3-1024 **Lab ID: 10716376010** Collected: 11/13/24 13:37 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:49	7440-41-7	
Boron	**52400**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:18	7440-42-8	
Calcium	**832000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:49	7440-70-2	
Iron	**537**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:49	7439-89-6	
Magnesium	**566000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:49	7439-95-4	
Manganese	**355**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:49	7439-96-5	
Potassium	**52000**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:49	7440-09-7	
Sodium	**4910000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:18	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 17:58	7440-36-0	D3
Arsenic	**16.7**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 17:58	7440-38-2	
Barium	**5.3**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 17:58	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 17:58	7440-43-9	D3
Chromium	**4.7J**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 17:58	7440-47-3	D3
Cobalt	**2.0J**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 17:58	7440-48-4	D3
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 17:58	7439-92-1	D3
Lithium	**583**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 17:58	7439-93-2	
Molybdenum	**48.6**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 17:58	7439-98-7	
Selenium	**1.0J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 17:58	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:46	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:06	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-GSX1R-1024 **Lab ID: 10716376011** Collected: 11/13/24 13:52 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:51	7440-41-7	
Boron	**15000**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:51	7440-42-8	P6
Calcium	**680000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:51	7440-70-2	P6
Iron	**39.9J**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:51	7439-89-6	
Magnesium	**255000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:51	7439-95-4	P6
Manganese	**1030**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:51	7439-96-5	
Potassium	**27700**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:51	7440-09-7	
Sodium	**2650000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:24	7440-23-5	P6
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:05	7440-36-0	D3
Arsenic	**0.84J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:05	7440-38-2	D3
Barium	**9.2**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:05	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:05	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:05	7440-47-3	D3
Cobalt	**2.9**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:05	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:05	7439-92-1	D3
Lithium	**461**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:05	7439-93-2	
Molybdenum	**431**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:05	7439-98-7	
Selenium	**3.9**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:05	7782-49-2	
Thallium	**0.16J**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:52	7440-28-0	D3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:08	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EW04-1024 **Lab ID: 10716376012** Collected: 11/13/24 14:12 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:55	7440-41-7	
Boron	**31100**	ug/L	3750	400	25	11/26/24 10:20	12/05/24 16:34	7440-42-8	
Calcium	**711000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:55	7440-70-2	
Iron	**270**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:55	7439-89-6	
Magnesium	**188000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:55	7439-95-4	
Manganese	**1020**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:55	7439-96-5	
Potassium	**25400**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:55	7440-09-7	
Sodium	**3330000**	ug/L	25000	1140	25	11/26/24 10:20	12/05/24 16:34	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:18	7440-36-0	D3
Arsenic	**4.0**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:18	7440-38-2	
Barium	**10.4**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:18	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:18	7440-43-9	D3
Chromium	**2.9J**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:18	7440-47-3	D3
Cobalt	**3.7**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:18	7440-48-4	
Lead	**0.70J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:18	7439-92-1	D3
Lithium	**389**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:18	7439-93-2	
Molybdenum	**264**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:18	7439-98-7	
Selenium	**0.76J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:18	7782-49-2	D3
Thallium	**0.69**	ug/L	0.50	0.13	5	11/26/24 10:05	12/03/24 23:58	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 11:05	11/27/24 11:09	7439-97-6	

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-PETRO-1024 **Lab ID: 10716376013** Collected: 11/13/24 15:21 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:56	7440-41-7	
Boron	**3660**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:56	7440-42-8	
Calcium	**631000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:56	7440-70-2	
Iron	**46.8J**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:56	7439-89-6	
Magnesium	**234000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:56	7439-95-4	
Manganese	**1640**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:56	7439-96-5	
Potassium	**16800**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:56	7440-09-7	
Sodium	**1480000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:45	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:30	7440-36-0	D3
Arsenic	**1.9J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:30	7440-38-2	D3
Barium	**10.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:30	7440-39-3	
Cadmium	**<0.18**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:30	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:30	7440-47-3	D3
Cobalt	**10.9**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:30	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:30	7439-92-1	D3
Lithium	**155**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:30	7439-93-2	
Molybdenum	**25.9**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:30	7439-98-7	
Selenium	**<0.31**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:30	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:17	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TANNER-1024 **Lab ID: 10716376014** Collected: 11/13/24 15:45 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 14:58	7440-41-7	
Boron	**3720**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 14:58	7440-42-8	
Calcium	**618000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 14:58	7440-70-2	
Iron	**42.5J**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 14:58	7439-89-6	
Magnesium	**250000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 14:58	7439-95-4	
Manganese	**1730**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 14:58	7439-96-5	
Potassium	**17800**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 14:58	7440-09-7	
Sodium	**1380000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:50	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:43	7440-36-0	D3
Arsenic	**1.4J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:43	7440-38-2	D3
Barium	**9.3**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:43	7440-39-3	
Cadmium	**0.18J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:43	7440-43-9	D3
Chromium	**<2.5**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:43	7440-47-3	D3
Cobalt	**10**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:43	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:43	7439-92-1	D3
Lithium	**165**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:43	7439-93-2	
Molybdenum	**19.9**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:43	7439-98-7	
Selenium	**0.93J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:43	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:24	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX3-1024 **Lab ID: 10716376015** Collected: 11/13/24 16:04 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:00	7440-41-7	
Boron	**3030**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:00	7440-42-8	
Calcium	**568000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:00	7440-70-2	
Iron	**182**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:00	7439-89-6	
Magnesium	**188000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:00	7439-95-4	
Manganese	**3270**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:00	7439-96-5	
Potassium	**13100**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:00	7440-09-7	
Sodium	**1490000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:52	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:50	7440-36-0	D3
Arsenic	**1.5J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:50	7440-38-2	D3
Barium	**8.5**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:50	7440-39-3	
Cadmium	**0.35J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:50	7440-43-9	D3
Chromium	**33.8**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:50	7440-47-3	
Cobalt	**13.6**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:50	7440-48-4	
Lead	**0.64J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:50	7439-92-1	D3
Lithium	**175**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:50	7439-93-2	
Molybdenum	**42.1**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:50	7439-98-7	
Selenium	**0.51J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:50	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:30	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX4-1024 **Lab ID: 10716376016** Collected: 11/13/24 16:20 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:37	7440-41-7	
Boron	**3180**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:37	7440-42-8	
Calcium	**648000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:37	7440-70-2	
Iron	**1630**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:37	7439-89-6	
Magnesium	**217000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:37	7439-95-4	
Manganese	**3660**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:37	7439-96-5	
Potassium	**14700**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:37	7440-09-7	
Sodium	**1540000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:54	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 18:56	7440-36-0	D3
Arsenic	**3.7**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 18:56	7440-38-2	
Barium	**8.4**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 18:56	7440-39-3	
Cadmium	**0.40**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 18:56	7440-43-9	
Chromium	**42.2**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 18:56	7440-47-3	
Cobalt	**14.3**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 18:56	7440-48-4	
Lead	**0.54J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 18:56	7439-92-1	D3
Lithium	**179**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 18:56	7439-93-2	
Molybdenum	**42.8**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 18:56	7439-98-7	
Selenium	**0.51J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 18:56	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:43	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX5-1024 **Lab ID: 10716376017** Collected: 11/13/24 16:38 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:42	7440-41-7	
Boron	**2830**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:42	7440-42-8	
Calcium	**629000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:42	7440-70-2	
Iron	**1170**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:42	7439-89-6	
Magnesium	**207000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:42	7439-95-4	
Manganese	**3190**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:42	7439-96-5	
Potassium	**16000**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:42	7440-09-7	
Sodium	**1570000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:56	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 19:09	7440-36-0	D3
Arsenic	**1.4J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 19:09	7440-38-2	D3
Barium	**8.8**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 19:09	7440-39-3	
Cadmium	**0.72**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 19:09	7440-43-9	
Chromium	**324**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 19:09	7440-47-3	
Cobalt	**25.6**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 19:09	7440-48-4	
Lead	**1.6J**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 19:09	7439-92-1	D3
Lithium	**192**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 19:09	7439-93-2	
Molybdenum	**104**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 19:09	7439-98-7	
Selenium	**0.80J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 19:09	7782-49-2	D3
Thallium	**0.14J**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:49	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX6-1024 **Lab ID: 10716376018** Collected: 11/13/24 16:46 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:44	7440-41-7	
Boron	**3510**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:44	7440-42-8	
Calcium	**647000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:44	7440-70-2	
Iron	**79.3**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:44	7439-89-6	
Magnesium	**223000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:44	7439-95-4	
Manganese	**3090**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:44	7439-96-5	
Potassium	**13000**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:44	7440-09-7	
Sodium	**1470000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 16:58	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 19:15	7440-36-0	D3
Arsenic	**2.5**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 19:15	7440-38-2	
Barium	**8.2**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 19:15	7440-39-3	
Cadmium	**0.36J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 19:15	7440-43-9	D3
Chromium	**12.9**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 19:15	7440-47-3	
Cobalt	**12.9**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 19:15	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 19:15	7439-92-1	D3
Lithium	**170**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 19:15	7439-93-2	
Molybdenum	**41.2**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 19:15	7439-98-7	
Selenium	**<0.31**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 19:15	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 00:56	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX7-1024 **Lab ID: 10716376019** Collected: 11/13/24 16:55 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 10:20	12/05/24 15:46	7440-41-7	
Boron	**2870**	ug/L	150	16.0	1	11/26/24 10:20	12/05/24 15:46	7440-42-8	
Calcium	**605000**	ug/L	500	31.8	1	11/26/24 10:20	12/05/24 15:46	7440-70-2	
Iron	**162**	ug/L	50.0	7.5	1	11/26/24 10:20	12/05/24 15:46	7439-89-6	
Magnesium	**196000**	ug/L	500	28.9	1	11/26/24 10:20	12/05/24 15:46	7439-95-4	
Manganese	**3460**	ug/L	5.0	0.50	1	11/26/24 10:20	12/05/24 15:46	7439-96-5	
Potassium	**15200**	ug/L	2500	108	1	11/26/24 10:20	12/05/24 15:46	7440-09-7	
Sodium	**1620000**	ug/L	10000	454	10	11/26/24 10:20	12/05/24 17:00	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.30**	ug/L	2.5	0.30	5	11/26/24 10:05	12/04/24 19:22	7440-36-0	D3
Arsenic	**1.0J**	ug/L	2.5	0.66	5	11/26/24 10:05	12/04/24 19:22	7440-38-2	D3
Barium	**6.9**	ug/L	1.5	0.45	5	11/26/24 10:05	12/04/24 19:22	7440-39-3	
Cadmium	**0.40J**	ug/L	0.40	0.18	5	11/26/24 10:05	12/04/24 19:22	7440-43-9	D3
Chromium	**58.8**	ug/L	10.0	2.5	5	11/26/24 10:05	12/04/24 19:22	7440-47-3	
Cobalt	**14.5**	ug/L	2.5	0.20	5	11/26/24 10:05	12/04/24 19:22	7440-48-4	
Lead	**<0.32**	ug/L	2.5	0.32	5	11/26/24 10:05	12/04/24 19:22	7439-92-1	D3
Lithium	**189**	ug/L	2.5	1.0	5	11/26/24 10:05	12/04/24 19:22	7439-93-2	
Molybdenum	**43.0**	ug/L	2.5	0.57	5	11/26/24 10:05	12/04/24 19:22	7439-98-7	
Selenium	**0.52J**	ug/L	2.5	0.31	5	11/26/24 10:05	12/04/24 19:22	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 10:05	12/04/24 01:02	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX8-1024 **Lab ID: 10716376020** Collected: 11/13/24 17:10 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:36	7440-41-7	
Boron	**3120**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:36	7440-42-8	
Calcium	**571000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:36	7440-70-2	
Iron	**30.6J**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:36	7439-89-6	
Magnesium	**204000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:36	7439-95-4	
Manganese	**4890**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:36	7439-96-5	
Potassium	**19300**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:36	7440-09-7	
Sodium	**1680000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:19	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:04	7440-36-0	D3
Arsenic	**0.83J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:04	7440-38-2	D3
Barium	**7.3**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:04	7440-39-3	
Cadmium	**0.52**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:04	7440-43-9	
Chromium	**5.1J**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:04	7440-47-3	D3
Cobalt	**17.4**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:04	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:04	7439-92-1	D3
Lithium	**184**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:04	7439-93-2	
Molybdenum	**42.6**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:04	7439-98-7	
Selenium	**0.52J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:04	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:04	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX9-1024 **Lab ID: 10716376021** Collected: 11/13/24 17:20 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:37	7440-41-7	
Boron	**2890**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:37	7440-42-8	
Calcium	**573000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:37	7440-70-2	
Iron	**21.9J**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:37	7439-89-6	
Magnesium	**205000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:37	7439-95-4	
Manganese	**3030**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:37	7439-96-5	
Potassium	**20800**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:37	7440-09-7	
Sodium	**1530000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:20	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:07	7440-36-0	D3
Arsenic	**1.2J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:07	7440-38-2	D3
Barium	**8.0**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:07	7440-39-3	
Cadmium	**0.28J**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:07	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:07	7440-47-3	D3
Cobalt	**13.8**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:07	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:07	7439-92-1	D3
Lithium	**207**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:07	7439-93-2	
Molybdenum	**40.3**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:07	7439-98-7	
Selenium	**1.1J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:07	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:07	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-TWX10-1024 **Lab ID: 10716376022** Collected: 11/13/24 17:33 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:39	7440-41-7	
Boron	**410**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:39	7440-42-8	
Calcium	**624000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:39	7440-70-2	
Iron	**1190**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:39	7439-89-6	
Magnesium	**160000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:39	7439-95-4	
Manganese	**82.7**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:39	7439-96-5	
Potassium	**10800**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:39	7440-09-7	
Sodium	**2370000**	ug/L	20000	908	20	11/26/24 04:20	11/26/24 16:22	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:10	7440-36-0	D3
Arsenic	**1.2J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:10	7440-38-2	D3
Barium	**11.3**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:10	7440-39-3	
Cadmium	**0.22J**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:10	7440-43-9	D3
Chromium	**184**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:10	7440-47-3	
Cobalt	**24.0**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:10	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:10	7439-92-1	D3
Lithium	**395**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:10	7439-93-2	
Molybdenum	**24.5**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:10	7439-98-7	
Selenium	**1.1J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:10	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:10	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-BAPTD-1024 **Lab ID: 10716376023** Collected: 11/14/24 09:23 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:41	7440-41-7	
Boron	**4150**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:41	7440-42-8	
Calcium	**556000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:41	7440-70-2	
Iron	**160**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:41	7439-89-6	
Magnesium	**234000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:41	7439-95-4	
Manganese	**1290**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:41	7439-96-5	
Potassium	**20100**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:41	7440-09-7	
Sodium	**1640000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:27	7440-23-5	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.44**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:13	7440-36-0	D3
Arsenic	**1.0J**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:13	7440-38-2	D3
Barium	**8.8**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:13	7440-39-3	
Cadmium	**0.34J**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:13	7440-43-9	D3
Chromium	**<2.7**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:13	7440-47-3	D3
Cobalt	**7.2**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:13	7440-48-4	
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:13	7439-92-1	D3
Lithium	**182**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:13	7439-93-2	
Molybdenum	**32.3**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:13	7439-98-7	
Selenium	**0.80J**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:13	7782-49-2	D3
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:13	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-BAP-1024 **Lab ID: 10716376024** Collected: 11/14/24 09:53 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:42	7440-41-7	
Boron	**3670**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:42	7440-42-8	
Calcium	**490000**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:42	7440-70-2	P6
Iron	**207**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:42	7439-89-6	
Magnesium	**263000**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:42	7439-95-4	
Manganese	**130**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:42	7439-96-5	
Potassium	**31000**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:42	7440-09-7	
Sodium	**1460000**	ug/L	10000	454	10	11/26/24 04:20	11/26/24 16:29	7440-23-5	P6
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis								
Antimony	**0.63J**	ug/L	2.5	0.44	5	11/26/24 04:36	11/27/24 10:18	7440-36-0	D3
Arsenic	**6.8**	ug/L	2.5	0.61	5	11/26/24 04:36	11/27/24 10:18	7440-38-2	
Barium	**81.7**	ug/L	1.5	0.35	5	11/26/24 04:36	11/27/24 10:18	7440-39-3	
Cadmium	**<0.15**	ug/L	0.40	0.15	5	11/26/24 04:36	11/27/24 10:18	7440-43-9	D3
Chromium	**5.9J**	ug/L	10.0	2.7	5	11/26/24 04:36	11/27/24 10:18	7440-47-3	D3
Cobalt	**<0.48**	ug/L	2.5	0.48	5	11/26/24 04:36	11/27/24 10:18	7440-48-4	D3
Lead	**<0.90**	ug/L	2.5	0.90	5	11/26/24 04:36	11/27/24 10:18	7439-92-1	D3
Lithium	**147**	ug/L	2.5	0.92	5	11/26/24 04:36	11/27/24 10:18	7439-93-2	
Molybdenum	**21.2**	ug/L	2.5	0.63	5	11/26/24 04:36	11/27/24 10:18	7439-98-7	
Selenium	**4.4**	ug/L	2.5	0.37	5	11/26/24 04:36	11/27/24 10:18	7782-49-2	
Thallium	**<0.13**	ug/L	0.50	0.13	5	11/26/24 04:36	11/27/24 10:18	7440-28-0	D3

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ANALYTICAL RESULTS

Project: L1800893 WG2404282
Pace Project No.: 10716376

Sample: CH-CCR-EB01-1024 **Lab ID: 10716376025** Collected: 11/14/24 10:40 Received: 11/20/24 10:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
	Pace Analytical Services - Minneapolis								
Beryllium	**<0.44**	ug/L	5.0	0.44	1	11/26/24 04:20	11/26/24 15:46	7440-41-7	
Boron	**<16.0**	ug/L	150	16.0	1	11/26/24 04:20	11/26/24 15:46	7440-42-8	
Calcium	**74.0J**	ug/L	500	31.8	1	11/26/24 04:20	11/26/24 15:46	7440-70-2	
Iron	**9.8J**	ug/L	50.0	7.5	1	11/26/24 04:20	11/26/24 15:46	7439-89-6	
Magnesium	**<28.9**	ug/L	500	28.9	1	11/26/24 04:20	11/26/24 15:46	7439-95-4	
Manganese	**<0.50**	ug/L	5.0	0.50	1	11/26/24 04:20	11/26/24 15:46	7439-96-5	
Potassium	**<108**	ug/L	2500	108	1	11/26/24 04:20	11/26/24 15:46	7440-09-7	
Sodium	**616J**	ug/L	1000	45.4	1	11/26/24 04:20	11/26/24 15:46	7440-23-5	B
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical Services - Minneapolis								
Antimony	**<0.087**	ug/L	0.50	0.087	1	11/26/24 04:36	11/27/24 10:21	7440-36-0	
Arsenic	**<0.12**	ug/L	0.50	0.12	1	11/26/24 04:36	11/27/24 10:21	7440-38-2	
Barium	**0.13J**	ug/L	0.30	0.070	1	11/26/24 04:36	11/27/24 10:21	7440-39-3	
Cadmium	**<0.030**	ug/L	0.080	0.030	1	11/26/24 04:36	11/27/24 10:21	7440-43-9	
Chromium	**<0.54**	ug/L	2.0	0.54	1	11/26/24 04:36	11/27/24 10:21	7440-47-3	
Cobalt	**<0.095**	ug/L	0.50	0.095	1	11/26/24 04:36	11/27/24 10:21	7440-48-4	
Lead	**<0.18**	ug/L	0.50	0.18	1	11/26/24 04:36	11/27/24 10:21	7439-92-1	
Lithium	**<0.18**	ug/L	0.50	0.18	1	11/26/24 04:36	11/27/24 10:21	7439-93-2	
Molybdenum	**<0.13**	ug/L	0.50	0.13	1	11/26/24 04:36	11/27/24 10:21	7439-98-7	
Selenium	**<0.074**	ug/L	0.50	0.074	1	11/26/24 04:36	11/27/24 10:21	7782-49-2	
Thallium	**<0.026**	ug/L	0.10	0.026	1	11/26/24 04:36	11/27/24 10:21	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
	Pace Analytical Services - Minneapolis								
Mercury	**<0.074**	ug/L	0.20	0.074	1	11/26/24 05:02	11/27/24 10:27	7439-97-6	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981521
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376025

METHOD BLANK: 5128372 Matrix: Water
Associated Lab Samples: 10716376025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/27/24 10:08	

LABORATORY CONTROL SAMPLE: 5128373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128374 5128375

Parameter	Units	10717202001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	5.2	102	104	70-130	2	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981523 | Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 | Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012

METHOD BLANK: 5128383 Matrix: Water
Associated Lab Samples: 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	11/27/24 10:49	

LABORATORY CONTROL SAMPLE: 5128384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	104	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128385 5128386

Parameter	Units	10716376004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.7	4.7	93	93	70-130	0	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 982136
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376001, 10716376002, 10716376003

METHOD BLANK: 5131961 Matrix: Water
Associated Lab Samples: 10716376001, 10716376002, 10716376003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	<0.074	0.20	0.074	12/03/24 10:51	

LABORATORY CONTROL SAMPLE: 5131962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5131963 5131964

Parameter	Units	10716376003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.074	5	5	4.8	4.6	97	92	70-130	5	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981154
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376020, 10716376021, 10716376022, 10716376023, 10716376024, 10716376025

METHOD BLANK: 5126332 Matrix: Water
Associated Lab Samples: 10716376020, 10716376021, 10716376022, 10716376023, 10716376024, 10716376025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	11/26/24 15:16	
Boron	ug/L	<16.0	150	16.0	11/26/24 15:16	
Calcium	ug/L	<31.8	500	31.8	11/26/24 15:16	
Iron	ug/L	<7.5	50.0	7.5	11/26/24 15:16	
Magnesium	ug/L	<28.9	500	28.9	11/26/24 15:16	
Manganese	ug/L	<0.50	5.0	0.50	11/26/24 15:16	
Potassium	ug/L	<108	2500	108	11/26/24 15:16	
Sodium	ug/L	504J	1000	45.4	11/26/24 15:16	P8

LABORATORY CONTROL SAMPLE: 5126333

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	1030	103	85-115	
Boron	ug/L	1000	1040	104	85-115	
Calcium	ug/L	20000	19400	97	85-115	
Iron	ug/L	20000	20100	101	85-115	
Magnesium	ug/L	20000	19500	97	85-115	
Manganese	ug/L	1000	1030	103	85-115	
Potassium	ug/L	20000	20100	100	85-115	
Sodium	ug/L	20000	19900	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5126334 5126335

Parameter	Units	10716159001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	1010	1050	101	105	70-130	3	20	
Boron	ug/L	238	1000	1000	1260	1300	102	106	70-130	3	20	
Calcium	ug/L	77200	20000	20000	93400	95500	81	92	70-130	2	20	
Iron	ug/L		20000	20000	34500	35300	92	96	70-130	2	20	
Magnesium	ug/L	46100	20000	20000	64400	65700	92	98	70-130	2	20	
Manganese	ug/L		1000	1000	1290	1320	97	101	70-130	3	20	
Potassium	ug/L		20000	20000	28400	29100	116	120	70-130	3	20	
Sodium	ug/L		20000	20000	792000	787000	104	79	70-130	1	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

MATRIX SPIKE SAMPLE: 5126336

Parameter	Units	10716376024 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	1050	105	70-130	
Boron	ug/L	3670	1000	4690	102	70-130	
Calcium	ug/L	490000	20000	499000	45	70-130	P6
Iron	ug/L	207	20000	19600	97	70-130	
Magnesium	ug/L	263000	20000	279000	78	70-130	
Manganese	ug/L	130	1000	1130	100	70-130	
Potassium	ug/L	31000	20000	54300	116	70-130	
Sodium	ug/L	1460000	20000	1320000	-734	70-130	P6

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981497
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376001, 10716376002, 10716376003, 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012, 10716376013, 10716376014, 10716376015, 10716376016, 10716376017, 10716376018, 10716376019

METHOD BLANK: 5128244
Matrix: Water
Associated Lab Samples: 10716376001, 10716376002, 10716376003, 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012, 10716376013, 10716376014, 10716376015, 10716376016, 10716376017, 10716376018, 10716376019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Beryllium	ug/L	<0.44	5.0	0.44	12/05/24 14:18	
Boron	ug/L	<16.0	150	16.0	12/05/24 14:18	
Calcium	ug/L	<31.8	500	31.8	12/05/24 14:18	
Iron	ug/L	<7.5	50.0	7.5	12/05/24 14:18	
Magnesium	ug/L	<28.9	500	28.9	12/05/24 14:18	
Manganese	ug/L	<0.50	5.0	0.50	12/05/24 14:18	
Potassium	ug/L	<108	2500	108	12/05/24 14:18	
Sodium	ug/L	<45.4	1000	45.4	12/05/24 14:18	

LABORATORY CONTROL SAMPLE: 5128245

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	877	88	85-115	
Boron	ug/L	1000	985	98	85-115	
Calcium	ug/L	20000	17600	88	85-115	
Iron	ug/L	20000	17500	88	85-115	
Magnesium	ug/L	20000	17300	87	85-115	
Manganese	ug/L	1000	882	88	85-115	
Potassium	ug/L	20000	17900	89	85-115	
Sodium	ug/L	20000	17900	89	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128246 5128247

Parameter	Units	10716376001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<0.44	1000	1000	885	901	88	90	70-130	2	20	
Boron	ug/L	332	1000	1000	1360	1380	103	105	70-130	2	20	
Calcium	ug/L	482000	20000	20000	510000	508000	141	130	70-130	0	20	P6
Iron	ug/L	3410	20000	20000	21000	21300	88	90	70-130	2	20	
Magnesium	ug/L	191000	20000	20000	213000	212000	110	107	70-130	0	20	
Manganese	ug/L	1290	1000	1000	2200	2210	91	92	70-130	1	20	
Potassium	ug/L	10700	20000	20000	31200	31400	102	103	70-130	1	20	
Sodium	ug/L	805000	20000	20000	817000	783000	56	-114	70-130	4	20	P6

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(612)607-1700

QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

MATRIX SPIKE SAMPLE: 5128248

Parameter	Units	10716376011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	<0.44	1000	898	90	70-130	
Boron	ug/L	15000	1000	15400	41	70-130	P6
Calcium	ug/L	680000	20000	639000	-203	70-130	P6
Iron	ug/L	39.9J	20000	17600	88	70-130	
Magnesium	ug/L	255000	20000	252000	-18	70-130	P6
Manganese	ug/L	1030	1000	1830	80	70-130	
Potassium	ug/L	27700	20000	46800	96	70-130	
Sodium	ug/L	2650000	20000	2520000	-652	70-130	P6

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981500
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716376020, 10716376021, 10716376022, 10716376023, 10716376024, 10716376025

METHOD BLANK: 5128271 Matrix: Water
Associated Lab Samples: 10716376020, 10716376021, 10716376022, 10716376023, 10716376024, 10716376025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.087	0.50	0.087	11/27/24 09:27	
Arsenic	ug/L	<0.12	0.50	0.12	11/27/24 09:27	
Barium	ug/L	<0.070	0.30	0.070	11/27/24 09:27	
Cadmium	ug/L	<0.030	0.080	0.030	11/27/24 09:27	
Chromium	ug/L	<0.54	2.0	0.54	11/27/24 09:27	
Cobalt	ug/L	<0.095	0.50	0.095	11/27/24 09:27	
Lead	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Lithium	ug/L	<0.18	0.50	0.18	11/27/24 09:27	
Molybdenum	ug/L	<0.13	0.50	0.13	11/27/24 09:27	
Selenium	ug/L	<0.074	0.50	0.074	11/27/24 09:27	
Thallium	ug/L	<0.026	0.10	0.026	11/27/24 09:27	

LABORATORY CONTROL SAMPLE: 5128272

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	104	104	85-115	
Arsenic	ug/L	100	104	104	85-115	
Barium	ug/L	100	105	105	85-115	
Cadmium	ug/L	100	102	102	85-115	
Chromium	ug/L	100	110	110	85-115	
Cobalt	ug/L	100	109	109	85-115	
Lead	ug/L	100	107	107	85-115	
Lithium	ug/L	100	106	106	85-115	
Molybdenum	ug/L	100	98.9	99	85-115	
Selenium	ug/L	100	106	106	85-115	
Thallium	ug/L	100	107	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	100	100	102	101	102	101	70-130	1	20	
Arsenic	ug/L	8.3	100	100	115	111	107	103	70-130	3	20	
Barium	ug/L	26.9	100	100	125	126	98	99	70-130	1	20	
Cadmium	ug/L	ND	100	100	99.6	98.9	100	99	70-130	1	20	
Chromium	ug/L	ND	100	100	109	108	107	106	70-130	1	20	
Cobalt	ug/L	ND	100	100	103	101	102	101	70-130	1	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128273 5128274

Parameter	Units	10718136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	100	100	104	102	104	102	70-130	2	20	
Lithium	ug/L	47.0	100	100	159	147	112	100	70-130	8	20	
Molybdenum	ug/L	5.7	100	100	106	105	100	99	70-130	1	20	
Selenium	ug/L	ND	100	100	108	100	108	100	70-130	8	20	
Thallium	ug/L	ND	100	100	102	101	102	101	70-130	1	20	

MATRIX SPIKE SAMPLE: 5128275

Parameter	Units	10716376023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.44	100	100	100	70-130	
Arsenic	ug/L	1.0J	100	108	107	70-130	
Barium	ug/L	8.8	100	109	100	70-130	
Cadmium	ug/L	0.34J	100	97.3	97	70-130	
Chromium	ug/L	<2.7	100	109	106	70-130	
Cobalt	ug/L	7.2	100	110	103	70-130	
Lead	ug/L	<0.90	100	104	104	70-130	
Lithium	ug/L	182	100	274	92	70-130	
Molybdenum	ug/L	32.3	100	134	101	70-130	
Selenium	ug/L	0.80J	100	102	101	70-130	
Thallium	ug/L	<0.13	100	104	104	70-130	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

QC Batch: 981501 | Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 | Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10716376001, 10716376002, 10716376003, 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012, 10716376013, 10716376014, 10716376015, 10716376016, 10716376017, 10716376018, 10716376019

METHOD BLANK: 5128276 Matrix: Water

Associated Lab Samples: 10716376001, 10716376002, 10716376003, 10716376004, 10716376005, 10716376006, 10716376007, 10716376008, 10716376009, 10716376010, 10716376011, 10716376012, 10716376013, 10716376014, 10716376015, 10716376016, 10716376017, 10716376018, 10716376019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	<0.061	0.50	0.061	12/04/24 13:54	
Arsenic	ug/L	<0.13	0.50	0.13	12/04/24 13:54	
Barium	ug/L	<0.090	0.30	0.090	12/04/24 13:54	
Cadmium	ug/L	<0.037	0.080	0.037	12/04/24 13:54	
Chromium	ug/L	<0.50	2.0	0.50	12/04/24 13:54	
Cobalt	ug/L	<0.040	0.50	0.040	12/04/24 13:54	
Lead	ug/L	<0.065	0.50	0.065	12/04/24 13:54	
Lithium	ug/L	<0.20	0.50	0.20	12/04/24 13:54	
Molybdenum	ug/L	<0.11	0.50	0.11	12/04/24 13:54	
Selenium	ug/L	<0.061	0.50	0.061	12/04/24 13:54	
Silver	ug/L	<0.058	0.50	0.058	12/04/24 13:54	
Thallium	ug/L	<0.027	0.10	0.027	12/04/24 13:54	

LABORATORY CONTROL SAMPLE: 5128277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	95.8	96	85-115	
Arsenic	ug/L	100	100	100	85-115	
Barium	ug/L	100	97.7	98	85-115	
Cadmium	ug/L	100	99.7	100	85-115	
Chromium	ug/L	100	105	105	85-115	
Cobalt	ug/L	100	105	105	85-115	
Lead	ug/L	100	101	101	85-115	
Lithium	ug/L	100	88.9	89	85-115	
Molybdenum	ug/L	100	99.0	99	85-115	
Selenium	ug/L	100	91.2	91	85-115	
Silver	ug/L	50	50.2	100	85-115	
Thallium	ug/L	100	102	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128278 5128279

Parameter	Units	10716376002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<0.30	100	100	98.4	100	98	100	70-130	2	20	

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QUALITY CONTROL DATA

Project: L1800893 WG2404282
Pace Project No.: 10716376

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128278 5128279

Parameter	Units	10716376002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	7.4	100	100	115	116	107	108	70-130	1	20	
Barium	ug/L	17.4	100	100	117	118	100	101	70-130	1	20	
Cadmium	ug/L	<0.18	100	100	95.3	96.5	95	97	70-130	1	20	
Chromium	ug/L	<2.5	100	100	104	105	103	104	70-130	0	20	
Cobalt	ug/L	1.3J	100	100	108	111	107	110	70-130	2	20	
Lead	ug/L	<0.32	100	100	99.0	101	99	101	70-130	2	20	
Lithium	ug/L	253	100	100	343	339	90	85	70-130	1	20	
Molybdenum	ug/L	9.2	100	100	115	114	106	105	70-130	1	20	
Selenium	ug/L	0.34J	100	100	100	97.9	100	98	70-130	3	20	
Silver	ug/L	<0.29	50	50	47.3	47.5	94	95	70-130	1	20	
Thallium	ug/L	<0.13	100	100	100	102	100	102	70-130	2	20	

MATRIX SPIKE SAMPLE: 5128280

Parameter	Units	10716376012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	<0.30	100	102	101	70-130	
Arsenic	ug/L	4.0	100	113	109	70-130	
Barium	ug/L	10.4	100	113	103	70-130	
Cadmium	ug/L	<0.18	100	97.2	97	70-130	
Chromium	ug/L	2.9J	100	103	100	70-130	
Cobalt	ug/L	3.7	100	111	107	70-130	
Lead	ug/L	0.70J	100	103	102	70-130	
Lithium	ug/L	389	100	492	103	70-130	
Molybdenum	ug/L	264	100	377	113	70-130	
Selenium	ug/L	0.76J	100	102	102	70-130	
Silver	ug/L	<0.29	50	46.7	93	70-130	
Thallium	ug/L	0.69	100	91.8	91	70-130	

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QUALIFIERS

Project: L1800893 WG2404282
Pace Project No.: 10716376

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
P8	Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10716376001	**CH-CCR-M67A-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376002	**CH-CCR-M46A-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376003	**CH-CCR-M65A-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376004	**CH-CCR-HUNTB-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376005	**CH-CCR-FAP-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376006	**CH-CCR-EW01-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376007	**CH-CCR-EW02-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376008	**CH-CCR-GSX4-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376009	**CH-CCR-EW03-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376010	**CH-CCR-GSX3-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376011	**CH-CCR-GSX1R-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376012	**CH-CCR-EW04-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376013	**CH-CCR-PETRO-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376014	**CH-CCR-TANNER-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376015	**CH-CCR-TWX3-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376016	**CH-CCR-TWX4-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376017	**CH-CCR-TWX5-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376018	**CH-CCR-TWX6-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376019	**CH-CCR-TWX7-1024**	EPA 200.7	981497	EPA 200.7	981981
10716376020	**CH-CCR-TWX8-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376021	**CH-CCR-TWX9-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376022	**CH-CCR-TWX10-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376023	**CH-CCR-BAPTD-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376024	**CH-CCR-BAP-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376025	**CH-CCR-EB01-1024**	EPA 200.7	981154	EPA 200.7	981749
10716376001	**CH-CCR-M67A-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376002	**CH-CCR-M46A-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376003	**CH-CCR-M65A-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376004	**CH-CCR-HUNTB-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376005	**CH-CCR-FAP-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376006	**CH-CCR-EW01-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376007	**CH-CCR-EW02-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376008	**CH-CCR-GSX4-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376009	**CH-CCR-EW03-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376010	**CH-CCR-GSX3-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376011	**CH-CCR-GSX1R-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376012	**CH-CCR-EW04-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376013	**CH-CCR-PETRO-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376014	**CH-CCR-TANNER-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376015	**CH-CCR-TWX3-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376016	**CH-CCR-TWX4-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376017	**CH-CCR-TWX5-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376018	**CH-CCR-TWX6-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376019	**CH-CCR-TWX7-1024**	EPA 200.8	981501	EPA 200.8	981919
10716376020	**CH-CCR-TWX8-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376021	**CH-CCR-TWX9-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376022	**CH-CCR-TWX10-1024**	EPA 200.8	981500	EPA 200.8	981756

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800893 WG2404282
Pace Project No.: 10716376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10716376023	**CH-CCR-BAPTD-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376024	**CH-CCR-BAP-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376025	**CH-CCR-EB01-1024**	EPA 200.8	981500	EPA 200.8	981756
10716376001	**CH-CCR-M67A-1024**	EPA 245.1	982136	EPA 245.1	982326
10716376002	**CH-CCR-M46A-1024**	EPA 245.1	982136	EPA 245.1	982326
10716376003	**CH-CCR-M65A-1024**	EPA 245.1	982136	EPA 245.1	982326
10716376004	**CH-CCR-HUNTB-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376005	**CH-CCR-FAP-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376006	**CH-CCR-EW01-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376007	**CH-CCR-EW02-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376008	**CH-CCR-GSX4-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376009	**CH-CCR-EW03-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376010	**CH-CCR-GSX3-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376011	**CH-CCR-GSX1R-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376012	**CH-CCR-EW04-1024**	EPA 245.1	981523	EPA 245.1	981959
10716376025	**CH-CCR-EB01-1024**	EPA 245.1	981521	EPA 245.1	981753

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Sub-Contract Chain of Custody

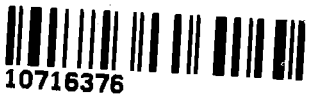
Batch Date/Time: 11/19/24 10:18
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2404282
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 12/02/24
ESC Purchase Order #: L1800893
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

WO#: 10716376



Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only
CH-CCR-W67A-1024	WW	AZ	11/12/24 12:37	Metals	1. L1800893-01	200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-W46A-1024	WW	AZ	11/12/24 15:13	Metals	2. L1800893-02	200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-W65A-1024	WW	AZ	11/12/24 16:40	Metals	3. L1800893-03	200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-HUNTB-1024	WW	AZ	11/12/24 17:27	Metals	4. L1800893-04	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-FAP-1024	WW	AZ	11/13/24 11:48	Metals	5. L1800893-05	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, AGG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EW01-1024	WW	AZ	11/13/24 12:20	Metals	6. L1800893-06	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EW02-1024	WW	AZ	11/13/24 12:42	Metals	7. L1800893-07	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-GSX4-1024	WW	AZ	11/13/24 12:59	Metals	8. L1800893-08	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EW03-1024	WW	AZ	11/13/24 13:17	Metals	9. L1800893-09	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-GSX3-1024	WW	AZ	11/13/24 13:37	Metals	10. L1800893-10	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-GSX1R-1024	WW	AZ	11/13/24 13:52	Metals	11. L1800893-11	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EW04-1024	WW	AZ	11/13/24 14:12	Metals	12. L1800893-12	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-PETRO-1024	WW	AZ	11/13/24 15:21	Metals	13. L1800893-13	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TANNER-1024	WW	AZ	11/13/24 15:45	Metals	14. L1800893-14	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX3-1024	WW	AZ	11/13/24 16:04	Metals	15. L1800893-15	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX4-1024	WW	AZ	11/13/24 16:20	Metals	16. L1800893-16	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX5-1024	WW	AZ	11/13/24 16:38	Metals	17. L1800893-17	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX6-1024	WW	AZ	11/13/24 16:46	Metals	18. L1800893-18	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX7-1024	WW	AZ	11/13/24 16:55	Metals	19. L1800893-19	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX8-1024	WW	AZ	11/13/24 17:10	Metals	20. L1800893-20	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX9-1024	WW	AZ	11/13/24 17:20	Metals	21. L1800893-21	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-TWX10-1024	WW	AZ	11/13/24 17:33	Metals	22. L1800893-22	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-BAPTD-1024	WW	AZ	11/14/24 09:23	Metals	23. L1800893-23	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-BAP-1024	WW	AZ	11/14/24 09:53	Metals	24. L1800893-24	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.
CH-CCR-EB01-1024	WW	AZ	11/14/24 10:40	Metals	25. L1800893-25	Hg, 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, COG, CRG, PBG, MOG, SEG, TLG, APSPALVTAZ_LOCUS EDD, and report to the MDL.

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ Date 11-19-24

Received by: [signature] Date 11/20/24 1005

Relinquished by: _____ Date _____

Received by: _____ Date _____

NO ICE

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: Pace MTJ **PROJECT #:**

WO#: 10716376

PM: TKL Due Date: 12/06/24

CLIENT: PASI-TN

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: _____ ☑ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☐ YES ☑ NO **Seals Intact:** ☐ YES ☑ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: +0.1 **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C	**Average Corrected Temp (no Temp Blank Only):** _____ °C
NOTE: *Temp should be above freezing to 6°C.*	☑ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): _____	**Initials & Date of Person Examining Contents:** JNW 11/20/24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☐	☑	3. Pace
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☑	☐ ☐	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐		11. **If NO, write ID/Date/Time of container below:** MISSING 1×BP3N (0/9) ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.	☑ ☑ ☐	☐ ☐ ☐	☐ ☐ ☑	12. Sample #: 001-025 ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate Positive for Residual Chlorine: ☐ YES ☐ NO **pH Paper Lot #** (Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip) ☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers? Headspace in VOA Vials (greater than 6mm)?	☐ ☐	☐ ☐	☑ ☑	14. ☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present? Trip Blank Custody Seals Present?	☐ ☐	☐ ☐	☑ ☑	15. Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ **Date:** 11/21/24

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: JNW **Line:** 3

Workorder #: _____

No Temp Blank		
Read Temp	**Corrected Temp**	**Average temp**

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

preserved samples, no ice

Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature
4257 6933 7007	16.2
4257 0933 7018	17.5
4257 0933 7029	18.1

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								YES	NO	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800893	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	2-Dec	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Metals	Metals	Residual Chlorine (Y/N)	
1	CH-CCR-W67A-1024	WT				12-Nov	12:37		1								1		X			200.7-BICP, CAICP, BEICP, LIIC
2	CH-CCR-W46A-1024	WT				12-Nov	15:13		1								1		X			200.7-BICP, CAICP, BEICP, LIIC
3	CH-CCR-W65A-1024	WT				12-Nov	16:40		1								1		X			200.7-BICP, CAICP, BEICP, LIIC
4	CH-CCR-HUNTB-1024	WT				12-Nov	17:27		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
5	CH-CCR-FAP-1024	WT				13-Nov	11:48		1								1			X		Hg, 200.7-BICP, CAICP, BEICP,
6	CH-CCR-EW01-1024	WT				13-Nov	12:20		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
7	CH-CCR-EW02-1024	WT				13-Nov	12:42		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
8	CH-CCR-GSX4-1024	WT				13-Nov	12:59		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
9	CH-CCR-EW03-1024	WT				13-Nov	13:17		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
10	CH-CCR-GSX3-1024	WT				13-Nov	13:37		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
11	CH-CCR-GSX1R-1024	WT				13-Nov	13:52		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
12	CH-CCR-EW04-1024	WT				13-Nov	14:12		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	James C Huckaba	19-Nov	10:55							
Pace Analytical Batch: WG2404282										
Pace Analytical SDGs: L1800893										
Location: Minneapolis, MN 55414										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:						
SIGNATURE of SAMPLER:	**DATE Signed:**					

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800893	Pace Quote:	
Phone:	(615) 773-9756 Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	2-Dec	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals	Metals	Residual Chlorine (Y/N)	
1	CH-CCR-PETRO-1024	WT				13-Nov	15:21		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
2	CH-CCR-TANNER-1024	WT				13-Nov	15:45		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
3	CH-CCR-TWX3-1024	WT				13-Nov	16:04		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
4	CH-CCR-TWX4-1024	WT				13-Nov	16:20		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
5	CH-CCR-TWX5-1024	WT				13-Nov	16:38		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
6	CH-CCR-TWX6-1024	WT				13-Nov	16:46		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
7	CH-CCR-TWX7-1024	WT				13-Nov	16:55		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
8	CH-CCR-TWX8-1024	WT				13-Nov	17:10		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
9	CH-CCR-TWX9-1024	WT				13-Nov	17:20		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
10	CH-CCR-TWX10-1024	WT				13-Nov	17:33		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
11	CH-CCR-BAPTD-1024	WT				14-Nov	9:23		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
12	CH-CCR-BAP-1024	WT				14-Nov	9:53		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	James C Huckaba	19-Nov	10:55							
Pace Analytical Batch: WG2404282										
Pace Analytical SDGs: L1800893										
Location: Minneapolis, MN 55414										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:						
SIGNATURE of SAMPLER:	**DATE Signed:**					

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Samantha O'Shea
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1800893	Pace Quote:	
Phone: (615) 773-9756	Fax: (615) 758-5859	Project Name:	APS-Cholla	Pace Project Manager:	Tong Lee
Requested Due Date:	2-Dec	Project #:	US0023513.6913.003.2	Pace Profile #:	38076

Regulatory Agency
State / Location
AZ

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	**SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Metals	Metals	Residual Chlorine (Y/N)	
1	CH-CCR-EB01-1024	WT				14-Nov	10:40		1								1		X			Hg, 200.7-BICP, CAICP, BEICP,
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	James C Huckaba	19-Nov	10:55				
Pace Analytical Batch: WG2404282							
Pace Analytical SDGs: L1800893							
Location: Minneapolis, MN 55414							

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:						
SIGNATURE of SAMPLER:	**DATE Signed:**					

Address
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

APPENDIX

F

2024 DATA VALIDATION REPORT

ARIZONA PUBLIC SERVICE COMPANY

2024 DATA VALIDATION REPORT

CCR RULE COMPLIANCE GROUNDWATER MONITORING DATA – APS CHOLLA POWER PLANT
ARIZONA PUBLIC SERVICE CHOLLA POWER PLANT
NAVAJO COUNTY, ARIZONA

2024 DATA VALIDATION REPORT

CCR RULE COMPLIANCE GROUNDWATER MONITORING DATA – APS CHOLLA POWER PLANT

ARIZONA PUBLIC SERVICE COMPANY

PROJECT NO.: US0023513.9708
DATE: JANUARY 31, 2025

WSP USA INC.
1230 W WASHINGTON ST. STE. 405
TEMPE, AZ 85281

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ACRONYMS AND ABBREVIATIONS

%	percent
APS	Arizona Public Service Company
BTVs	background threshold value(s)
CCR	coal combustion residuals
CLP	Contract Laboratory Program
COC	chain of custody
EPA	United States Environmental Protection Agency
GWPS(s)	Groundwater Protection Standard(s)
LCS	laboratory control sample
LCSD	laboratory control sample
MCL	maximum contaminant level
mg/L	milligrams per liter
MS	matrix spike
MSD	matrix spike duplicate
QC	quality control
RL	reporting limit
RPD	relative percent difference
SAP	sampling and analysis plan
SDG	sample delivery group
SM	Standard Method
TDS	total dissolved solids
Wood	Wood Environment & Infrastructure Solutions, Inc.
WSP	WSP USA Inc

1 INTRODUCTION

Arizona Public Service Company (APS) collected groundwater Detection and Assessment Monitoring samples to support Coal Combustion Residuals (CCR) Rule Compliance during the 2024 calendar year (the reporting period) at the APS Cholla Power Plant, located near Joseph City in Navajo County, Arizona. This report presents the standard methods used to validate reporting period data and documents the results of the data validation process in summary tables and checklists generated as the samples were collected throughout the year.

2 DATA VALIDATION METHODOLOGY

WSP USA Inc. (WSP) performed a United States Environmental Protection Agency (EPA) Stage 2A validation on samples collected by APS during the 2024 calendar year. This is equivalent to a Level I data evaluation as defined in the project sampling and analysis plan (SAP). The Stage 2A validation includes review of the quality control (QC) results in laboratory analytical reports and does not include review or validation of the raw analytical data. Data validation activities have been performed in general accordance with:

- EPA, 2004. SW 846 Test Methods for Evaluating Solid Wastes, Update IIIB.
- EPA, 2017. EPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganic Superfund Data Review, EPA 540-R-2017-001.
- Wood Environment & Infrastructure Solutions, Inc, 2022. Groundwater Sampling and Analysis Program, Cholla Power Plant, Joseph City, Arizona. April 11, 2022.

The CLP guidelines were written specifically for the CLP and have been modified for the purposes of data reviews conducted during the reporting period where they differ from method-specific QC requirements.

During each groundwater monitoring round conducted during the reporting period, the laboratory's certified analytical report and supporting documentation were reviewed to assess the following:

- Data package and electronic data deliverable completeness;
- Chain of custody (COC) compliance;
- Holding time compliance;
- Presence or absence of laboratory contamination as demonstrated by laboratory blanks;
- Accuracy and bias as demonstrated by recovery of laboratory control sample (LCS) and matrix spike (MS) samples;
- Analytical precision as relative percent difference (RPD) of analyte concentration between laboratory duplicates, LCS/LCS duplicates (LCSDs), or MSs/MS duplicates (MSDs);
- Insofar as possible, the degree of conformance to method requirements and good laboratory practices.

Appendix A presents data assessment checklists generated for each sample delivery group submitted to the analytical laboratory during the reporting period. The laboratory performing the analyses as well as the methods of analysis are presented in the individual checklists. **Table 1** presents a comprehensive listing of reporting period samples and **Table 2** summarizes field duplicate detections at concentrations greater than analytical reporting limits.

In general, it is important to recognize that no analytical data are guaranteed to be correct, even if all QC audits are passed. Strict QC serves to increase confidence in data, but any reported value may potentially contain error.

3 EXPLANATION OF DATA QUALITY INDICATORS

Summary explanations of the specific data quality indicators reviewed during data validation are presented below.

3.1 LABORATORY CONTROL SAMPLE RECOVERIES

LCSs are aliquots of analyte free matrices that are spiked with the analytes of interest for an analytical method, or a representative subset of those analytes. The spiked matrix is then processed through the same analytical procedures as the samples it accompanies. LCS recovery is an indication of a laboratory's ability to successfully perform an analytical method in an interference free matrix.

3.2 MATRIX SPIKE RECOVERIES

MSs and MSDs are prepared by adding known amounts of the analytes of interest for an analytical method, or a representative subset of those analytes, to an aliquot of sample. The spiked sample is then processed through the same extraction, concentration, cleanup, and analytical procedures as the unspiked samples in an analytical batch.

MS recovery and precision are an indication of a laboratory's ability to successfully recover an analyte in the matrix of a specific sample or closely related sample matrices. It is important not to apply MS results for any specific sample to other samples without understanding how the sample matrices are related.

3.3 BLANK CONCENTRATIONS

Blank samples are aliquots of analyte free matrix that are used as negative controls to verify that the sample collection, storage, preparation, and analysis system does not produce false positive results.

Equipment blanks are collected in the field on all non-dedicated sampling equipment and processed by the laboratory using exactly the same procedures as the field samples. Target analytes should not be found in equipment blanks.

Laboratory blanks are processed by the laboratory using exactly the same procedures as the field samples. Target analytes should not be found in laboratory blanks.

When target analytes are detected in blanks, analyte concentrations in associated samples less than five times the concentration detected in the blank will be U qualified as being not detected.

3.4 LABORATORY DUPLICATES

Laboratory duplicate analysis verifies acceptable method precision by the laboratory at the time of preparation and analysis and/or sampling precision at the time of collection.

3.5 FIELD DUPLICATES

Field duplicates are collected at the time of sample collection under a duplicate identifier documented in the field forms. Field duplicate analysis verifies acceptable method precision by the laboratory at the time of preparation and analysis and/or sampling precision at the time of collection.

4 DEFINITIONS OF DATA VALIDATION QUALIFIERS

The following qualifiers may be added to the data during data validation:

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U The analyte was analyzed for, but was not detected.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

5 CHAIN OF CUSTODY AND SAMPLE RECEIPT CONDITION DOCUMENTATION

Unless otherwise noted in the Data Assessment Checklists included in **Appendix A,** the samples were received at the laboratories under proper COC, intact, properly preserved, and at temperatures less than the SAP-specified maximum of 6 degrees Celsius.

Samples CH-CCR-M52A-1024 and CH-CCR-MW70M-1024 were received by the laboratory at a temperature of 17.9°C. WSP J qualified the detected alkalinity, TDS, dissolved organic carbon (DOC), pH, sulfate, chloride, and fluoride results and UJ qualified the non-detect ammonia and nitrate/nitrite as nitrogen results for these samples. Results were assigned the reason code RT for elevated receipt temperature.

6 SPECIFIC DATA VALIDATION FINDINGS

Results for groundwater monitoring samples collected in 2024 may be considered usable with the limitations and exceptions summarized in **Table 3**. The following sections identify requirements used in data assessment. Laboratory-specified limits are noted on the Data Assessment Checklists included in **Appendix A**.

6.1 METALS BY EPA METHODS 200.7 200.8, AND 245.1

6.1.1 HOLDING TIMES

Samples must be analyzed for metals within the SAP-specified holding time of 28 days for mercury and 180 days for additional metals. Mercury samples collected during the second semi-annual 2024 event did not meet the laboratory holding time and the results were UJ qualified at the following locations: M-53A, M-55A, MW-69A, MW-78A, W-301, W-302, W-303, W-304, W-306, W-307R, and W-308.

6.1.2 LABORATORY BLANKS

Target analytes must not be detected in the laboratory blanks associated with the analysis of site samples. Beryllium was detected in the method blank associated with the samples for M-55A, MW-78A, W-307R, and W-308 and results were non-detect and U qualified.

6.1.3 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS and LCSD recoveries must be within the laboratory-specified limits and RPDs between the LCS and LCSD results must be less than the laboratory-specified maximum.

During SA1 2024, the following constituents and the associated locations had high or low LCS recovery and the associated results were J qualified:

- High LCS recovery: Barium and lead at M-52A, M-53A, M-55A, MW-65A, MW-69A, MW-70M, MW-73A, MW-74M, and BUDHUNT
- Low LCS recovery: Boron, calcium, iron, magnesium, and potassium at M-52A, M-53A, M-55A, MW-65A, MW-69A, MW-70M, MW-73A, MW-74M, and BUDHUNT

6.1.4 MATRIX SPIKES/MATRIX SPIKE DUPLICATES

Laboratories performed MS and MSD analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. MS/MSD recoveries must be within laboratory-specified limits and RPDs between MS and MSD results must be less than the laboratory-specified maximum.

During SA1 2024, the following constituents and the associated locations had high matrix spike recovery and results were J qualified:

- Arsenic and molybdenum at MW-71A
- Barium at W-317 and the associated field duplicate

— Potassium at W-303, M-65A, and EW-01

During SA2 2024, a high matrix spike recovery was reported at W-306 and M-55A for potassium and results were J qualified. Additionally, a low matrix spike recovery was reported at W-308 for lithium and results were J qualified.

6.1.5 LABORATORY DUPLICATES

Laboratories performed duplicate analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. The RPDs between duplicate results must be less than the laboratory-specified limit. Imprecision was noted between the primary and laboratory duplicate results for calcium at MW-72M and sodium at MW-72M and W-303 during SA 1 2024 and detections were J qualified.

6.1.6 ANALYTICAL SENSITIVITY

RLs for antimony, arsenic, barium, beryllium, cadmium, chromium, lithium, mercury, selenium, and thallium must be sufficiently low to meet the National Primary Drinking Water Regulation Maximum Contamination Limits (MCLs). RLs for cobalt, lead, lithium, and molybdenum must be sufficiently low to meet the alternative Groundwater Protection Standards (GWPSs) for the FAP and BAP or the calculated background threshold value (BTV) for the BAM.

Boron and calcium are not EPA-regulated analytes in groundwater, and it is not possible to evaluate the RLs for these analytes against the National Primary Drinking Water Regulation MCLs.

MDLs are employed where RLs do not meet the project specific comparison criteria. RLs are preferred over MDLs for establishing a sample's detection status (i.e., detect or non-detect) in Appendix III and Appendix IV statistical evaluations because RLs represent the concentration at which an analyte can be reliably quantified.

Semi-annual 1 2024 monitoring event (SA1 2024)

In SA1 2024, Eurofins was not able to meet the required detection limit (the GWPS) for cobalt at MW-72M.

In addition, the following 200.7 and 200.8 results were reported at the MDL to meet required detection limits:

— **Antimony:** TWX-03 and supplementary surface water data collection point BAP Toe Drain
— **Cadmium:** TWX-03 and supplementary surface water data collection point BAP Toe Drain
— **Chromium:** TWX-03

These detections were J qualified and were given a DL reason code for distinction as presented in **Table 3**.

Beryllium was originally reported to the RL of 0.1 mg/L at several locations in close proximity to the BAP during SA1 2024. These locations included: M-52A, M-53A, M-55A, MW-69A, MW-70M, MW-73A, MW-74M, W-301, W-303, W-304, W-306, W-307R, W-308, and W-309. These samples were re-run by Eurofins TestAmerica Laboratories, Inc. (Eurofins) and reported to a lower RL with all locations having detections of beryllium. The re-analysis results indicate several intermediate detection raising concerns about their reliability, as it is inconsistent with historical data at these locations and were reported as non-detect values in SA2 2024.

Semi-annual 2 2024 monitoring event (SA2 2024)

In SA2 2024, Pace Analytical Laboratories (Pace) reported the results for all 200.7 and 200.8 constituents to the MDL, even when the RL was able to achieve the project specific comparison criteria. The only results where the RL was not able to achieve the project specific criteria and required estimating between the MDL and RL were the following:

— **Beryllium:** All monitoring locations were reported to the MDL and there were no detections between the RL and MDL.

Detections between the MDL and RL were J qualified and flagged with the DL reason code. Those 200.7 and 200.8 constituents that were unnecessarily reported by the laboratory at the MDL were modified by WSP to report at the RL in Table 3. Modified values not detected at the RL were U qualified with a ND reason code.

Notably, the beryllium concentrations estimated between the MDL and RL in SA1 2024 were not detected in SA2 2024.

Due to the turbidity of the FAP water, high dilutions were required and RLs were elevated for antimony, arsenic, cobalt, lead, and thallium constituents in SA2 2024. Lead and thallium were not detected in the FAP water during the 2024 monitoring events.

6.2 ANIONS BY EPA METHOD 300.0

6.2.1 HOLDING TIMES

Samples must be analyzed for anions within the SAP-specified holding time of 28 days.

6.2.2 LABORATORY BLANKS

Fluoride, chloride, and sulfate must not be detected in the laboratory blanks associated with the analysis of these samples. Fluoride was detected in the method blank associated with the samples collected at M-06R, M-11R, and BudHunt during semi-annual event 2 2024.

6.2.3 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS and LCSD recoveries must be within the laboratory-specified limits and RPDs between the LCS and LCSD results must be less than the laboratory-specified maximum values.

6.2.4 MATRIX SPIKES/MATRIX SPIKE DUPLICATES

Laboratories performed MS and MSD analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. Recoveries must be within the laboratory-specified limits and RPDs between MS and MSD results must be less than the laboratory-specified limit.

During SA1 2024, sulfate at M-59 and the associated field duplicate reported high matrix spike recovery and the results were J qualified. Additionally, during SA2 2024 a low matrix spike recovery was reported at M-60 and the associated field duplicate for fluoride and results were J qualified.

6.2.5 LABORATORY DUPLICATES

Laboratories performed duplicate analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. The RPDs between duplicate results must be less than the laboratory-specified limit. During SA1 2024, imprecision was noted for chloride at M-59 and in the associated field duplicate and the detections were J qualified. During SA2 2024, imprecision was noted for fluoride at M-63A and the detections were J qualified (**Table 3**).

6.2.6 ANALYTICAL SENSITIVITY

Fluoride RLs must be sufficiently low to meet the 4 mg/L MCL. Chloride and sulfate are not EPA-regulated analytes in groundwater and it is not possible to evaluate the RLs for these analytes against the Primary Drinking Water Regulation MCLs.

There are applicable CCR Groundwater Monitoring Program BTVs for fluoride, chloride, and sulfate for the site. Analytical sensitivity must also be evaluated for these site-specific comparison criteria. MDLs are employed where RLs do not meet the project specific threshold values. RLs are preferred over MDLs for establishing a sample's detection status (i.e., detect or non-detect) in Appendix III and Appendix IV statistical evaluations because RLs represent the concentration at which an analyte can be reliably quantified with confidence.

Fluoride constituents at 16 locations in SA2 2024 were reported to the MDL due to dilutions above 5 and J qualified for detections between the RL and MDL with the DL reason code (**Table 3**). These locations included: M-35, M-43A, MW-64A, MW-66A, M-67A, MW-74M, MW-77A, MW-78A, MW-79A, W-126R, W-301, W-302, W-304, W-305, W-314, and TWX-10.

6.3 TOTAL DISSOLVED SOLIDS BY SM 2540C

6.3.1 HOLDING TIMES

All samples must be analyzed for TDS within the SAP-specified holding time of 7 days excluding 2 samples from W-317 and a duplicate sample which were J qualified.

6.3.2 LABORATORY BLANKS

TDS must not be detected in the laboratory blanks at concentrations above the reporting limit.

6.3.3 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS and LCSD recoveries must be within the laboratory-specified limits and RPDs between the LCS and LCSD results must be less than the laboratory-specified maximum values.

6.3.4 LABORATORY DUPLICATES

Laboratories performed duplicate analysis for TDS on the project samples specified in the Data Assessment Checklists included in **Appendix A**. RPDs between primary sample and laboratory duplicate results must be less than the laboratory-specified limit.

Imprecision was noted between the primary and laboratory duplicate results for total dissolved solids during SA 1 2024 and detections were J qualified at W-317 and the associated field duplicate.

6.4 PH BY SM 4500B

6.4.1 HOLDING TIMES

All samples must be analyzed for pH within 15 minutes of sample collection and all samples analyzed outside of the holding time are J qualified (**Table 3**).

6.4.2 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS recoveries must be within the laboratory-specified limits.

6.4.3 LABORATORY DUPLICATES

Laboratories performed duplicate analysis for pH on the project samples specified in the Data Assessment Checklists included in **Appendix A**. RPDs between primary sample and laboratory duplicate results must be less than the laboratory-specified limit.

6.5 GENERAL CHEMISTRY BY EPA METHOD 350.1, SM 2320B, 353.2, AND S 5310B

6.5.1 HOLDING TIMES

Samples must be analyzed for ammonia, nitrate-nitrite as nitrogen, total organic carbon (TOC), and DOC within 28 days of sample collection. Samples must be analyzed for alkalinity within 14 days of sample collection.

6.5.2 LABORATORY BLANKS

TDS must not be detected in the laboratory blanks at concentrations above the reporting limit.

6.5.3 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS recoveries must be within the laboratory-specified limits.

6.5.4 MATRIX SPIKES/MATRIX SPIKE DUPLICATES

Laboratories performed MS and MSD analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. Recoveries must be within the laboratory-specified limits and RPDs between MS and MSD results must be less than the laboratory-specified limit. A non-detect result for nitrate-nitrite at the FAP was UJ qualified for low matrix spike recovery.

6.5.5 LABORATORY DUPLICATES

Laboratories performed duplicate analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. RPDs between primary sample and laboratory duplicate results must be less than the laboratory-specified limit.

6.6 RADIUM BY EPA METHODS 903.0 AND 904.0

6.6.1 HOLDING TIMES

All samples must be analyzed for radium within the EPA-recommended holding time of 6 months.

6.6.2 LABORATORY BLANKS

TDS must not be detected in the laboratory blanks at concentrations above the reporting limit.

6.6.3 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS and LCSD recoveries must be within laboratory-specified limits.

6.6.4 CARRIER ACCURACY

Carrier recoveries must be within the laboratory-specified limits.

6.6.5 ANALYTICAL SENSITIVITY

Total radium RLs must be sufficiently low to meet the MCL of 5 picocuries per liter. Pending development of applicable CCR Groundwater Monitoring Program BTVs and/or GPSs for the site, analytical sensitivity must also be evaluated for these site-specific comparison criteria.

7 FIELD DUPLICATES

APS collected field duplicate samples of the specified field original samples as specified in **Table 1.** Target analyte detections are summarized in **Table 2.** Field duplicates were collected at the following locations in 2024: M-44D, M-59, M-60, M-61, M-63A, MW-79A, W-307R, and W-317. Precision values must be less than the SAP-specified maximum of 20%, or the differences between the detected concentrations must be less than the RLs.

- Imprecision between the original sample and field duplicates were noted for the following constituents and at the associated locations in SA1 2024 and these results were J qualified as follows:
  - Chloride at W-317
  - Sodium at M-79A
  - TDS at M-44D
  - Total radium at M-44D
- Imprecision between W-317 and the field duplicate was observed for molybdenum in SA2 2024 and results were J qualified (**Table 3**).

8 SUMMARY AND CONCLUSIONS

Data are usable with the addition of qualifiers as presented in **Table 3**. A majority of added qualifiers were for holding time exceedances for pH, which is monitored in the field during sample collection. However, more data included a J-qualifier for high laboratory control sample recoveries in 2024 when compared to past sampling events. Approximately 45 of the 2024 analytical records included a J-qualifier for high laboratory control sample recoveries in 2024. Additional qualifiers were added for equipment blank detections, imprecision in duplicate samples, method blank detections, elevated receipt temperature, and holding times.

RLs are the preferred detection measure over MDLs because RLs represent the concentration at which an analyte can be reliably quantified. However, in the SA1 and SA2 2024 analyses, MDLs were used in cases where RLs did not meet the project specific comparison criteria (BTVs or GWPSs).

Key analytes and locations where results were estimated between the MDL and RL to meet project specific comparison criteria include:

- **Beryllium:** Detected at select BAP locations (M-52A, M-53A, M-55A, M-69A, M-70M, M-73A, M-74M, W-303, W-304, W-306, W-307R, and W-308) in SA1 2024 and at all monitored locations in SA2 2024. The estimated concentration at the select BAP locations raised concerns about its reliability, as it is inconsistent with historical data at this location and the results were reported as non-detect in SA2 2024.
- **Fluoride:** Detected at 16 locations in SA2 2024 and four duplicates were reported to the MDL and J qualified for detections between the RL and MDL.

BIBLIOGRAPHY

— EPA, 2017. EPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganic Superfund Data Review, EPA 540-R-2017-001.

— EPA, 2004. SW 846 Test Methods for Evaluating Solid Wastes, Update IIIB.

— Wood Environment & Infrastructure Solutions, Inc, 2022. Groundwater Sampling and Analysis Program, Cholla Power Plant, Joseph City, Arizona. April 11, 2022.

TABLES

TABLE 1
FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES
Coal Combustion Residuals Rule
2024 Compliance Monitoring Groundwater Data

Sampling Program	CCR Unit	Collection Date and Time	Field Sample Identification	Eurofins Environment Testing Phoenix Sample Identification	Pace Analytical, Mt Juliet, TN	Pace Analytical, Minneapolis, MN	Radiation Safety Engineering Sample Identification	Notes
Assessment	BAP	4/19/2024 9:05	CH-CCR-W302-0424	550-217325-1/2			74298	
Assessment	BAP	4/17/2024 9:58	CH-CCR-W317-0424	550-217325-3			74296	
Assessment	BAP	4/18/2024 11:24	CH-CCR-MW77A-0424	550-217325-4/5			74295	
Assessment	BAP	4/19/2024 10:12	CH-CCR-MW78A-0424	550-217325-6/7			74294	
Assessment	BAP	4/17/2024 16:20	CH-CCR-FD04-0424	550-217325-8			74297	Field duplicate of CH-CCR-W317-0424
Assessment	FAP	4/18/2024 10:09	CH-CCR-M43A-0424	550-217326-1/2			74299	
Assessment	FAP	4/18/2024 9:05	CH-CCR-M45A-0424	550-217326-3			74300	
Assessment	FAP	4/17/2024 15:35	CH-CCR-M46A-0424	550-217326-4/5			74301	
Assessment	FAP	4/18/2024 14:56	CH-CCR-M50A-0424	550-217326-6/7			74302	
Assessment	FAP	4/18/2024 14:19	CH-CCR-M51A-0424	550-217326-8/9			74303	
Assessment	FAP	4/17/2024 11:21	CH-CCR-M63A-0424	550-217326-10			74304	
Assessment	FAP	4/17/2024 12:34	CH-CCR-FD05-0424	550-217326-15			74305	Field duplicate of CH-CCR-M63A-0424
Assessment	FAP	4/18/2024 13:13	CH-CCR-M64A-0424	550-217326-11/12			74306	
Assessment	FAP	4/17/2024 14:06	CH-CCR-MW66A-0424	550-217326-13/14			74307	
Assessment	FAP	4/18/2024 16:24	CH-CCR-W123R-0424	550-217326-16/17			74308	
Assessment	FAP	4/18/2024 15:44	CH-CCR-W125-0424	550-217326-18			74309	
Assessment	FAP	4/17/2024 13:06	CH-CCR-W126R-0424	550-217326-19/20			74310	
Assessment	FAP	4/24/2024 9:40	CH-CCR-M65A-0424	550-217589-1/2			74363	
Assessment	FAP	4/23/2024 8:36	CH-CCR-BudHunt-0424	550-217589-3/4			74364	
Assessment	BAP	4/23/2024 16:29	CH-CCR-M52A-0424	550-217592-1/2			74348	
Assessment	BAP	4/23/2024 13:04	CH-CCR-M53A-0424	550-217592-3/4			74349	
Assessment	BAP	4/22/2024 10:49	CH-CCR-M55A-0424	550-217592-5/6			74350	
Assessment	BAP	4/25/2024 9:58	CH-CCR-MW69A-0424	550-217592-7/8			74351	
Assessment	BAP	4/25/2024 11:27	CH-CCR-MW70M-0424	550-217592-9/10			74352	
Assessment	BAP	4/24/2024 15:27	CH-CCR-MW73A-0424	550-217592-11/12			74353	
Assessment	BAP	4/24/2024 12:04	CH-CCR-MW74M-0424	550-217592-13/14			74354	
Assessment	BAP	4/23/2024 9:52	CH-CCR-W301-0424	550-217592-15/16			74355	
Assessment	BAP	4/23/2024 11:16	CH-CCR-W303-0424	550-217592-17/18			74356	
Assessment	BAP	4/22/2024 16:34	CH-CCR-W304-0424	550-217592-19/20			74357	
Assessment	BAP	4/23/2024 14:02	CH-CCR-W306-0424	550-217592-21/22			74358	
Assessment	BAP	4/22/2024 14:46	CH-CCR-W307R-0424	550-217592-23/24			74359	
Assessment	BAP	4/22/2024 16:20	CH-CCR-FD03-0424	550-217592-29/30			74360	Field duplicate of CH-CCR-W307R-0424
Assessment	BAP	4/22/2024 13:35	CH-CCR-W308-0424	550-217592-25/26			74361	
Assessment	BAP	4/22/2024 9:49	CH-CCR-W309-0424	550-217592-27/28			74362	
Assessment	BAM	4/30/2024 17:50	CH-CCR-M54-0424	550-217864-1			-	
Assessment	BAM	4/30/2024 14:20	CH-CCR-M59-0424	550-217864-2			-	

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Coal Combustion Residuals Rule
2024 Compliance Monitoring Groundwater Data

Sampling Program	CCR Unit	Collection Date and Time	Field Sample Identification	Eurofins Environment Testing Phoenix Sample Identification	Pace Analytical, Mt Juliet, TN	Pace Analytical, Minneapolis, MN	Radiation Safety Engineering Sample Identification	Notes
Assessment	BAM	4/30/2024 15:25	CH-CCR-M61-0424	550-217864-3			-	
Assessment	BAM	4/30/2024 16:20	CH-CCR-FD01-0424	550-217864-4			-	Field duplicate of CH-CCR-M59-0424
Assessment	BAP	5/1/2024 18:02	CH-CCR-MW71A-0424	550-217859-1/2			74410	
Assessment	BAP	5/1/2024 19:11	CH-CCR-MW72M-0424	550-217859-3/4			74411	
Assessment	BAP	4/30/2024 19:04	CH-CCR-MW79A-0424	550-217859-5/6			74412	
Assessment	BAP	4/30/2024 12:34	CH-CCR-FD02-0424	550-217859-7/8			74413	Field duplicate of CH-CCR-MW79A-0424
Assessment	BAP	5/2/2024 10:28	CH-CCR-W305-0424	550-217859-9/10			74414	
Assessment	BAP	4/29/2024 14:51	CH-CCR-W314-0424	550-217859-11/12			74415	
Assessment	BAP	5/1/2024 11:55	CH-CCR-BAP-0424	550-217859-13/14			-	
Assessment	BAP	5/1/2024 10:17	CH-CCR-Petroglyph-0424	550-217859-15/16			-	
Assessment	BAP	5/1/2024 9:52	CH-CCR-TannerWash-0424	550-217859-17/18			-	
Assessment	BAP	5/1/2024 16:49	CH-CCR-TWX4-0424	550-217859-19/20			-	
Assessment	BAP	5/1/2024 16:31	CH-CCR-TWX5-0424	550-217859-21/22			-	
Assessment	BAP	5/1/2024 16:16	CH-CCR-TWX6-0424	550-217859-23/24			-	
Assessment	BAP	5/1/2024 15:56	CH-CCR-TWX7-0424	550-217859-25/26			-	
Assessment	BAP	5/1/2024 11:10	CH-CCR-TWX8-0424	550-217859-27/28			-	
Assessment	BAP	5/1/2024 17:07	CH-CCR-TWX9-0424	550-217859-29/30			-	
Assessment	BAP	5/1/2024 10:50	CH-CCR-TWX10-0424	550-217859-31/32			-	
Assessment	BAM	5/28/2024 15:46	CH-CCR-M60-0424	550-218993-1			-	
Assessment	BAP	5/28/2024 16:08	CH-CCR-BAPTD-0424	550-218992-1				
Assessment	BAP	5/28/2024 15:56	CH-CCR-TWX3-0424	550-218992-2				
Assessment	FAP	05/02/24 12:00	CH-CCR-M44D-0424	550-217871-1			74417	
Assessment	FAP	05/02/24 16:20	CH-CCR-FD06-0424	550-217871-2			74426	Field duplicate of CH-CCR-M44D-0424
Assessment	FAP	04/29/24 17:19	CH-CCR-M67A-0424	550-217871-3/4			74416	
Assessment	FAP	05/02/24 10:58	CH-CCR-FAP-0424	550-217871-5/6			74418	
Assessment	FAP	05/02/24 15:40	CH-CCR-Geronimo-0424	550-217871-7/8			-	
Assessment	FAP	05/02/24 14:48	CH-CCR-GeronimoD-0424	550-217871-9/10			-	
Assessment	FAP	05/02/24 16:34	CH-CCR-HuntB-0424	550-217871-11/12			74424	
Assessment	FAP	05/02/24 14:28	CH-CCR-EW01-0424	550-217871-13/14			74419	
Assessment	FAP	05/02/24 15:04	CH-CCR-EW02-0424	550-217871-15/16			74420	
Assessment	FAP	05/02/24 15:20	CH-CCR-EW03-0424	550-217871-17/18			74421	
Assessment	FAP	05/02/24 16:10	CH-CCR-EW04-0424	550-217871-19/20			74422	
Assessment	FAP	05/02/24 15:54	CH-CCR-GSX1R-0424	550-217871-21/22			74423	
Assessment	FAP	05/02/24 17:00	CH-CCR-EB01-0424	550-217871-23/24			74425	Equipment Blank
Assessment	BAP/FAP	5/28/2024 10:39	CH-CCR-M64A-0524	550-219966-1			-	
Assessment	BAM	7/1/2024 13:56	CH-CCR-M60-0724	550-220345-1			-	
Assessment	BAM	7/1/2024 14:53	CH-CCR-M59-0724	550-220345-2			-	

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2024 Compliance Monitoring Groundwater Data

Sampling Program	CCR Unit	Collection Date and Time	Field Sample Identification	Eurofins Environment Testing Phoenix Sample Identification	Pace Analytical, Mt Juliet, TN	Pace Analytical, Minneapolis, MN	Radiation Safety Engineering Sample Identification	Notes
Assessment	BAM	7/1/2024 16:20	CH-CCR-FD01-0724	550-220345-3			-	Field duplicate of CH-CCR-M60-0724
Assessment	BAP	10/17/2024 15:54	CH-CCR-W317-1024		L1792413-01	10714206001	75700	
Assessment	BAP	10/17/2024 16:55	CH-CCR-FD04-1024		L1792413-02	10714206002	75701	Field duplicate of CH-CCR-W317-1024
Assessment	BAP	10/28/2024 15:02	CH-CCR-M52A-1024	-	L1795547-01	10715044001		
Assessment	BAP	10/28/2024 16:31	CH-CCR-MW70M-1024	-	L1795547-02	10715044002		
Assessment	M&A Wells	11/14/2024 16:28	CH-M01R-1124		L1801340-01			
Assessment	M&A Wells	11/14/2024 14:40	CH-M04R-1124		L1801340-02			
Assessment	M&A Wells	11/14/2024 15:45	CH-M06R-1124		L1801340-03			
Assessment	M&A Wells	11/14/2024 15:08	CH-M11RD-1124		L1801340-04			
Assessment	M&A Wells	11/14/2024 12:55	CH-M35-1124		L1801340-05			
Assessment	FAP	11/4/2024 11:22	CH-CCR-MW66A-1024				75769	
Assessment	FAP	11/4/2024 12:57	CH-CCR-M45A-1024				75770	
Assessment	FAP	11/6/2024 13:15	CH-CCR-M51A-1024				75771	
Assessment	FAP	11/6/2024 14:11	CH-CCR-M50A-1024				75772	
Assessment	FAP	11/6/2024 15:07	CH-CCR-W123R-1024				75773	
Assessment	FAP	11/6/2024 16:05	CH-CCR-W125-1024				75774	
Assessment	BAP	11/11/2024 15:02	CH-CCR-M44D-1024				75810	
Assessment	BAP	11/11/2024 17:22	CH-CCR-W305-1024				75811	
Assessment	BAP	11/11/2024 18:10	CH-CCR-MW79A-1024				75812	
Assessment	BAP	11/12/2024 12:37	CH-CCR-M67A-1024		L1800893-01	10716376001	75813	
Assessment	BAP	11/12/2024 15:13	CH-CCR-M46A-1024		L1800893-02	10716376002	75814	
Assessment	BAP	11/12/2024 16:40	CH-CCR-M65A-1024		L1800893-03	10716376003	75815	
Assessment	BAP	11/12/2024 17:27	CH-CCR-HuntB-1024		L1800893-04	10716376004	75816	
Assessment	BAP	11/13/2024 11:48	CH-CCR-FAP-1024		L1800893-05	10716376005	75817	
Assessment	BAP	11/13/2024 12:20	CH-CCR-EW01-1024		L1800893-06	10716376006	75818	
Assessment	BAP	11/13/2024 12:42	CH-CCR-EW02-1024		L1800893-07	10716376007	75819	
Assessment	BAP	11/13/2024 13:17	CH-CCR-EW03-1024		L1800893-09	10716376009	75820	
Assessment	BAP	11/13/2024 13:52	CH-CCR-GSX1R-1024		L1800893-11	10716376011	75821	
Assessment	BAP	11/13/2024 14:12	CH-CCR-EW04-1024		L1800893-12	10716376012	75822	
Assessment	BAP/FAP	10/29/2024 10:17	CH-CCR-BUDHUNT-1024		L1795452-01	10715045001	75718	
Assessment	BAP/FAP	10/29/2024 11:42	CH-CCR-MW72M-1024		L1795452-02	10715045002	75719	
Assessment	BAP/FAP	10/29/2024 15:02	CH-CCR-MW71A-1024		L1795452-03	10715045003	75720	
Assessment	BAP/FAP	10/29/2024 16:12	CH-CCR-MW73A-1024		L1795452-04	10715045004	75721	
Assessment	BAP/FAP	10/30/2024 10:03	CH-CCR-W314-1024		L1795452-05	10715045005	75722	
Assessment	BAP/FAP	10/30/2024 12:27	CH-CCR-MW74M-1024		L1795452-06	10715045006	75723	
Assessment	BAP/FAP	10/30/2024 15:48	CH-CCR-MW64A-1024		L1795452-07	10715045007	75724	
Assessment	BAP/FAP	10/30/2024 17:05	CH-CCR-MW77A-1024		L1795452-08	10715045008	75725	

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Assessment	BAP/FAP	10/31/2024 10:23	CH-CCR-M43A-1024		L1795452-09	10715045009	75726	
Assessment	BAP/FAP	10/31/2024 14:03	CH-CCR-W126R-1024		L1795452-10	10715045010	75727	
Assessment	BAM/BAP/FAP	11/11/2024 15:02	CH-CCR-M44D-1024		L1800186-01	10716159001		
Assessment	BAM/BAP/FAP	11/11/2024 16:37	CH-CCR-M54-1024		L1800186-02	10716159002		
Assessment	BAM/BAP/FAP	11/11/2024 17:22	CH-CCR-W305-1024		L1800186-03	10716159003		
Assessment	BAM/BAP/FAP	11/11/2024 18:10	CH-CCR-MW79A-1024		L1800186-04	10716159004		
Assessment	FAP	11/4/2024 11:22	CH-CCR-MW66A-1024		L1797996-01	10715534001		
Assessment	FAP	11/4/2024 12:57	CH-CCR-M45A-1024		L1797996-02	10715534002		
Assessment	FAP	11/6/2024 13:15	CH-CCR-MW51A-1024		L1797996-03	10715534003		
Assessment	FAP	11/6/2024 14:11	CH-CCR-MW50A-1024		L1797996-04	10715534004		
Assessment	FAP	11/6/2024 15:07	CH-CCR-W123R-1024		L1797996-05	10715534005		
Assessment	FAP	11/6/2024 16:05	CH-CCR-W125-1024		L1797996-06	10715534006		
Assessment	BAP/FAP	10/21/2024 16:20	CH-CCR-FD05-1024		L1793219-06	10714203006	75702	Field duplicate of CH-CCR-M63A-1024
Assessment	BAP/FAP	10/22/2024 16:20	CH-CCR-FD06-1024		L1793489-04	10714271004	75703	Field duplicate of CH-CCR-W307R-1024
Assessment	BAP/FAP	10/21/2024 10:53	CH-CCR-M63A-1024		L1793219-01	10714203001	75704	
Assessment	BAP/FAP	10/22/2024 12:09	CH-CCR-M55A-1024		L1793489-01	10714271001	75705	
Assessment	BAP/FAP	10/22/2024 15:00	CH-CCR-W308-1024		L1793489-02	10714271002	75706	
Assessment	BAP/FAP	10/22/2024 16:39	CH-CCR-W307R-1024		L1793489-03	10714271003	75707	
Assessment	BAP/FAP	10/23/2024 11:09	CH-CCR-W304-1024		L1793489-05	10714271005	75708	
Assessment	BAP/FAP	10/23/2024 13:13	CH-CCR-W302-1024		L1793489-06	10714271006	75709	
Assessment	BAP/FAP	10/23/2024 15:41	CH-CCR-MW78A-1024		L1793489-07	10714271007	75710	
Assessment	BAP/FAP	10/24/2024 10:45	CH-CCR-W301-1024		L1793489-08	10714271008	75711	
Assessment	BAP/FAP	10/24/2024 13:10	CH-CCR-W303-1024		L1793489-10	10714271010	75712	
Assessment	BAP/FAP	10/24/2024 15:30	CH-CCR-M53A-1024		L1793489-09	10714271009	75713	
Assessment	BAP/FAP	10/24/2024 17:04	CH-CCR-W306-1024		L1793489-11	10714271011	75714	
Assessment	BAP/FAP	10/25/2024 10:20	CH-CCR-MW69A-1024		L1793489-12	10714271012	75715	
Assessment	BAP/FAP	10/28/2024 15:02	CH-CCR-M52A-1024				75716	
Assessment	BAP/FAP	10/28/2024 16:31	CH-CCR-MW70M-1024				75717	
Assessment	BAP/FAP	11/13/2024 12:59	CH-CCR-GSX4-1024		L1800893-08	10716376008		
Assessment	BAP/FAP	11/13/2024 13:37	CH-CCR-GSX3-1024		L1800893-10	10716376010		
Assessment	BAP/FAP	11/13/2024 15:21	CH-CCR-PETRO-1024		L1800893-13	10716376013		
Assessment	BAP/FAP	11/13/2024 15:45	CH-CCR-TANNER-1024		L1800893-14	10716376014		
Assessment	BAP/FAP	11/13/2024 16:04	CH-CCR-TWX3-1024		L1800893-15	10716376015		
Assessment	BAP/FAP	11/13/2024 16:20	CH-CCR-TWX4-1024		L1800893-16	10716376016		
Assessment	BAP/FAP	11/13/2024 16:38	CH-CCR-TWX5-1024		L1800893-17	10716376017		
Assessment	BAP/FAP	11/13/2024 16:46	CH-CCR-TWX6-1024		L1800893-18	10716376018		
Assessment	BAP/FAP	11/13/2024 16:55	CH-CCR-TWX7-1024		L1800893-19	10716376019		

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2024 Compliance Monitoring Groundwater Data

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Assessment	BAP/FAP	11/13/2024 17:10	CH-CCR-TWX8-1024		L1800893-20	10716376020		
Assessment	BAP/FAP	11/13/2024 17:20	CH-CCR-TWX9-1024		L1800893-21	10716376021		
Assessment	BAP/FAP	11/13/2024 17:33	CH-CCR-TWX10-1024		L1800893-22	10716376022		
Assessment	BAP/FAP	11/14/2024 9:23	CH-CCR-BAPTD-1024		L1800893-23	10716376023		
Assessment	BAP/FAP	11/14/2024 9:53	CH-CCR-BAP-1024		L1800893-24	10716376024		
Assessment	BAP/FAP	11/14/2024 10:40	CH-CCR-EB01-1024		L1800893-25	10716376025		
Assessment	BAP	12/10/2024 16:34	CH-CCR-M60-1224		L1809880-01			
Assessment	BAP	12/13/2024 10:52	CH-CCR-W309-1224		L1809880-02			
Assessment	BAP	12/10/2024 15:51	CH-CCR-FD03-1224		L1809880-03			Field Duplicate of CH-CCR-M60-1224
Assessment	BAM/BAP	10/21/2024 12:40	CH-CCR-FD01-1024		L1793219-02	10714203002		Field duplicate of CH-CCR-M59-1024
Assessment	BAM/BAP	10/21/2024 13:48	CH-CCR-M59-1024		L1793219-03	10714203003		
Assessment	BAM/BAP	10/21/2024 15:13	CH-CCR-M61-1024		L1793219-04	10714203004		
Assessment	BAM/BAP	10/21/2024 13:37	CH-CCR-FD02-1024		L1793219-05	10714203005		Field duplicate of CH-CCR-M61-1024

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2024 Compliance Monitoring Groundwater Data

Analyte	Average Reporting Limit		Primary Result		Duplicate Result		RPD	Notes
Samples CH-CCR-M59-0424 and CH-CCR-FD01-0424								
Chloride	40	mg/L	1,700		1,300		27%	J, FD
Fluoride	0.40	mg/L	1.4		1.4		0%	
Sulfate	30	mg/L	430		330		26%	J, FD
Boron	0.050	mg/L	0.50		0.51		2%	
Calcium	2.0	mg/L	86		82		5%	
Total Dissolved Solids	40	mg/L	2,800		2,800		0%	
pH	1.7	SU	7.70		7.70		0%	
Samples CH-CCR-MW79A-0424 and CH-CCR-FD02-0424								
Chloride	100	mg/L	2,300		2,300		0%	
Fluoride	0.40	mg/L	0.63		0.53		17%	
Sulfate	100	mg/L	2,200		2,100		5%	
Boron	0.050	mg/L	0.34		0.34		0%	
Calcium	2.0	mg/L	780		770		1%	
Magnesium	2.0	mg/L	94		94		0%	
Manganese	0.010	mg/L	4.0		4.0		0%	
Potassium	0.50	mg/L	11		11		0%	
Sodium	50	mg/L	2,200		1,600		32%	J, FD
Lithium	20	µg/L	190		180		5%	
Arsenic	0.010	mg/L	0.010	U	0.011		NC	± RL
Barium	0.010	mg/L	0.012		0.012		0%	
Cobalt	0.010	mg/L	0.011		0.011		0%	
Molybdenum	0.010	mg/L	0.016		0.015		6%	
Alkalinity as CaCO3	6.0	mg/L	120		120		0%	
Bicarbonate Alkalinity as CaCO3	6.0	mg/L	120		120		0%	
Total Dissolved Solids	100	mg/L	7,000		7,000		0%	
pH	1.7	SU	7.50		7.50		0%	
Manganese, dissolved	0.010	mg/L	4.0		4.0		0%	
Arsenic, dissolved	10	µg/L	10	U	10		NC	± RL
Cobalt, dissolved	10	µg/L	11		12		9%	
Dissolved Organic Carbon	0.50	mg/L	0.77		0.82		6%	
Samples CH-CCR-W307R-0424 and CH-CCR-FD03-0424								
Chloride	200	mg/L	2,200		2,200		0%	
Sulfate	200	mg/L	2,600		2,600		0%	
Beryllium	0.0010	mg/L	0.0060		0.0058		3%	
Boron	0.050	mg/L	2.7		2.8		4%	
Calcium	2.0	mg/L	810		820		1%	
Iron	0.10	mg/L	0.23		0.21		9%	
Magnesium	2.0	mg/L	160		160		0%	
Manganese	0.010	mg/L	0.97		1.0		3%	
Potassium	0.50	mg/L	8.2		7.6		8%	
Sodium	50	mg/L	2,000		2,100		5%	

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2024 Compliance Monitoring Groundwater Data

Analyte	Average Reporting Limit		Primary Result		Duplicate Result		RPD	Notes
Lithium	20	µg/L	270		280		4%	
Arsenic	0.00050	mg/L	0.0027		0.0028		4%	
Barium	0.00050	mg/L	0.0098		0.010		2%	
Cadmium	0.00010	mg/L	0.00017		0.00016		6%	
Chromium	0.0010	mg/L	0.0037		0.0030		21%	± RL
Cobalt	0.00050	mg/L	0.052		0.053		2%	
Lead	0.00050	mg/L	0.00050	U	0.00050		NC	± RL
Molybdenum	0.00050	mg/L	0.013		0.013		0%	
Selenium	0.00050	mg/L	0.0011		0.0014		24%	± RL
Nitrate Nitrite as N	0.10	mg/L	0.16		0.10	U	NC	± RL
Alkalinity as CaCO3	6.0	mg/L	99		99		0%	
Bicarbonate Alkalinity as CaCO3	6.0	mg/L	99		99		0%	
Total Dissolved Solids	100	mg/L	7,300		7,700		5%	
pH	1.7	SU	7.50		7.50		0%	
Iron, dissolved	0.10	mg/L	0.17		0.18		6%	
Manganese, dissolved	0.010	mg/L	0.94		0.93		1%	
Arsenic, dissolved	0.50	µg/L	2.7		2.6		4%	
Cobalt, dissolved	0.50	µg/L	52		51		2%	
Dissolved Organic Carbon	0.50	mg/L	1.3		1.3		0%	
Samples CH-CCR-W317-0424 and CH-CCR-FD04-0424								
Chloride	200	mg/L	1,500		3,700		85%	J, FD
Sulfate	20	mg/L	610		610		0%	
Boron	0.050	mg/L	0.20		0.20		0%	
Calcium	2.0	mg/L	350		380		8%	
Lithium	20	µg/L	50		57		13%	
Arsenic	0.00050	mg/L	0.0055		0.0054		2%	
Barium	0.00050	mg/L	0.036		0.034		6%	
Chromium	0.0010	mg/L	0.0033		0.0024		32%	± RL
Molybdenum	0.00050	mg/L	0.0019		0.0018		5%	
Selenium	0.00050	mg/L	0.00075		0.00080		6%	
Total Dissolved Solids	100	mg/L	3,600		3,700		3%	
pH	1.7	SU	7.70		7.70		0%	
Samples CH-CCR-M63A-0424 and CH-CCR-FD05-0424								
Chloride	30	mg/L	410		390		5%	
Sulfate	30	mg/L	530		530		0%	
Boron	0.050	mg/L	0.23		0.23		0%	
Calcium	2.0	mg/L	170		170		0%	
Lithium	20	µg/L	72		72		0%	
Arsenic	0.00050	mg/L	0.0023		0.0024		4%	
Barium	0.00050	mg/L	0.027		0.028		4%	
Cobalt	0.00050	mg/L	0.0013		0.0013		0%	
Molybdenum	0.00050	mg/L	0.0034		0.0035		3%	

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2024 Compliance Monitoring Groundwater Data

Analyte	Average Reporting Limit		Primary Result		Duplicate Result		RPD	Notes
Selenium	0.00050	mg/L	0.00091		0.00065		33%	± RL
Total Dissolved Solids	20	mg/L	1,900		1,800		5%	
pH	1.7	SU	7.60		7.60		0%	
Samples CH-CCR-M44D-0424 and CH-CCR-FD06-0424								
Radium 226	1.0	pCi/L	1.8	± 0.3	1.9	± 0.3	5%	
Radium 228	1.0	pCi/L	1.1	± 0.4	0.80	U	NC	± RL
Total Radium	1.0	pCi/L	2.9	± 0.5	1.9	± 0.3	42%	± RL
Chloride	40	mg/L	1,000		1,000		0%	
Fluoride	0.40	mg/L	0.62		0.69		11%	
Sulfate	40	mg/L	290		280		4%	
Boron	0.050	mg/L	0.27		0.27		0%	
Calcium	2.0	mg/L	93		92		1%	
Lithium	20	µg/L	45		25		57%	± RL
Arsenic	0.00050	mg/L	0.0011		0.0011		0%	
Barium	0.00050	mg/L	0.020		0.020		0%	
Molybdenum	0.00050	mg/L	0.0017		0.0017		0%	
Total Dissolved Solids	40	mg/L	2,900		2,200		27%	J, FD
pH	1.7	SU	7.20		7.20		0%	
Samples CH-CCR-M60-0724 4 and CH-CCR-FD01-0724								
Boron	0.050	mg/L	0.52		0.51		2%	
Samples CH-CCR-M59-1024 and CH-CCR-FD01-1024								
Total Dissolved Solids	100	mg/L	2,810		2,790		1%	
pH	1.7	SU	7.71		7.71		0%	
Chloride	10	mg/L	1,330		1,310		2%	
Fluoride	0.15	mg/L	1.5		1.5		3%	
Sulfate	50	mg/L	358		351		2%	
Boron	150	µg/L	481		498		3%	
Calcium	500	µg/L	75,600		77,300		2%	
Samples CH-CCR-M61-1024 and CH-CCR-FD02-1024								
Total Dissolved Solids	100	mg/L	2,890		2,890		0%	
pH	1.7	SU	7.70		7.71		0%	
Chloride	20	mg/L	1,340		1,260		6%	
Fluoride	0.75	mg/L	1.6		1.3		20%	
Sulfate	25	mg/L	364		338		7%	
Boron	150	µg/L	481		471		2%	
Calcium	500	µg/L	78,500		76,600		2%	
Samples CH-CCR-W317-1024 and CH-CCR-FD04-1024								
Total Dissolved Solids	100	mg/L	3,670,000		3,130,000		16%	
pH	1.7	SU	7.98		7.63		4%	
Chloride	10,000	µg/L	1,630,000		1,630,000		0%	
Fluoride	450	µg/L	750	U	393		NC	± RL
Sulfate	50,000	µg/L	688,000		652,000		5%	

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2024 Compliance Monitoring Groundwater Data

Analyte	Average Reporting Limit		Primary Result		Duplicate Result		RPD	Notes
Boron	150	µg/L	199		214		7%	
Calcium	500	µg/L	322,000		304,000		6%	
Arsenic	2.5	µg/L	4.4		4.2		5%	
Barium	1.5	µg/L	32.4		34.4		6%	
Lithium	2.5	µg/L	52.1		59.9		14%	
Molybdenum	2.5	µg/L	1.5	J	20.9		173%	J, FD
Selenium	2.5	µg/L	0.37	U	0.74		NC	± RL
Radium 226	1.0	pCi/L	0.40	U	1.0	± 0.2	NC	± RL
Radium 228	1.0	pCi/L	1.4	± 0.4	0.80	U	NC	± RL
Total Radium	1.0	pCi/L	1.4	± 0.4	1.0	± 0.2	33%	± RL
Samples CH-CCR-M63A-1024 and CH-CCR-FD05-1024								
Radium 226	1.0	pCi/L	0.50	± 0.2	0.90	± 0.2	57%	± RL
Radium 228	1.0	pCi/L	0.80	U	1.0	± 0.4	NC	± RL
Total Radium	1.0	pCi/L	0.50	± 0.2	1.9	± 0.4	117%	J, FD
Total Dissolved Solids	50	mg/L	1,740		1,740		0%	
pH	1.7	SU	7.61		7.68		1%	
Chloride	10	mg/L	283		281		1%	
Fluoride	0.15	mg/L	0.23		0.19		16%	
Sulfate	50	mg/L	667		699		5%	
Boron	150	µg/L	215		220		2%	
Calcium	500	µg/L	151,000		154,000		2%	
Arsenic	2.5	µg/L	2.7		2.1	J	25%	± RL
Barium	1.5	µg/L	27.1		29.2		7%	
Cobalt	2.5	µg/L	1.4	J	1.4	J	0%	
Lithium	2.5	µg/L	81.1		88		8%	
Molybdenum	2.5	µg/L	3.4		4.3		23%	± RL
Selenium	2.5	µg/L	0.37	U	0.48	J	NC	± RL
Thallium	0.50	µg/L	0.13	U	0.20	J	NC	± RL
Samples CH-CCR-W307R-1024 and CH-CCR-FD06-1024								
Radium 226	1.0	pCi/L	0.40	U	0.90	± 0.2	NC	± RL
Radium 228	1.0	pCi/L	0.80	U	1.1	± 0.4	NC	± RL
Total Radium	1.0	pCi/L	0.80	U	2.0	± 0.4	NC	UJ/J, FD
Total Dissolved Solids	200	mg/L	8,000		8,740		9%	
Alkalinity	20	mg/L	119		123		3%	
Nitrate Nitrite as N	0.20	mg/L	0.056	J	0.049	J	13%	
DOC	1.0	mg/L	1.1		1.1		1%	
pH	1.7	SU	7.62		7.62		0%	
Chloride	50	mg/L	2,390		2,400		0%	
Sulfate	250	mg/L	2,870		2,880		0%	
Beryllium	5.0	µg/L	0.87	J	0.46	J	62%	± RL
Boron	150	µg/L	2,630		2,680		2%	
Calcium	500	µg/L	595,000		605,000		2%	

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2024 Compliance Monitoring Groundwater Data

Analyte	Average Reporting Limit		Primary Result		Duplicate Result		RPD	Notes
Iron	50	µg/L	187		183		2%	
Magnesium	500	µg/L	139,000		140,000		1%	
Manganese	5.0	µg/L	1,410		1,430		1%	
Potassium	2,500	µg/L	8,180		8,330		2%	
Sodium	10,000	µg/L	1,750,000		1,670,000		5%	
Iron, Dissolved	50	µg/L	132		132		0%	
Manganese, Dissolved	5.0	µg/L	1,260		1,280		2%	
Arsenic	0.50	µg/L	0.96		1.0		4%	
Barium	0.30	µg/L	8.6		9.1		6%	
Cadmium	0.080	µg/L	0.12		0.14		15%	
Chromium	2.0	µg/L	3.5		3.9		11%	
Cobalt	2.5	µg/L	46.8		51.4		9%	
Lead	0.50	µg/L	0.50		0.55		10%	
Lithium	0.50	µg/L	211		224		6%	
Molybdenum	0.50	µg/L	13.2		14.2		7%	
Selenium	0.50	µg/L	0.15	J	0.14	J	7%	
Arsenic, Dissolved	2.5	µg/L	1.1	J	0.96	J	14%	
Cobalt, Dissolved	2.5	µg/L	50.1		48.7		3%	
Samples CH-CCR-M60-1224 and CH-CCR-FD03-1224								
Total Dissolved Solids	100	mg/L	2,790		2,870		3%	
pH	1.7	SU	8.00		8.10		1%	
Chloride	50	mg/L	1,300		1,410		8%	
Fluoride	0.75	mg/L	1.4		1.4		6%	
Sulfate	25	mg/L	356		340		5%	
Boron	0.20	µg/L	0.60		0.54		12%	
Calcium	1.0	µg/L	90.2		90.3		0%	

Notes:
µg/L = micrograms per liter
mg/L = milligrams per liter
NC = not calculable
pCi/L = picoCuries per liter
SU = standard unit

Qualifier:
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

Reason Code:
FD = Imprecision between primary and field duplicate results.
± RL = the difference between detected concentrations were less than the reporting limit.

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-FD04-0424	J217325	EPA 200.8	Barium	0.034	mg/L	J	HM
CH-CCR-FD04-0424	J217325	EPA 300.0	Chloride	3,700	mg/L	J	FD
CH-CCR-FD04-0424	J217325	SM 2540C	Total Dissolved Solids	3,700	mg/L	J	HD
CH-CCR-FD04-0424	J217325	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-MW77A-0424	J217325	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-MW78A-0424	J217325	SM 4500HB	Hydrogen ion/pH	7.30	SU	J	HT
CH-CCR-W302-0424	J217325	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-W317-0424	J217325	EPA 200.8	Barium	0.036	mg/L	J	HM
CH-CCR-W317-0424	J217325	EPA 300.0	Chloride	1,500	mg/L	J	FD
CH-CCR-W317-0424	J217325	SM 2540C	Total Dissolved Solids	3,600	mg/L	J	HD
CH-CCR-W317-0424	J217325	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-FD05-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-M43A-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-M45A-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.20	SU	J	HT
CH-CCR-M46A-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.20	SU	J	HT
CH-CCR-M50A-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-M51A-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.40	SU	J	HT
CH-CCR-M63A-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-M64A-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-MW66A-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.40	SU	J	HT
CH-CCR-W123R-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-W125-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-W126R-0424	J217326	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-BudHunt-0424	J217589	EPA 200.7	Boron	0.12	mg/L	J	HL
CH-CCR-BudHunt-0424	J217589	EPA 200.7	Calcium	100	mg/L	J	HL
CH-CCR-BudHunt-0424	J217589	EPA 200.7	Magnesium	48	mg/L	J	HL
CH-CCR-BudHunt-0424	J217589	EPA 200.7	Potassium	3.8	mg/L	J	HL
CH-CCR-BudHunt-0424	J217589	EPA 200.8	Barium	0.012	mg/L	J	LL
CH-CCR-BudHunt-0424	J217589	EPA 200.8	Lead	0.00060	mg/L	J	LL
CH-CCR-BudHunt-0424	J217589	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-M65A-0424	J217589	EPA 200.7	Boron	10	mg/L	J	HL
CH-CCR-M65A-0424	J217589	EPA 200.7	Calcium	760	mg/L	J	HL
CH-CCR-M65A-0424	J217589	EPA 200.7	Iron	1.1	mg/L	J	HL
CH-CCR-M65A-0424	J217589	EPA 200.7	Iron, dissolved	0.21	mg/L	J	HL
CH-CCR-M65A-0424	J217589	EPA 200.7	Magnesium	300	mg/L	J	HL
CH-CCR-M65A-0424	J217589	EPA 200.7	Potassium	35	mg/L	J	HL, HM
CH-CCR-M65A-0424	J217589	EPA 200.8	Barium	0.015	mg/L	J	LL
CH-CCR-M65A-0424	J217589	EPA 200.8	Lead	0.00050	mg/L	UJ	LL
CH-CCR-M65A-0424	J217589	SM 4500HB	Hydrogen ion/pH	7.30	SU	J	HT
CH-CCR-FD03-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-M52A-0424	J217592	EPA 200.7	Boron	4.8	mg/L	J	HL
CH-CCR-M52A-0424	J217592	EPA 200.7	Calcium	860	mg/L	J	HL
CH-CCR-M52A-0424	J217592	EPA 200.7	Iron	11	mg/L	J	HL
CH-CCR-M52A-0424	J217592	EPA 200.7	Iron, dissolved	8.7	mg/L	J	HL
CH-CCR-M52A-0424	J217592	EPA 200.7	Magnesium	370	mg/L	J	HL
CH-CCR-M52A-0424	J217592	EPA 200.7	Potassium	7.1	mg/L	J	HL
CH-CCR-M52A-0424	J217592	EPA 200.8	Barium	0.014	mg/L	J	LL
CH-CCR-M52A-0424	J217592	EPA 200.8	Lead	0.00050	mg/L	UJ	LL
CH-CCR-M52A-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.00	SU	J	HT
CH-CCR-M53A-0424	J217592	EPA 200.7	Boron	4.3	mg/L	J	HL
CH-CCR-M53A-0424	J217592	EPA 200.7	Calcium	690	mg/L	J	HL
CH-CCR-M53A-0424	J217592	EPA 200.8	Barium	0.0070	mg/L	J	LL
CH-CCR-M53A-0424	J217592	EPA 200.8	Lead	0.00050	mg/L	UJ	LL
CH-CCR-M53A-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-M55A-0424	J217592	EPA 200.7	Boron	0.47	mg/L	J	HL
CH-CCR-M55A-0424	J217592	EPA 200.7	Calcium	800	mg/L	J	HL
CH-CCR-M55A-0424	J217592	EPA 200.7	Iron	0.17	mg/L	J	HL
CH-CCR-M55A-0424	J217592	EPA 200.7	Magnesium	200	mg/L	J	HL
CH-CCR-M55A-0424	J217592	EPA 200.7	Potassium	2.8	mg/L	J	HL
CH-CCR-M55A-0424	J217592	EPA 200.8	Barium	0.014	mg/L	J	LL

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-M55A-0424	J217592	EPA 200.8	Lead	0.00050	mg/L	UJ	LL
CH-CCR-M55A-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-MW69A-0424	J217592	EPA 200.7	Boron	3.8	mg/L	J	HL
CH-CCR-MW69A-0424	J217592	EPA 200.7	Calcium	760	mg/L	J	HL
CH-CCR-MW69A-0424	J217592	EPA 200.7	Iron	1.0	mg/L	J	HL
CH-CCR-MW69A-0424	J217592	EPA 200.7	Iron, dissolved	0.48	mg/L	J	HL
CH-CCR-MW69A-0424	J217592	EPA 200.7	Magnesium	220	mg/L	J	HL
CH-CCR-MW69A-0424	J217592	EPA 200.7	Potassium	8.4	mg/L	J	HL
CH-CCR-MW69A-0424	J217592	EPA 200.8	Barium	0.014	mg/L	J	LL
CH-CCR-MW69A-0424	J217592	EPA 200.8	Lead	0.00050	mg/L	UJ	LL
CH-CCR-MW69A-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-MW70M-0424	J217592	EPA 200.7	Boron	2.7	mg/L	J	HL
CH-CCR-MW70M-0424	J217592	EPA 200.7	Calcium	690	mg/L	J	HL
CH-CCR-MW70M-0424	J217592	EPA 200.7	Magnesium	190	mg/L	J	HL
CH-CCR-MW70M-0424	J217592	EPA 200.7	Potassium	11	mg/L	J	HL
CH-CCR-MW70M-0424	J217592	EPA 200.8	Barium	0.010	mg/L	J	LL
CH-CCR-MW70M-0424	J217592	EPA 200.8	Lead	0.0016	mg/L	J	LL
CH-CCR-MW70M-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-MW73A-0424	J217592	EPA 200.7	Boron	4.1	mg/L	J	HL
CH-CCR-MW73A-0424	J217592	EPA 200.7	Calcium	650	mg/L	J	HL
CH-CCR-MW73A-0424	J217592	EPA 200.7	Iron	2.1	mg/L	J	HL
CH-CCR-MW73A-0424	J217592	EPA 200.7	Iron, dissolved	0.17	mg/L	J	HL
CH-CCR-MW73A-0424	J217592	EPA 200.7	Magnesium	310	mg/L	J	HL
CH-CCR-MW73A-0424	J217592	EPA 200.7	Potassium	20	mg/L	J	HL
CH-CCR-MW73A-0424	J217592	EPA 200.8	Barium	0.011	mg/L	J	LL
CH-CCR-MW73A-0424	J217592	EPA 200.8	Lead	0.00087	mg/L	J	LL
CH-CCR-MW73A-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.30	SU	J	HT
CH-CCR-MW74M-0424	J217592	EPA 200.7	Boron	2.5	mg/L	J	HL
CH-CCR-MW74M-0424	J217592	EPA 200.7	Calcium	780	mg/L	J	HL
CH-CCR-MW74M-0424	J217592	EPA 200.7	Iron	1.1	mg/L	J	HL
CH-CCR-MW74M-0424	J217592	EPA 200.7	Magnesium	170	mg/L	J	HL
CH-CCR-MW74M-0424	J217592	EPA 200.7	Potassium	19	mg/L	J	HL
CH-CCR-MW74M-0424	J217592	EPA 200.8	Barium	0.014	mg/L	J	LL
CH-CCR-MW74M-0424	J217592	EPA 200.8	Lead	0.0010	mg/L	J	LL
CH-CCR-MW74M-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-W301-0424	J217592	EPA 200.7	Iron, dissolved	0.10	mg/L	J	HL
CH-CCR-W301-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-W303-0424	J217592	EPA 200.7	Potassium	15	mg/L	J	HM
CH-CCR-W303-0424	J217592	EPA 200.7	Sodium	2,600	mg/L	J	HD
CH-CCR-W303-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-W304-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-W306-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.90	SU	J	HT
CH-CCR-W307R-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-W308-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.40	SU	J	HT
CH-CCR-W309-0424	J217592	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-BAP-0424	J217859	SM 4500HB	Hydrogen ion/pH	8.70	SU	J	HT
CH-CCR-FD02-0424	J217859	EPA 200.7	Sodium	1,600	mg/L	J	FD
CH-CCR-FD02-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-MW71A-0424	J217859	EPA 200.8	Arsenic	0.010	mg/L	J	HM
CH-CCR-MW71A-0424	J217859	EPA 200.8	Molybdenum	0.033	mg/L	J	HM
CH-CCR-MW71A-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-MW72M-0424	J217859	EPA 200.7	Calcium	9,400	mg/L	J	HD
CH-CCR-MW72M-0424	J217859	EPA 200.7	Sodium	14,000	mg/L	J	HD
CH-CCR-MW72M-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-MW79A-0424	J217859	EPA 200.7	Sodium	2,200	mg/L	J	FD
CH-CCR-MW79A-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-Petroglyph-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-TannerWash-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-TWX10-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.80	SU	J	HT
CH-CCR-TWX4-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-TWX5-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-TWX6-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-TWX7-0424	J217859	EPA 200.7	Manganese	3.8	mg/L	J	TD
CH-CCR-TWX7-0424	J217859	EPA 200.7	Manganese	1.4	mg/L	J	TD
CH-CCR-TWX7-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.40	SU	J	HT
CH-CCR-TWX8-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-TWX9-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.80	SU	J	HT
CH-CCR-W305-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-W314-0424	J217859	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-FD01-0424	J217864	EPA 300.0	Chloride	1,300	mg/L	J	HD, FD
CH-CCR-FD01-0424	J217864	EPA 300.0	Sulfate	330	mg/L	J	HM, LM, HD, FD
CH-CCR-FD01-0424	J217864	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-M54-0424	J217864	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-M59-0424	J217864	EPA 300.0	Chloride	1,700	mg/L	J	HD, FD
CH-CCR-M59-0424	J217864	EPA 300.0	Sulfate	430	mg/L	J	HM, LM, HD, FD
CH-CCR-M59-0424	J217864	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-M61-0424	J217864	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-EW01-0424	J217871	EPA 200.7	Potassium	6.6	mg/L	J	HM
CH-CCR-EW01-0424	J217871	EPA 200.8	Arsenic	0.0021	mg/L	J	EB
CH-CCR-EW01-0424	J217871	EPA 200.8	Arsenic, dissolved	0.0020	mg/L	J	EB
CH-CCR-EW01-0424	J217871	EPA 200.8	Selenium	0.0023	mg/L	J	EB
CH-CCR-EW01-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.30	SU	J	HT
CH-CCR-EW01-0424	J217871	SM 5310B	Dissolved Organic Carbon	2.2	mg/L	J	EB
CH-CCR-EW01-0424	J217871	SM 5310B	Dissolved Organic Carbon - Duplicate	2.2	mg/L	J	EB
CH-CCR-EW01-0424	J217871	SM 5310B	Dissolved Organic Carbon - Quad	2.2	mg/L	J	EB
CH-CCR-EW02-0424	J217871	EPA 200.8	Arsenic, dissolved	0.0022	mg/L	J	EB
CH-CCR-EW02-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.40	SU	J	HT
CH-CCR-EW02-0424	J217871	SM 5310B	Dissolved Organic Carbon	2.2	mg/L	J	EB
CH-CCR-EW02-0424	J217871	SM 5310B	Dissolved Organic Carbon - Duplicate	2.2	mg/L	J	EB
CH-CCR-EW02-0424	J217871	SM 5310B	Dissolved Organic Carbon - Quad	2.2	mg/L	J	EB
CH-CCR-EW03-0424	J217871	EPA 200.8	Arsenic, dissolved	0.0023	mg/L	J	EB
CH-CCR-EW03-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.30	SU	J	HT
CH-CCR-EW03-0424	J217871	SM 5310B	Dissolved Organic Carbon	2.3	mg/L	J	EB
CH-CCR-EW03-0424	J217871	SM 5310B	Dissolved Organic Carbon - Duplicate	2.3	mg/L	J	EB
CH-CCR-EW03-0424	J217871	SM 5310B	Dissolved Organic Carbon - Quad	2.3	mg/L	J	EB
CH-CCR-EW04-0424	J217871	EPA 200.8	Selenium	0.0020	mg/L	J	EB
CH-CCR-EW04-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.80	SU	J	HT
CH-CCR-EW04-0424	J217871	SM 5310B	Dissolved Organic Carbon	1.9	mg/L	J	EB
CH-CCR-EW04-0424	J217871	SM 5310B	Dissolved Organic Carbon - Duplicate	1.9	mg/L	J	EB
CH-CCR-EW04-0424	J217871	SM 5310B	Dissolved Organic Carbon - Quad	1.9	mg/L	J	EB
CH-CCR-FAP-0424	J217871	EPA 200.7	Manganese	37	mg/L	J	TD
CH-CCR-FAP-0424	J217871	EPA 200.7	Manganese, dissolved	59	mg/L	J	TD
CH-CCR-FAP-0424	J217871	EPA 300.0	Nitrate Nitrite as N	0.25	mg/L	UJ	LM
CH-CCR-FAP-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.10	SU	J	HT
CH-CCR-FD06-0424	J217871	EPA 200.8	Arsenic	0.0011	mg/L	J	EB
CH-CCR-FD06-0424	J217871	SM 2540C	Total Dissolved Solids	2,200	mg/L	J	FD, HD
CH-CCR-FD06-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.20	SU	J	HT
CH-CCR-Geronimo-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.30	SU	J	HT
CH-CCR-Geronimo-0424	J217871	SM 5310B	Dissolved Organic Carbon	2.6	mg/L	J	EB
CH-CCR-Geronimo-0424	J217871	SM 5310B	Dissolved Organic Carbon - Duplicate	2.6	mg/L	J	EB
CH-CCR-Geronimo-0424	J217871	SM 5310B	Dissolved Organic Carbon - Quad	2.6	mg/L	J	EB
CH-CCR-GeronimoD-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-GSX1R-0424	J217871	EPA 200.8	Arsenic	0.0043	mg/L	J	EB
CH-CCR-GSX1R-0424	J217871	EPA 200.8	Arsenic, dissolved	0.0036	mg/L	J	EB
CH-CCR-GSX1R-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-GSX1R-0424	J217871	SM 5310B	Dissolved Organic Carbon	2.2	mg/L	J	EB
CH-CCR-GSX1R-0424	J217871	SM 5310B	Dissolved Organic Carbon - Duplicate	2.2	mg/L	J	EB
CH-CCR-GSX1R-0424	J217871	SM 5310B	Dissolved Organic Carbon - Quad	2.2	mg/L	J	EB
CH-CCR-HuntB-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.50	SU	J	HT
CH-CCR-HuntB-0424	J217871	SM 5310B	Dissolved Organic Carbon	2.0	mg/L	J	EB
CH-CCR-HuntB-0424	J217871	SM 5310B	Dissolved Organic Carbon - Duplicate	2.0	mg/L	J	EB
CH-CCR-HuntB-0424	J217871	SM 5310B	Dissolved Organic Carbon - Quad	2.0	mg/L	J	EB
CH-CCR-M44D-0424	J217871	EPA 200.8	Arsenic	0.0011	mg/L	J	EB

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-M44D-0424	J217871	SM 2540C	Total Dissolved Solids	2,900	mg/L	J	FD, HD
CH-CCR-M44D-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.20	SU	J	HT
CH-CCR-M67A-0424	J217871	SM 4500HB	Hydrogen ion/pH	7.40	SU	J	HT
CH-CCR-BAPTD-0424	J218992	EPA 200.8	Antimony	0.00055	mg/L	J	DL
CH-CCR-BAPTD-0424	J218992	EPA 200.8	Cadmium	0.00089	mg/L	J	DL
CH-CCR-BAPTD-0424	J218992	SM 4500HB	Hydrogen ion/pH	7.40	SU	J	HT
CH-CCR-TWX3-0424	J218992	EPA 200.8	Antimony	0.00079	mg/L	J	DL
CH-CCR-TWX3-0424	J218992	EPA 200.8	Cadmium	0.00049	mg/L	J	DL
CH-CCR-TWX3-0424	J218992	EPA 200.8	Chromium	0.0090	mg/L	J	DL
CH-CCR-TWX3-0424	J218992	SM 4500HB	Hydrogen ion/pH	7.10	SU	J	HT
CH-CCR-M60-0424	J218993	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-FD06-0424	RSE	HPGE	Total Radium	1.9	pCi/L	J	FD
CH-CCR-M44D-0424	RSE	HPGE	Total Radium	2.9	pCi/L	J	FD
CH-CCR-BAPTD-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-BAPTD-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-BAPTD-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-BAPTD-1024	10716376	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-BAPTD-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-BAPTD-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	1.0	mg/L	U	EB
CH-CCR-BAPTD-1024	L1800893	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-BAPTD-1024	L1800893	350.1	Ammonia (as N)	0.10	mg/L	U	ND
CH-CCR-BAPTD-1024	L1800893	5310 B-2014	Total Organic Carbon	1.0	mg/L	U	"EB, ND"
CH-CCR-BAPTD-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.90	SU	J	HT
CH-CCR-BAP-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-BAP-1024	10716376	EPA 200.8	Antimony	0.0025	mg/L	U	ND
CH-CCR-BAP-1024	10716376	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-BAP-1024	10716376	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-BAP-1024	10716376	EPA 200.8	Chromium,Total Dissolved	0.010	mg/L	U	ND
CH-CCR-BAP-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	1.0	mg/L	U	EB
CH-CCR-BAP-1024	L1800893	SM 4500HB	Hydrogen ion/pH	8.05	SU	J	HT
CH-CCR-BUDHUNT-1024	10715045	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-BUDHUNT-1024	10715045	EPA 200.7	Iron	0.050	mg/L	U	ND
CH-CCR-BUDHUNT-1024	10715045	EPA 200.8	Lead	0.00050	mg/L	U	ND
CH-CCR-BUDHUNT-1024	10715045	EPA 200.7	Manganese, dissolved	0.0050	mg/L	U	ND
CH-CCR-BUDHUNT-1024	10715045	EPA 200.7	Manganese	0.0050	mg/L	U	ND
CH-CCR-BUDHUNT-1024	10715045	EPA 200.8	Arsenic	0.00050	mg/L	U	ND
CH-CCR-BUDHUNT-1024	10715045	EPA 200.8	Arsenic, dissolved	0.00050	mg/L	U	ND
CH-CCR-BUDHUNT-1024	10715045	EPA 200.7	Boron	0.15	mg/L	U	ND
CH-CCR-BUDHUNT-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.85	SU	J	HT
CH-CCR-BUDHUNT-1024	L1795452	EPA 300	Fluoride	0.44	mg/L	J	MB
CH-CCR-FAP-1024	10716376	EPA 200.7	Iron	0.50	mg/L	U	ND
CH-CCR-FAP-1024	10716376	EPA 200.7	Iron, dissolved	0.50	mg/L	U	ND
CH-CCR-FAP-1024	L1800893	350.1	Ammonia (as N)	1.0	mg/L	U	ND
CH-CCR-FAP-1024	L1800893	SM 4500HB	Hydrogen ion/pH	6.79	SU	J	HT
CH-M01R-1124	L1801340	EPA 200.8	Molybdenum	0.0050	mg/L	U	ND
CH-M01R-1124	L1801340	EPA 200.8	Arsenic	0.0010	mg/L	U	ND
CH-M01R-1124	L1801340	EPA 200.7	Boron	0.20	mg/L	U	ND
CH-M04R-1124	L1801340	EPA 200.7	Boron	0.20	mg/L	U	ND
CH-M04R-1124	L1801340	EPA 200.8	Molybdenum	0.0050	mg/L	U	ND
CH-M04R-1124	L1801340	EPA 200.7	Lithium	0.015	mg/L	U	ND
CH-M06R-1124	L1801340	EPA 300	Fluoride	0.39	mg/L	J	MB
CH-M06R-1124	L1801340	EPA 200.8	Molybdenum	0.0050	mg/L	U	ND
CH-M06R-1124	L1801340	EPA 200.8	Cobalt	0.0020	mg/L	U	ND
CH-M06R-1124	L1801340	EPA 200.7	Boron	0.20	mg/L	U	ND
CH-M11RD-1124	L1801340	EPA 200.7	Boron	0.20	mg/L	U	ND
CH-M11RD-1124	L1801340	EPA 200.8	Molybdenum	0.0050	mg/L	U	ND
CH-M11RD-1124	L1801340	EPA 300	Fluoride	0.38	mg/L	J	MB
CH-M11RD-1124	L1801340	EPA 200.7	Lithium	0.015	mg/L	U	ND
CH-M35-1124	L1801340	EPA 300	Fluoride	0.71	mg/L	J	DL
CH-M35-1124	L1801340	EPA 200.8	Molybdenum	0.0050	mg/L	U	ND
CH-M35-1124	L1801340	EPA 200.8	Arsenic	0.0010	mg/L	U	ND

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-M35-1124	L1801340	EPA 200.8	Cobalt	0.0020	mg/L	U	ND
CH-CCR-M43A-1024	10715045	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-M43A-1024	10715045	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-M43A-1024	10715045	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-M43A-1024	10715045	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-M43A-1024	10715045	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-M43A-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.58	SU	J	HT
CH-CCR-M43A-1024	L1795452	EPA 300	Fluoride	1.0	mg/L	J	DL
CH-CCR-M44D-1024	10716159	EPA 200.8	Molybdenum	0.0025	mg/L	U	ND
CH-CCR-M44D-1024	10716159	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-M44D-1024	10716159	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-M44D-1024	10716159	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-M44D-1024	L1800186	SM 4500HB	Hydrogen ion/pH	7.53	SU	J	HT
CH-CCR-M45A-1024	10715534	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-M45A-1024	10715534	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-M45A-1024	L1797996	SM 4500HB	Hydrogen ion/pH	7.57	SU	J	HT
CH-CCR-M46A-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-M46A-1024	10716376	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-M46A-1024	10716376	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-M46A-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.10	SU	J	HT
CH-CCR-M46A-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-MW51A-1024	10715534	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-MW51A-1024	10715534	EPA 200.7	Iron	0.050	mg/L	U	ND
CH-CCR-MW51A-1024	10715534	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-MW51A-1024	10715534	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-MW51A-1024	10715534	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-MW51A-1024	L1797996	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-MW51A-1024	L1797996	SM 4500HB	Hydrogen ion/pH	7.58	SU	J	HT
CH-CCR-MW64A-1024	10715045	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-MW64A-1024	10715045	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-MW64A-1024	L1795452	EPA 300	Fluoride	0.80	mg/L	J	DL
CH-CCR-MW64A-1024	L1795452	EPA 300	Fluoride	0.80	mg/L	J	DL
CH-CCR-MW64A-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.51	SU	J	HT
CH-CCR-MW64A-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.51	SU	J	HT
CH-CCR-M65A-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-M65A-1024	10716376	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-M65A-1024	10716376	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-M65A-1024	10716376	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-M65A-1024	10716376	EPA 200.8	Lead	0.0025	mg/L	U	ND
CH-CCR-M65A-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-M65A-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-M65A-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-MW66A-1024	10715534	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-MW66A-1024	10715534	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-MW66A-1024	10715534	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-MW66A-1024	10715534	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-MW66A-1024	10715534	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-MW66A-1024	L1797996	SM 4500HB	Hydrogen ion/pH	7.69	SU	J	HT
CH-CCR-MW66A-1024	L1797996	EPA 300	Fluoride	1.3	mg/L	J	DL
CH-CCR-MW66A-1024	L1797996	350.1	Ammonia (as N)	0.10	mg/L	U	ND
CH-CCR-M67A-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-M67A-1024	10716376	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-M67A-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-M67A-1024	10716376	EPA 200.8	Molybdenum	0.0025	mg/L	U	ND
CH-CCR-M67A-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.57	SU	J	HT
CH-CCR-M67A-1024	L1800893	EPA 300	Fluoride	0.71	mg/L	J	DL
CH-CCR-W123R-1024	10715534	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-W123R-1024	10715534	EPA 200.7	Iron	0.050	mg/L	U	ND
CH-CCR-W123R-1024	10715534	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-W123R-1024	10715534	EPA 200.8	Selenium	0.0025	mg/L	U	ND

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-W123R-1024	L1797996	SM 4500HB	Hydrogen ion/pH	7.59	SU	J	HT
CH-CCR-W125-1024	10715534	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-W125-1024	10715534	EPA 200.8	Molybdenum	0.0025	mg/L	U	ND
CH-CCR-W125-1024	L1797996	SM 4500HB	Hydrogen ion/pH	7.96	SU	J	HT
CH-CCR-W126R-1024	10715045	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-W126R-1024	10715045	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-W126R-1024	10715045	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-W126R-1024	10715045	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-W126R-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.52	SU	J	HT
CH-CCR-W126R-1024	L1795452	EPA 300	Fluoride	0.84	mg/L	J	DL
CH-CCR-W301-1024	10714271	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-W301-1024	10714271	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-W301-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-W301-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-W301-1024	L1793489	EPA 9056	Fluoride	0.91	mg/L	J	DL
CH-CCR-W302-1024	10714271	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-W302-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-W302-1024	10714271	EPA 200.8	Selenium	0.00050	mg/L	U	ND
CH-CCR-W302-1024	10714271	EPA 200.8	Arsenic	0.00050	mg/L	U	ND
CH-CCR-W302-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.54	SU	J	HT
CH-CCR-W302-1024	L1793489	EPA 9056	Fluoride	1.2	mg/L	J	DL
CH-CCR-W302-1024	L1793489	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-W303-1024	10714271	EPA 200.8	Cadmium	0.000080	mg/L	U	ND
CH-CCR-W303-1024	10714271	EPA 200.8	Selenium	0.00050	mg/L	U	ND
CH-CCR-W303-1024	10714271	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-W303-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-W303-1024	L1793489	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-W303-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.65	SU	J	HT
CH-CCR-W304-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-W304-1024	10714271	EPA 200.8	Selenium	0.00050	mg/L	U	ND
CH-CCR-W304-1024	10714271	EPA 200.8	Arsenic	0.00050	mg/L	U	ND
CH-CCR-W304-1024	10714271	EPA 200.8	Cadmium	0.000080	mg/L	U	ND
CH-CCR-W304-1024	10714271	EPA 200.8	Chromium	0.0020	mg/L	U	ND
CH-CCR-W304-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.66	SU	J	HT
CH-CCR-W304-1024	L1793489	EPA 9056	Fluoride	0.89	mg/L	J	DL
CH-CCR-W305-1024	10716159	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-W305-1024	10716159	EPA 200.8	Lead	0.0025	mg/L	U	ND
CH-CCR-W305-1024	10716159	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-W305-1024	L1800186	SM 4500HB	Hydrogen ion/pH	7.49	SU	J	HT
CH-CCR-W305-1024	L1800186	EPA 300	Fluoride	0.51	mg/L	J	DL
CH-CCR-W306-1024	10714271	EPA 200.7	Iron	0.050	mg/L	U	ND
CH-CCR-W306-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-W306-1024	10714271	EPA 200.8	Antimony	0.00050	mg/L	U	ND
CH-CCR-W306-1024	10714271	EPA 200.7	Potassium	6.5	mg/L	J	HM
CH-CCR-W306-1024	10714271	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-W306-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.83	SU	J	HT
CH-CCR-FD06-1024	10714271	EPA 200.8	Selenium	0.00050	mg/L	U	ND
CH-CCR-FD06-1024	10714271	EPA 200.7	Beryllium	0.00046	mg/L	U	MB
CH-CCR-FD06-1024	10714271	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-FD06-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-FD06-1024	L1793489	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-FD06-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.62	SU	J	HT
CH-CCR-W307R-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-W307R-1024	10714271	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-W307R-1024	10714271	EPA 200.7	Beryllium	0.00087	mg/L	U	MB
CH-CCR-W307R-1024	10714271	EPA 200.8	Selenium	0.00050	mg/L	U	ND
CH-CCR-W307R-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.62	SU	J	HT
CH-CCR-W307R-1024	L1793489	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-W308-1024	10714271	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-W308-1024	10714271	EPA 200.7	Beryllium	0.0026	mg/L	U	MB

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-W308-1024	10714271	EPA 200.8	Cadmium	0.000080	mg/L	U	ND
CH-CCR-W308-1024	10714271	EPA 200.8	Lead	0.00050	mg/L	U	ND
CH-CCR-W308-1024	10714271	EPA 200.8	Thallium	0.00010	mg/L	U	ND
CH-CCR-W308-1024	10714271	EPA 200.8	Lithium	0.36	mg/L	J	LM
CH-CCR-W308-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-W308-1024	L1793489	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-W308-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.37	SU	J	HT
CH-CCR-W309-1224	L1809880	EPA 9040C	Hydrogen ion/pH	7.79	SU	J	HT
CH-CCR-W309-1224	L1809880	EPA 200.7	Iron	0.10	mg/L	U	ND
CH-CCR-W309-1224	L1809880	EPA 200.8	Arsenic	0.0010	mg/L	U	ND
CH-CCR-W309-1224	L1809880	EPA 200.8	Arsenic, dissolved	0.0010	mg/L	U	ND
CH-CCR-W314-1024	10715045	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-W314-1024	10715045	EPA 200.7	Iron	0.050	mg/L	U	ND
CH-CCR-W314-1024	10715045	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-W314-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.64	SU	J	HT
CH-CCR-W314-1024	L1795452	EPA 300	Fluoride	1.2	mg/L	J	DL
CH-CCR-FD04-1024	10714206	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-FD04-1024	10714206	EPA 200.8	Molybdenum	0.021	mg/L	J	FD
CH-CCR-FD04-1024	L1792413	SM 2540C	Total Dissolved Solids	3,130	mg/L	J	HT
CH-CCR-FD04-1024	L1792413	EPA 9040C	Hydrogen ion/pH	7.63	SU	J	HT
CH-CCR-W317-1024	10714206	EPA 200.8	Molybdenum	0.0025	mg/L	U	"FD, ND"
CH-CCR-W317-1024	L1792413	EPA 9040C	Hydrogen ion/pH	7.98	SU	J	HT
CH-CCR-W317-1024	L1792413	SM 2540C	Total Dissolved Solids	3,670	mg/L	J	HT
CH-CCR-EW01-1024	10716376	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-EW01-1024	10716376	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-EW01-1024	10716376	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-EW01-1024	10716376	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-EW01-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-EW01-1024	L1800893	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-EW01-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.59	SU	J	HT
CH-CCR-EW02-1024	10716376	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-EW02-1024	L1800893	SM 4500HB	Hydrogen ion/pH	6.68	SU	J	HT
CH-CCR-EW02-1024	L1800893	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-EW02-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-EW03-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-EW03-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	ND
CH-CCR-EW03-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.36	SU	J	HT
CH-CCR-EW04-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-EW04-1024	10716376	EPA 200.8	Lead	0.0025	mg/L	U	ND
CH-CCR-EW04-1024	10716376	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-EW04-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-EW04-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.68	SU	J	HT
CH-CCR-EW04-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-GSX1R-1024	10716376	EPA 200.7	Iron	0.050	mg/L	U	"EB, ND"
CH-CCR-GSX1R-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-GSX1R-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-GSX1R-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-GSX1R-1024	10716376	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-GSX1R-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-GSX1R-1024	L1800893	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-GSX1R-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.53	SU	J	HT
CH-CCR-GSX3-1024	10716376	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-GSX3-1024	10716376	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-GSX3-1024	10716376	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-GSX3-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-GSX3-1024	L1800893	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-GSX3-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-GSX3-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.39	SU	J	HT
CH-CCR-GSX4-1024	10716376	EPA 200.8	Lead	0.0025	mg/L	U	ND
CH-CCR-GSX4-1024	10716376	EPA 200.8	Cobalt	0.0025	mg/L	U	ND

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-GSX4-1024	10716376	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-GSX4-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-GSX4-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	ND
CH-CCR-GSX4-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.59	SU	J	HT
CH-CCR-HUNTB-1024	10716376	EPA 200.7	Iron	0.050	mg/L	U	"EB, ND"
CH-CCR-HUNTB-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-HUNTB-1024	10716376	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-HUNTB-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-HUNTB-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.43	SU	J	HT
CH-CCR-HUNTB-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-M52A-1024	L1795547	350.1	Ammonia (as N)	0.10	mg/L	UJ	RT
CH-CCR-M52A-1024	L1795547	SM 2540C	Total Dissolved Solids	7,740	mg/L	J	"RT, HT"
CH-CCR-M52A-1024	L1795547	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	UJ	RT
CH-CCR-M52A-1024	L1795547	5310 B-2014	Dissolved Organic Carbon	1.5	mg/L	J	RT
CH-CCR-M52A-1024	L1795547	EPA 9040C	Hydrogen ion/pH	7.44	SU	J	"RT, HT"
CH-CCR-M52A-1024	L1795547	EPA 9056	Sulfate	2,900	mg/L	J	RT
CH-CCR-M52A-1024	L1795547	EPA 9056	Chloride	2,330	mg/L	J	RT
CH-CCR-M52A-1024	L1795547	EPA 9056	Fluoride	1.5	mg/L	J	RT
CH-CCR-M53A-1024	10714271	EPA 200.7	Iron	0.050	mg/L	U	ND
CH-CCR-M53A-1024	10714271	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-M53A-1024	10714271	EPA 200.8	Thallium	0.00010	mg/L	U	ND
CH-CCR-M53A-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-M53A-1024	10714271	EPA 200.8	Selenium	0.00050	mg/L	U	ND
CH-CCR-M53A-1024	10714271	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-M53A-1024	10714271	EPA 200.8	Chromium	0.0020	mg/L	U	ND
CH-CCR-M53A-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.66	SU	J	HT
CH-CCR-M54-1024	L1800186	SM 4500HB	Hydrogen ion/pH	8.03	SU	J	HT
CH-CCR-M55A-1024	10714271	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-M55A-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-M55A-1024	10714271	EPA 200.7	Potassium	5.0	mg/L	J	HM
CH-CCR-M55A-1024	10714271	EPA 200.8	Antimony	0.00050	mg/L	U	ND
CH-CCR-M55A-1024	10714271	EPA 200.7	Beryllium	0.0011	mg/L	U	MB
CH-CCR-M55A-1024	10714271	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-M55A-1024	10714271	EPA 200.8	Cobalt	0.00050	mg/L	U	ND
CH-CCR-M55A-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.73	SU	J	HT
CH-CCR-FD01-1024	L1793219	EPA 9040C	Hydrogen ion/pH	7.71	SU	J	HT
CH-CCR-M59-1024	L1793219	EPA 9040C	Hydrogen ion/pH	7.71	SU	J	HT
CH-CCR-FD03-1224	L1809880	EPA 300	Fluoride	1.4	mg/L	J	LM
CH-CCR-FD03-1224	L1809880	EPA 9040C	Hydrogen ion/pH	8.10	SU	J	HT
CH-CCR-M60-1224	L1809880	EPA 9040C	Hydrogen ion/pH	8.00	SU	J	HT
CH-CCR-M60-1224	L1809880	EPA 300	Fluoride	1.4	mg/L	J	LM
CH-CCR-FD02-1024	L1793219	EPA 9040C	Hydrogen ion/pH	7.71	SU	J	HT
CH-CCR-M61-1024	L1793219	EPA 9040C	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-FD05-1024	10714203	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-FD05-1024	10714203	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-FD05-1024	10714203	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-FD05-1024	10714203	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-FD05-1024	L1793219	EPA 9056	Fluoride	0.19	mg/L	J	HD
CH-CCR-FD05-1024	L1793219	EPA 9040C	Hydrogen ion/pH	7.68	SU	J	HT
CH-CCR-M63A-1024	10714203	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-M63A-1024	L1793219	EPA 9040C	Hydrogen ion/pH	7.61	SU	J	HT
CH-CCR-M63A-1024	L1793219	EPA 9056	Fluoride	0.23	mg/L	J	HD
CH-CCR-MW50A-1024	10715534	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-MW50A-1024	10715534	EPA 200.8	Cobalt, dissolved	0.00050	mg/L	U	ND
CH-CCR-MW50A-1024	10715534	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-MW50A-1024	L1797996	SM 4500HB	Hydrogen ion/pH	7.75	SU	J	HT
CH-CCR-MW69A-1024	10714271	EPA 200.8	Selenium	0.00050	mg/L	U	ND
CH-CCR-MW69A-1024	10714271	EPA 200.8	Arsenic	0.00050	mg/L	U	ND
CH-CCR-MW69A-1024	10714271	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-MW69A-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-MW69A-1024	L1793489	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-MW69A-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.35	SU	J	HT
CH-CCR-MW70M-1024	10715044	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-MW70M-1024	10715044	EPA 200.8	Chromium	0.0020	mg/L	U	ND
CH-CCR-MW70M-1024	L1795547	EPA 9056	Sulfate	2,730	mg/L	J	RT
CH-CCR-MW70M-1024	L1795547	EPA 9056	Chloride	2,080	mg/L	J	RT
CH-CCR-MW70M-1024	L1795547	EPA 9040C	Hydrogen ion/pH	7.64	SU	J	"RT, HT"
CH-CCR-MW70M-1024	L1795547	EPA 9056	Fluoride	0.99	mg/L	J	RT
CH-CCR-MW70M-1024	L1795547	SM 2320B	Alkalinity Bicarbonate	95.6	mg/L	J	RT
CH-CCR-MW70M-1024	L1795547	350.1	Ammonia (as N)	0.10	mg/L	UJ	RT
CH-CCR-MW70M-1024	L1795547	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	UJ	RT
CH-CCR-MW70M-1024	L1795547	SM 2540C	Total Dissolved Solids	7,180	mg/L	J	"RT, HT"
CH-CCR-MW70M-1024	L1795547	5310 B-2014	Dissolved Organic Carbon	1.8	mg/L	J	RT
CH-CCR-MW71A-1024	10715045	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-MW71A-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.60	SU	J	HT
CH-CCR-MW72M-1024	10715045	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-MW72M-1024	10715045	EPA 200.7	Boron	0.75	mg/L	U	ND
CH-CCR-MW72M-1024	10715045	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-MW72M-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.89	SU	J	HT
CH-CCR-MW73A-1024	10715045	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-MW73A-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.40	SU	J	HT
CH-CCR-MW74M-1024	10715045	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-MW74M-1024	10715045	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-MW74M-1024	10715045	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-MW74M-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.63	SU	J	HT
CH-CCR-MW74M-1024	L1795452	EPA 300	Fluoride	1.5	mg/L	J	DL
CH-CCR-MW77A-1024	10715045	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-MW77A-1024	10715045	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-MW77A-1024	10715045	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-MW77A-1024	10715045	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-MW77A-1024	10715045	EPA 200.7	Iron	0.050	mg/L	U	ND
CH-CCR-MW77A-1024	L1795452	SM 4500HB	Hydrogen ion/pH	7.55	SU	J	HT
CH-CCR-MW77A-1024	L1795452	EPA 300	Fluoride	0.90	mg/L	J	DL
CH-CCR-MW78A-1024	10714271	EPA 245.1	Mercury	0.00020	mg/L	UJ	HT
CH-CCR-MW78A-1024	10714271	EPA 200.8	Thallium	0.00010	mg/L	U	ND
CH-CCR-MW78A-1024	10714271	EPA 200.8	Cobalt	0.0025	mg/L	U	ND
CH-CCR-MW78A-1024	10714271	EPA 200.8	Cobalt, dissolved	0.0025	mg/L	U	ND
CH-CCR-MW78A-1024	10714271	EPA 200.7	Beryllium	0.00064	mg/L	U	MB
CH-CCR-MW78A-1024	10714271	EPA 200.8	Selenium	0.00050	mg/L	U	ND
CH-CCR-MW78A-1024	L1793489	EPA 9040C	Hydrogen ion/pH	7.61	SU	J	HT
CH-CCR-MW78A-1024	L1793489	EPA 9056	Fluoride	0.82	mg/L	J	DL
CH-CCR-MW79A-1024	10716159	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-MW79A-1024	10716159	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-MW79A-1024	L1800186	SM 4500HB	Hydrogen ion/pH	7.34	SU	J	HT
CH-CCR-MW79A-1024	L1800186	EPA 300	Fluoride	0.70	mg/L	J	DL
CH-CCR-PETRO-1024	10716376	EPA 200.7	Iron	0.050	mg/L	U	"EB, ND"
CH-CCR-PETRO-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-PETRO-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-PETRO-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-PETRO-1024	L1800893	5310 B-2014	Total Organic Carbon	1.0	mg/L	U	"EB, MB, ND"
CH-CCR-PETRO-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.74	SU	J	HT
CH-CCR-TANNER-1024	10716376	EPA 200.7	Iron	0.050	mg/L	U	"EB, ND"
CH-CCR-TANNER-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-TANNER-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-TANNER-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-TANNER-1024	10716376	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-TANNER-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-TANNER-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-TANNER-1024	L1800893	5310 B-2014	Total Organic Carbon	1.0	mg/L	U	"EB, MB, ND"
CH-CCR-TANNER-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.57	SU	J	HT

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-TWX10-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-TWX10-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-TWX10-1024	10716376	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-TWX10-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-TWX10-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	1.0	mg/L	U	EB
CH-CCR-TWX10-1024	L1800893	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-TWX10-1024	L1800893	EPA 300	Fluoride	0.45	mg/L	J	DL
CH-CCR-TWX10-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.72	SU	J	HT
CH-CCR-TWX3-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-TWX3-1024	10716376	EPA 200.8	Lead	0.0025	mg/L	U	ND
CH-CCR-TWX3-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-TWX3-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-TWX3-1024	10716376	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-TWX3-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-TWX3-1024	L1800893	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-TWX3-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-TWX3-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.59	SU	J	HT
CH-CCR-TWX4-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-TWX4-1024	10716376	EPA 200.8	Lead	0.0025	mg/L	U	ND
CH-CCR-TWX4-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-TWX4-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-TWX4-1024	L1800893	5310 B-2014	Total Organic Carbon	1.0	mg/L	U	EB
CH-CCR-TWX4-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.76	SU	J	HT
CH-CCR-TWX5-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-TWX5-1024	10716376	EPA 200.8	Lead	0.0025	mg/L	U	ND
CH-CCR-TWX5-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-TWX5-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-TWX5-1024	10716376	EPA 200.8	Thallium	0.00050	mg/L	U	ND
CH-CCR-TWX5-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-TWX5-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	20	mg/L	U	"EB, ND"
CH-CCR-TWX5-1024	L1800893	5310 B-2014	Total Organic Carbon	1.0	mg/L	U	"EB, ND"
CH-CCR-TWX5-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.75	SU	J	HT
CH-CCR-TWX6-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-TWX6-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-TWX6-1024	10716376	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-TWX6-1024	L1800893	5310 B-2014	Total Organic Carbon	1.0	mg/L	U	"EB,MB, ND"
CH-CCR-TWX6-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.70	SU	J	HT
CH-CCR-TWX7-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-TWX7-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-TWX7-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-TWX7-1024	10716376	EPA 200.8	Cadmium	0.00040	mg/L	U	ND
CH-CCR-TWX7-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-TWX7-1024	L1800893	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-TWX7-1024	L1800893	5310 B-2014	Total Organic Carbon	1.0	mg/L	U	"EB, ND"
CH-CCR-TWX7-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.59	SU	J	HT
CH-CCR-TWX8-1024	10716376	EPA 200.7	Iron	0.050	mg/L	U	"EB, ND"
CH-CCR-TWX8-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-TWX8-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-TWX8-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-TWX8-1024	10716376	EPA 200.8	Chromium	0.010	mg/L	U	ND
CH-CCR-TWX8-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-TWX8-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	1.0	mg/L	U	EB
CH-CCR-TWX8-1024	L1800893	EPA 353.2	Nitrate-Nitrite as N	0.20	mg/L	U	ND
CH-CCR-TWX8-1024	L1800893	5310 B-2014	Total Organic Carbon	1.0	mg/L	U	"EB, ND"
CH-CCR-TWX8-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.71	SU	J	HT
CH-CCR-TWX9-1024	10716376	EPA 200.7	Iron	0.050	mg/L	U	"EB, ND"
CH-CCR-TWX9-1024	10716376	EPA 200.7	Iron, dissolved	0.050	mg/L	U	ND
CH-CCR-TWX9-1024	10716376	EPA 200.8	Arsenic	0.0025	mg/L	U	ND
CH-CCR-TWX9-1024	10716376	EPA 200.8	Arsenic, dissolved	0.0025	mg/L	U	ND
CH-CCR-TWX9-1024	10716376	EPA 200.8	Cadmium	0.00040	mg/L	U	ND

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
Coal Combustion Residuals Rule

Sample Identification	Sample Delivery Group	Method	Analyte	Result		Qualifier and Reason Code	
CH-CCR-TWX9-1024	10716376	EPA 200.8	Selenium	0.0025	mg/L	U	ND
CH-CCR-TWX9-1024	L1800893	5310 B-2014	Dissolved Organic Carbon	1.0	mg/L	U	EB
CH-CCR-TWX9-1024	L1800893	5310 B-2014	Total Organic Carbon	1.0	mg/L	U	"EB, ND"
CH-CCR-TWX9-1024	L1800893	SM 4500HB	Hydrogen ion/pH	7.64	SU	J	HT

Notes:
mg/L = milligrams per liter
pCi/L = picocurie per liter
SU = standard pH unit

Qualifier Definitions:
R = The Result is rejected due to serious deficiencies in meeting QC criteria.
J = The Result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected.

Reason Codes:
DL = The detected concentration is less than the reporting limit.
EB = Equipment Blank
FD = Imprecision between primary and field duplicate results.
HD = Imprecision between primary and laboratory duplicate results.
HL = High laboratory control sample (LCS) recovery. Result may be biased high.
HM = High matrix spike recovery. Result may be biased high.
HT = The method-specified maximum hold time was exceeded.
LL = Low LCS recovery. Result may be biased low.
LM = Low matrix spike recovery. Result may be biased low.
MB = Method blank detection.
ND = Qualified as non-detect at the reporting limit
RT = Elevated receipt temperature.
TD = Dissolved concentration is significantly higher than the total concentration.

APPENDIX

A DATA ASSESSMENT CHECKLISTS

Cholla CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	74294-73410	**Review Date:**	5/8/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
CH-CCR-MW78A-0424	04/19/2024 10:12	74294	
CH-CCR-MW77A-0424	04/18/2024 11:24	74295	
CH-CCR-W317-0424	04/17/2024 9:58	74296	
CH-CCR-FD04-0424	04/17/2024 16:20	74297	Field duplicate of CH-CCR-W317-0424
CH-CCR-W302-0424	04/19/2024 9:05	74298	
CH-CCR-M43A-0424	04/18/2024 10:33	74299	
CH-CCR-M45A-0424	04/18/2024 9:05	74300	
CH-CCR-M46A-0424	04/17/2024 15:35	74301	
CH-CCR-M50A-0424	04/18/2024 14:56	74302	
CH-CCR-M51A-0424	04/18/2024 14:19	74303	
CH-CCR-M63A-0424	04/17/2024 11:21	74304	
CH-CCR-FD05-0424	04/17/2024 12:34	74305	Field duplicate of CH-CCR-M63A-0424
CH-CCR-M64A-0424	04/18/2024 13:13	74306	
CH-CCR-MW66A-0424	04/17/2024 14:06	74307	
CH-CCR-W123R-0424	04/18/2024 16:24	74308	
CH-CCR-W125-0424	04/18/2024 15:44	74309	
CH-CCR-W126R-0424	04/17/2024 13:06	74310	

Analytical Methods:

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radionuclides	HPGE

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? Yes (No)

If no, provide details.

The sample IDs for all samples were listed incorrectly on the COC, ending with "-0423." RSE logged the samples per the sample IDs listed on the container labels, ending with "-0424", per instructions from WSP

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes No (N/A)

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-W317-0424	CH-CCR-FD04-0424
CH-CCR-M63A-0424	CH-CCR-FD05-0424

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes No (N/A)

If Yes:

Sample ID	Analysis

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	S.U.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	74348-74364	**Review Date:**	5/14/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
CH-CCR-M52A-0424	04/23/24 16:29	74348	
CH-CCR-M53A-0424	04/23/24 13:04	74349	
CH-CCR-M55A-0424	04/22/24 10:49	74350	
CH-CCR-MW69A-0424	04/25/24 9:58	74351	
CH-CCR-MW70M-0424	04/25/24 11:27	74352	
CH-CCR-MW73A-0424	04/24/24 15:27	74353	
CH-CCR-MW74M-0424	04/24/24 12:04	74354	
CH-CCR-W301-0424	04/23/24 9:52	74355	
CH-CCR-W303-0424	04/23/24 11:16	74356	
CH-CCR-W304-0424	04/22/24 16:34	74357	
CH-CCR-W306-0424	04/23/24 14:02	74358	
CH-CCR-W307R-0424	04/22/24 14:46	74359	
CH-CCR-FD03-0424	04/22/24 16:20	74360	Field duplicate of CH-CCR-W307R-0424
CH-CCR-W308-0424	04/22/24 13:35	74361	
CH-CCR-W309-0424	04/22/24 9:49	74362	
CH-CCR-M65A-0424	04/24/24 9:40	74363	
CH-CCR-BudHunt-0424	04/23/24 8:36	74364	

Analytical Methods:

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radionuclides	HPGE

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? Yes (No)

If no, provide details.

The sample IDs for all samples were listed incorrectly on the COC, ending with "-0423." RSE logged the samples per the sample IDs listed on the container labels, ending with "-0424", per instructions from WSP.

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes No (N/A)

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-W307R-0424	CH-CCR-FD03-0424

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes No (N/A)

If Yes:

Sample ID	Analysis

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	S.U.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	74410-74426	**Review Date:**	5/24/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
CH-CCR-MW71A-0424	05/01/2024 18:02	74410	
CH-CCR-MW72M-0424	05/01/2024 19:11	74411	
CH-CCR-MW79A-0424	04/30/2024 19:04	74412	
CH-CCR-FD02-0424	04/30/2024 12:34	74413	Field duplicate of CH-CCR-MW79A-0424
CH-CCR-W305-0424	05/02/2024 10:28	74414	
CH-CCR-W314-0424	04/29/2024 14:51	74415	
CH-CCR-M44D-0424	05/02/2024 12:00	74416	
CH-CCR-M67A-0424	04/29/2024 17:19	7417	
CH-CCR-FAP-0424	05/02/2024 10:58	74418	
CH-CCR-EW01-0424	05/02/2024 14:28	74419	
CH-CCR-EW02-0424	05/02/2024 15:04	74420	
CH-CCR-EW03-0424	05/02/2024 15:20	74421	
CH-CCR-EW04-0424	05/02/2024 16:10	74422	
CH-CCR-GSX1R-0424	05/02/2024 15:54	74423	
CH-CCR-HuntB-0424	05/02/2024 16:34	74424	
CH-CCR-EB01-0424	05/02/2024 17:00	74425	Equipment blank
CH-CCR-FD06-0424	05/02/2024 16:20	74426	Field duplicate of CH-CCR-M44D-0424

Analytical Methods:

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radionuclides	HPGE

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? Yes (No)

If no, provide details.

The sample IDs for all samples were listed incorrectly on the COC, ending with "-0423." RSE logged the samples per the sample IDs listed on the container labels, ending with "-0424", per instructions from WSP.

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-MW79A-0424	CH-CCR-FD02-0424
CH-CCR-M44D-0424	CH-CCR-FD06-0424

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability
CH-CCR-M44D-0424	CH-CCR-FD06-0424	Total Radium	43%	J-FD

Note:
FD = Imprecision between primary and field duplicate results.

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes No (N/A)

If Yes:

Sample ID	Analysis

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

(Yes) No

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	S.U.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J217325	**Review Date:**	5/8/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-W302-0424	04/19/24 09:05	550-217325-1/2	
CH-CCR-W317-0424	04/17/24 09:58	550-217325-3	
CH-CCR-MW77A-0424	04/18/24 11:24	550-217325-4/5	
CH-CCR-MW78A-0424	04/19/24 10:12	550-217325-6/7	
CH-CCR-FD04-0424	04/17/24 16:20	550-217325-8	Field duplicate of CH-CCR-W317-0424

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Dissolved Organic Carbon (DOC)	General Chemistry	SM 5310B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-W302-0424	pH	11 days, 6 hours, 2 minutes	J-HT
CH-CCR-W317-0424	pH	13 days, 5 hours, 10 minutes	J-HT
CH-CCR-MW77A-0424	pH	12 days, 3 hours, 45 minutes	J-HT
CH-CCR-MW78A-0424	pH	11 days, 5 hours, 0 minutes	J-HT
CH-CCR-FD04-0424	pH	12 days, 22 hours, 54 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-W317-0424	Chloride, Fluoride, Sulfate, Boron, Calcium, Beryllium, Lithium, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Thallium, Selenium, Mercury
CH-CCR-MW78A-0424	Lithium

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-W317-0424	Barium	138%, MSD	70-130%	J-HM [1]
CH-CCR-W317-0424	Chloride	-60%, -64%	80-120%	NA4
CH-CCR-W317-0424	Sulfate	-12%, -12%	80-120%	NA4
CH-CCR-W317-0424	Calcium	69%, MSD	70-130%	NA4

Notes:
[1] Also qualify the barium result from sample CH-CCR-FD04-0424
HM = High matrix spike recovery.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-W317-0424	CH-CCR-FD04-0424

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability
CH-CCR-W317-0424	CH-CCR-FD04-0424	Chloride	85%	J-FD

Note:
FD = Imprecision between primary and field duplicate results.

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-W302-0424	Alkalinity
CH-CCR-W317-0424	TDS
CH-CCR-MW78A-0424	pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes (No) N/A

If No:

Sample ID	Analyte	Effect on Data Usability
CH-CCR-W317-0424	TDS	J-HD [1]

Note:
[1] Also qualify the TDS result from sample CH-CCR-FD04-0424
HD = Imprecision between primary and laboratory duplicate results.

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J217326	**Review Date:**	5/14/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M43A-0424	04/18/24 10:09	550-217326-1/2	
CH-CCR-M45A-0424	04/18/24 09:05	550-217326-3	
CH-CCR-M46A-0424	04/17/24 15:35	550-217326-4/5	
CH-CCR-M50A-0424	04/18/24 14:56	550-217326-6/7	
CH-CCR-M51A-0424	04/18/24 14:19	550-217326-8/9	
CH-CCR-M63A-0424	04/17/24 11:21	550-217326-10	
CH-CCR-M64A-0424	04/18/24 13:13	550-217326-11/12	
CH-CCR-MW66A-0424	04/17/24 14:06	550-217326-13/14	
CH-CCR-FD05-0424	04/17/24 12:34	550-217326-15	Field Duplicate of CH-CCR-M63A-0424
CH-CCR-W123R-0424	04/18/24 16:24	550-217326-16/17	
CH-CCR-W125-0424	04/18/24 15:44	550-217326-18	
CH-CCR-W126R-0424	04/17/24 13:06	550-217326-19/20	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Dissolved Organic Carbon (DOC)	General Chemistry	SM 5310B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M43A-0424	pH	12 days, 5 hours, 7 minutes	J-HT
CH-CCR-M45A-0424	pH	12 days, 6 hours, 12 minutes	J-HT
CH-CCR-M46A-0424	pH	12 days, 23 hours, 44 minutes	J-HT
CH-CCR-M50A-0424	pH	12 days, 0 hours, 24 minutes	J-HT
CH-CCR-M51A-0424	pH	12 days, 1 hour, 2 minutes	J-HT
CH-CCR-M63A-0424	pH	13 days, 4 hours, 1 minute	J-HT
CH-CCR-M64A-0424	pH	12 days, 2 hours, 11 minutes	J-HT
CH-CCR-MW66A-0424	pH	13 days, 1 hour, 20 minutes	J-HT
CH-CCR-FD05-0424	pH	13 days, 2 hours, 58 minutes	J-HT
CH-CCR-W123R-0424	pH	11 days, 23 hours, 11 minutes	J-HT
CH-CCR-W125-0424	pH	11 days, 23 hours, 52 minutes	J-HT
CH-CCR-W126R-0424	pH	13 days, 2 hours, 31 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M45A-0424	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
CH-CCR-M43A-0424	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium
CH-CCR-M46A-0424	Mercury
CH-CCR-W126R-0424	Nitrate/Nitrite

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M45A-0424	Calcium	-199%, -115%	70-130%	NA4
CH-CCR-M45A-0424	Iron	41%, 61%	70-130%	NA4
CH-CCR-M45A-0424	Magnesium	41%, 63%	70-130%	NA4
CH-CCR-M45A-0424	Sodium	-268%, -157%	70-130%	NA4

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-M63A-0424	CH-CCR-FD05-0424

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-M51A-0424	TDS
CH-CCR-FD05-0424	pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No) N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit
CH-CCR-M64A-0424	Lithium	0.40 mg/L

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J217589	**Review Date:**	5/14/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M65A-0424	04/24/24 09:40	550-217589-1/2	
CH-CCR-BudHunt-0424	04/23/24 08:36	550-217589-3/4	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Dissolved Organic Carbon (DOC)	General Chemistry	SM 5310B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M65A-0424	pH	7 days, 8 hours, 11 minutes	J-HT
CH-CCR-BudHunt-0424	pH	8 days, 9 hours, 15 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability
Boron	116%, 116%	85-115%	CH-CCR-M65A-0424, CH-CCR-BudHunt-0424	J-HL
Calcium	117%, 117%	85-115%	CH-CCR-M65A-0424, CH-CCR-BudHunt-0424	J-HL
Iron Iron, dissolved	117%, LCS	85-115%	CH-CCR-M65A-0424	J-HL
Magnesium	117%, 116%	85-115%	CH-CCR-M65A-0424, CH-CCR-BudHunt-0424	J-HL
Potassium	116%, LCS	85-115%	CH-CCR-M65A-0424, CH-CCR-BudHunt-0424	J-HL
Barium	60%, 59%	85-115%	CH-CCR-M65A-0424, CH-CCR-BudHunt-0424	J-LL
Lead	84%, 84%	85-115%	CH-CCR-M65A-0424, CH-CCR-BudHunt-0424	J/UJ-LL

Notes:
HL = High laboratory control sample (LCS) recovery.
LL = Low LCS recovery.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M65A-0424	Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium; Dissolved: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium, DOC

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M65A-0424	Potassium	144%, 155%	70-130%	J-HM
CH-CCR-M65A-0424	Antimony, dissolved	32%, 33%	70-130%	NT
CH-CCR-M65A-0424	Cadmium, dissolved	41%, 41%	70-130%	NT
CH-CCR-M65A-0424	Thallium, dissolved	39%, 37%	70-130%	NT
CH-CCR-M65A-0424	Barium, dissolved	-13,438%, -13,423%	70-130%	NA4

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M65A-0424	Molybdenum, dissolved	-101,194%, -101,195%	70-130%	NA4
CH-CCR-M65A-0424	Selenium, dissolved	-1,155%, -1,155%	70-130%	NA4
CH-CCR-M65A-0424	Sodium	1,612%, -68%	70-130%	NA4

Notes:
HM = High matrix spike recovery.
LM = Low matrix spike recovery.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.
NT = The spiked analyte was not a target analyte.

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

Sample ID	Analysis

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

(Yes) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J217589-2	**Review Date:**	6/21/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M65A-0424	04/24/24 09:40	550-217589-2	
CH-CCR-BudHunt-0424	04/23/24 08:36	550-217589-4	

Analytical Methods:

Analyte	Analyte Group	Method
Beryllium	Metals	EPA 200.7

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? Yes (No)

If No, provide details.

The COC was not included in this report, but is included, signed, and complete in SDG J217589-1.

Sample Login Matched COC? Yes (No)

If no, provide details.

The COC was not included in this report, but sample login matches the corresponding COC in SDG J217589-1.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

Sample ID	Analysis

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No (N/A)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J217592	**Review Date:**	6/3/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M52A-0424	4/23/2024 16:29	550-217592-1/2	
CH-CCR-M53A-0424	4/23/2024 13:04	550-217592-3/4	
CH-CCR-M55A-0424	4/22/2024 10:49	550-217592-5/6	
CH-CCR-MW69A-0424	4/25/2024 9:58	550-217592-7/8	
CH-CCR-MW70M-0424	4/25/2024 11:27	550-217592-9/10	
CH-CCR-MW73A-0424	4/24/2024 15:27	550-217592-11/12	
CH-CCR-MW74M-0424	4/24/2024 12:04	550-217592-13/14	
CH-CCR-W301-0424	4/23/2024 9:52	550-217592-15/16	
CH-CCR-W303-0424	4/23/2024 11:16	550-217592-17/18	
CH-CCR-W304-0424	4/22/2024 16:34	550-217592-19/20	
CH-CCR-W306-0424	4/23/2024 14:02	550-217592-21/22	
CH-CCR-W307R-0424	4/22/2024 14:46	550-217592-23/24	
CH-CCR-W308-0424	4/22/2024 13:35	550-217592-25/26	
CH-CCR-W309-0424	4/22/2024 9:49	550-217592-27/28	
CH-CCR-FD03-0424	4/22/2024 16:20	550-217592-29/30	Field duplicate of CH-CCR-W307R-0424

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Dissolved Organic Carbon (DOC)	General Chemistry	SM 5310B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M52A-0424	pH	8 days, 1 hour, 22 minutes	J-HT
CH-CCR-M53A-0424	pH	10 days, 2 hours, 17 minutes	J-HT
CH-CCR-M55A-0424	pH	11 days, 4 hours, 33 minutes	J-HT
CH-CCR-MW69A-0424	pH	8 days, 5 hours, 25 minutes	J-HT
CH-CCR-MW70M-0424	pH	8 days, 3 hours, 58 minutes	J-HT
CH-CCR-MW73A-0424	pH	8 days, 23 hours, 59 minutes	J-HT
CH-CCR-MW74M-0424	pH	9 days, 3 hours, 27 minutes	J-HT
CH-CCR-W301-0424	pH	10 days, 5 hours, 40 minutes	J-HT
CH-CCR-W303-0424	pH	10 days, 4 hours, 17 minutes	J-HT
CH-CCR-W304-0424	pH	10 days, 23 hours, 1 minute	J-HT
CH-CCR-W306-0424	pH	10 days, 1 hour, 34 minutes	J-HT
CH-CCR-W307R-0424	pH	11 days, 0 hours, 51 minutes	J-HT
CH-CCR-W308-0424	pH	11 days, 2 hours, 3 minutes	J-HT
CH-CCR-W309-0424	pH	11 days, 5 hours, 50 minutes	J-HT
CH-CCR-FD03-0424	pH	10 days, 23 hours, 20 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability
Iron, dissolved	117%, LCS	85-115%	CH-CCR-M52A-0424 CH-CCR-MW69A-0424 CH-CCR-MW73A-0424 CH-CCR-W301-0424	J-HL
Boron Calcium	116%, 116% 117%, 117%	85-115%	CH-CCR-M52A-0424 CH-CCR-M53A-0424 CH-CCR-M55A-0424 CH-CCR-MW69A-0424 CH-CCR-MW70M-0424 CH-CCR-MW73A-0424 CH-CCR-MW74M-0424	J-HL
Iron	117%, LCS	85-115%	CH-CCR-M52A-0424 CH-CCR-M55A-0424 CH-CCR-MW69A-0424 CH-CCR-MW73A-0424 CH-CCR-MW74M-0424	J-HL
Magnesium Potassium	117%, 116% 116%, LCS	85-115%	CH-CCR-M52A-0424 CH-CCR-M55A-0424 CH-CCR-MW69A-0424 CH-CCR-MW70M-0424 CH-CCR-MW73A-0424 CH-CCR-MW74M-0424	J-HL
Barium Lead	60%, 59% 84%, 84%	85-115%	CH-CCR-MW70M-0424, CH-CCR-MW73A-0424, CH-CCR-MW74M-0424, CH-CCR-M52A-0424, CH-CCR-M53A-0424, CH-CCR-M55A-0424, CH-CCR-MW69A-0424	J/UJ-LL

Notes:
HL = High laboratory control sample (LCS) recovery.
LL = Low LCS recovery.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M52A-0424, CH-CCR-W306-0424, CH-CCR-W307R-0424	Nitrate/Nitrite
CH-CCR-M55A-0424	Ammonia
CH-CCR-MW74M-0424, CH-CCR-W309-0424	Mercury
CH-CCR-W301-0424	Arsenic, Chromium, Cobalt, Lead, Selenium, Thallium
CH-CCR-W303-0424	Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Lithium, DOC
CH-CCR-W304-0424	Chloride, Fluoride, Sulfate, Ammonia

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-W303-0424	Potassium	160%, 156%	70-130%	J-HM
CH-CCR-W303-0424	Sodium	22% RPD	20%	J-HD
CH-CCR-W303-0424	Calcium	-68%, 14%	70-130%	NA4
CH-CCR-W303-0424	Magnesium	56%, MS	70-130%	NA4
CH-CCR-W303-0424	Sodium	3,248%, -41%	70-130%	NA4
CH-CCR-W303-0424	Beryllium	156%, MS	70-130%	NA
CH-CCR-W303-0424	Beryllium	23% RPD	20%	NA
CH-CCR-W309-0424	Mercury	132%, MS	70-130%	NA

Notes:
HD = Imprecision between MS and MSD results.
HM = High matrix spike recovery.
NA = The analyte is not detected in the unspiked native sample and data usability is not adversely affected by potential high analytical bias and/or analytical imprecision.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-W307R-0424	CH-CCR-FD03-0424

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-W304-0424	TDS
CH-CCR-MW73A-0424	pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No) N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit
CH-CCR-FD03-0424, CH-CCR-M52A-0424, CH-CCR-M53A-0424, CH-CCR-M55A-0424, CH-CCR-MW69A-0424, CH-CCR-MW70M-0424, CH-CCR-MW73A-0424, CH-CCR-MW74M-0424, CH-CCR-W301-0424, CH-CCR-W303-0424, CH-CCR-W304-0424, CH-CCR-W306-0424, CH-CCR-W307R-0424, CH-CCR-W308-0424, CH-CCR-W309-0424	Beryllium	0.10 mg/L

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J217592-2	**Review Date:**	6/25/24
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M52A-0424	4/23/2024 16:29	550-217592-2	
CH-CCR-M53A-0424	4/23/2024 13:04	550-217592-4	
CH-CCR-M55A-0424	4/22/2024 10:49	550-217592-6	
CH-CCR-MW69A-0424	4/25/2024 9:58	550-217592-8	
CH-CCR-MW70M-0424	4/25/2024 11:27	550-217592-10	
CH-CCR-MW73A-0424	4/24/2024 15:27	550-217592-12	
CH-CCR-MW74M-0424	4/24/2024 12:04	550-217592-14	
CH-CCR-W301-0424	4/23/2024 9:52	550-217592-16	
CH-CCR-W303-0424	4/23/2024 11:16	550-217592-18	
CH-CCR-W304-0424	4/22/2024 16:34	550-217592-20	
CH-CCR-W306-0424	4/23/2024 14:02	550-217592-22	
CH-CCR-W307R-0424	4/22/2024 14:46	550-217592-24	
CH-CCR-W308-0424	4/22/2024 13:35	550-217592-26	
CH-CCR-FD03-0424	4/22/2024 16:20	550-217592-30	Field duplicate of CH-CCR-W307R-0424

Analytical Methods:

Analyte	Analyte Group	Method
Beryllium	Metals	EPA 200.7

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-W303-0424	Beryllium

a. Are MS recoveries and/or precision within laboratory-specified limits?

(Yes) No N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-W307R-0424	CH-CCR-FD03-0424

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

Sample ID	Analysis

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No (N/A)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes No (N/A)

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J217859	**Review Date:**	5/29/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-MW71A-0424	5/1/2024 18:02	550-217859-1/2	
CH-CCR-MW72M-0424	5/1/2024 19:11	550-217859-3/4	
CH-CCR-MW79A-0424	4/30/2024 19:04	550-217859-5/6	
CH-CCR-FD02-0424	4/30/2024 12:34	550-217859-7/8	Field duplicate of CH-CCR-MW79A-0424
CH-CCR-W305-0424	5/2/2024 10:28	550-217859-9/10	
CH-CCR-W314-0424	4/29/2024 14:51	550-217859-11/12	
CH-CCR-BAP-0424	5/1/2024 11:55	550-217859-13/14	
CH-CCR-Petroglyph-0424	5/1/2024 10:17	550-217859-15/16	
CH-CCR-TannerWash-0424	5/1/2024 9:52	550-217859-17/18	
CH-CCR-TWX4-0424	5/1/2024 16:49	550-217859-19/20	
CH-CCR-TWX5-0424	5/1/2024 16:31	550-217859-21/22	
CH-CCR-TWX6-0424	5/1/2024 16:16	550-217859-23/24	
CH-CCR-TWX7-0424	5/1/2024 15:56	550-217859-25/26	
CH-CCR-TWX8-0424	5/1/2024 11:10	550-217859-27/28	
CH-CCR-TWX9-0424	5/1/2024 17:07	550-217859-29/30	
CH-CCR-TWX10-0424	5/1/2024 10:50	550-217859-31/32	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Dissolved Organic Carbon (DOC)	General Chemistry	SM 5310B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-MW71A-0424	pH	12 days, 21 hours, 9 minutes	J-HT
CH-CCR-MW72M-0424	pH	12 days, 20 hours, 2 minutes	J-HT
CH-CCR-MW79A-0424	pH	13 days, 20 hours, 11 minutes	J-HT
CH-CCR-FD02-0424	pH	14 days, 2 hours, 43 minutes	J-HT
CH-CCR-W305-0424	pH	12 days, 4 hours, 51 minutes	J-HT
CH-CCR-W314-0424	pH	15 days, 0 hours, 30 minutes	J-HT
CH-CCR-BAP-0424	pH	13 days, 3 hours, 35 minutes	J-HT
CH-CCR-Petroglyph-0424	pH	13 days, 5 hours, 15 minutes	J-HT
CH-CCR-TannerWash-0424	pH	13 days, 5 hours, 42 minutes	J-HT
CH-CCR-TWX4-0424	pH	12 days, 22 hours, 49 minutes	J-HT
CH-CCR-TWX5-0424	pH	12 days, 23 hours, 11 minutes	J-HT
CH-CCR-TWX6-0424	pH	14 days, 22 hours, 28 minutes	J-HT
CH-CCR-TWX7-0424	pH	12 days, 23 hours, 48 minutes	J-HT
CH-CCR-TWX8-0424	pH	13 days, 4 hours, 36 minutes	J-HT
CH-CCR-TWX9-0424	pH	12 days, 22 hours, 41 minutes	J-HT
CH-CCR-TWX10-0424	pH	13 days, 5 hours, 0 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Selenium	0.000896 mg/L	None	NA
Ammonia	0.0590 mg/L	None	NA

Notes:
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-MW71A-0424	Chloride, Fluoride, Sulfate, Lithium, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium
CH-CCR-MW72M-0424	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
CH-CCR-TWX6-0424	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
CH-CCR-TWX5-0424	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium, Nitrate/Nitrite
CH-CCR-TannerWash-0424	Ammonia

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-MW71A-0424	Arsenic	132%, MS	70-130%	J-HM
CH-CCR-MW71A-0424	Molybdenum	135%, MS	70-130%	J-HM
CH-CCR-MW72M-0424	Calcium	36% RPD	20%	J-HD

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-MW72M-0424	Sodium	37% RPD	20%	J-HD
CH-CCR-MW72M-0424	Calcium	-5,664%, 11,545%	70-130%	NA4
CH-CCR-MW72M-0424	Magnesium	-263%, -120%	70-130%	NA4
CH-CCR-MW72M-0424	Sodium	-9,320%, 18,006%	70-130%	NA4
CH-CCR-TWX6-0424	Calcium	-12%, -15%	70-130%	NA4
CH-CCR-TWX6-0424	Magnesium	68%, MSD	70-130%	NA4
CH-CCR-TWX6-0424	Sodium	-783%, -946%	70-130%	NA4
CH-CCR-MW71A-0424	Selenium	142%, MS	70-130%	NA
CH-CCR-TWX5-0424	Selenium	132%, MSD	70-130%	NA

Notes:
HD = Imprecision between MS and MSD results.
HM = High MS recovery.
NA = The analyte is not detected in the unspiked native sample and data usability is not adversely affected by potential high analytical bias.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-MW79A-0424	CH-CCR-FD02-0424

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability
CH-CCR-MW79A-0424	CH-CCR-FD02-0424	Sodium	32%	J-FD

Note:
FD = Imprecision between primary and field duplicate results.

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-FD02-0424	Alkalinity
CH-CCR-TWX8-0424	Alkalinity
CH-CCR-BAP-0424	TDS
CH-CCR-TWX4-0424	pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes (No) N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability
CH-CCR-TWX7-0424	Manganese	1.4	3.8	J-TD

Note:
TD = Dissolved concentration is significantly higher than the total concentration.

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No) N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit
CH-CCR-BAP-0424, CH-CCR-FD02-0424, CH-CCR-MW71A-0424, CH-CCR-MW72M-0424, CH-CCR-MW79A-0424, CH-CCR-Petroglyph-0424, CH-CCR-TannerWash-0424, CH-CCR-TWX10-0424, CH-CCR-TWX4-0424, CH-CCR-W305-0424, CH-CCR-W314-0424	Antimony	0.020 mg/L
CH-CCR-BAP-0424, CH-CCR-MW72M-0424	Cobalt	0.010 mg/L

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J217864	**Review Date:**	5/21/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M54-0424	04/30/24 17:50	550-217864-1	
CH-CCR-M59-0424	04/30/24 14:20	550-217864-2	
CH-CCR-M61-0424	04/30/24 15:25	550-217864-3	
CH-CCR-FD01-0424	04/30/24 16:20	550-217864-4	Field duplicate of CH-CCR-M59-0424

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Boron, Calcium	Metals	EPA 200.7
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M54-0424	pH	13 days, 22 hours, 6 minutes	J-HT
CH-CCR-M59-0424	pH	14 days, 21 hours, 32 minutes	J-HT
CH-CCR-M61-0424	pH	14 days, 20 hours, 31 minutes	J-HT
CH-CCR-FD01-0424	pH	14 days, 19 hours, 38 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M59-0424	Chloride, Fluoride, Sulfate, Boron, Calcium

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M59-0424	Sulfate	123%, 73%	80-120%	J-HM, LM [1]
CH-CCR-M59-0424	Sulfate	24% RPD	20% RPD	J-HD [1]
CH-CCR-M59-0424	Chloride	32% RPD	20% RPD	J-HD [1]
CH-CCR-M59-0424	Chloride	174%, 10%	80-120%	NA4

Notes:
[1] Also qualify the sulfate and chloride results from sample CH-CCR-FD01-0424
HD = Imprecision between MS and MSD results.
HM = High MS recovery.
LM = Low MS recovery.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-M59-0424	CH-CCR-FD01-0424

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability
CH-CCR-M59-0424	CH-CCR-FD01-0424	Chloride	27%	J-FD
CH-CCR-M59-0424	CH-CCR-FD01-0424	Sulfate	26%	J-FD

Note:
FD = Imprecision between primary and field duplicate results.

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-M59-0424	TDS, pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No (N/A)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes No (N/A)

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J217871	**Review Date:**	9/5/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M44D-0424	05/02/24 12:00	550-217871-1	
CH-CCR-FD06-0424	05/02/24 16:20	550-217871-2	Field duplicate of CH-CCR-M44D-0424
CH-CCR-M67A-0424	04/29/24 17:19	550-217871-3/4	
CH-CCR-FAP-0424	05/02/24 10:58	550-217871-5/6	
CH-CCR-Geronimo-0424	05/02/24 15:40	550-217871-7/8	
CH-CCR-GeronimoD-0424	05/02/24 14:48	550-217871-9/10	
CH-CCR-HuntB-0424	05/02/24 16:34	550-217871-11/12	
CH-CCR-EW01-0424	05/02/24 14:28	550-217871-13/14	
CH-CCR-EW02-0424	05/02/24 15:04	550-217871-15/16	
CH-CCR-EW03-0424	05/02/24 15:20	550-217871-17/18	
CH-CCR-EW04-0424	05/02/24 16:10	550-217871-19/20	
CH-CCR-GSX1R-0424	05/02/24 15:54	550-217871-21/22	
CH-CCR-EB01-0424	05/02/24 17:00	550-217871-23/24	Equipment Blank

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Boron, Calcium, Iron, Magnesium, Manganese, Beryllium, Potassium, Sodium, Lithium	Metals	EPA 200.7 Rev 4.4
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Thallium, Selenium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500 H+P
Dissolved Organic Carbon (DOC)	General Chemistry	SM 5310B
Total Organic Carbon (TOC)	General Chemistry	SM 5310B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M44D-0424	pH	6 Days, 2 Hours, 23 Minutes	J, HT
CH-CCR-FD06-0424	pH	5 Days, 22 Hours, 1 Minutes	J, HT
CH-CCR-M67A-0424	pH	8 Days, 21 Hours, 23 Minutes	J, HT
CH-CCR-FAP-0424	pH	6 Days, 3 Hours, 46 Minutes	J, HT
CH-CCR-Geronimo-0424	pH	5 Days, 23 Hours, 6 Minutes	J, HT
CH-CCR-HuntB-0424	pH	5 Days, 23 Hours, 59 Minutes	J, HT
CH-CCR-EW01-0424	pH	5 Days, 22 Hours, 14 Minutes	J, HT
CH-CCR-EW02-0424	pH	6 Days, 0 Hours, 21 Minutes	J, HT
CH-CCR-EW03-0424	pH	5 Days, 23 Hours, 47 Minutes	J, HT
CH-CCR-EW04-0424	pH	5 Days, 23 Hours, 33 Minutes	J, HT
CH-CCR-GSX1R-0424	pH	5 Days, 22 Hours, 44 Minutes	J, HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Dissolved Arsenic	0.82 ug/L	CH-CCR-EW01-0424, CH-CCR-EW02-0424, CH-CCR-EW03-0424, CH-CCR-GSX1R-0424	J, EB
Arsenic	0.00088 mg/L	CH-CCR-M44D-0424, CH-CCR-FD06-0424, CH-CCR-EW01-0424, CH-CCR-EW02-0424, CH-CCR-GSX1R-0424	J, EB
Selenium	0.00067 mg/L	CH-CCR-EW01-0424, CH-CCR-EW04-0424	J, EB
DOC DOC – Duplicate DOC - Quad	0.69 mg/L 0.72 mg/L 0.69 mg/L	CH-CCR-Geronimo-0424, CH-CCR-HuntB-0424, CH-CCR-EW01-0424, CH-CCR-EW02-0424, CH-CCR-EW03-0424, CH-CCR-EW04-0424, CH-CCR-GSX1R-0424	J, EB

Note:
EB = The same analyte was detected in the sample and the associated equipment blank, and the concentration detected in the sample was less than five times the concentration detected in the blank.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M44D-0424	Chloride, Fluoride, Sulfate, Boron, Calcium, Beryllium, Lithium, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium, Mercury,
CH-CCR-FAP-0424	Nitrate, DOC
CH-CCR-EW01-0424	Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Beryllium, Sodium; Dissolved Arsenic, Cobalt, Selenium
CH-CCR-GSX1R-0424	DOC
CH-CCR-Geronimo-0424	Ammonia

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-EW01-0424	Potassium	140%, 142%	70 - 130%	J, HM
CH-CCR-EW01-0424	Calcium	-35%, -48%	70 - 130%	NA4
CH-CCR-EW01-0424	Magnesium	65%, MSD	70 - 130%	NA4
CH-CCR-EW01-0424	Sodium	5329%, 3834%	70 - 130%	NA4
CH-CCR-FAP-0424	Nitrate Nitrite as N	52%, 51%	80 - 120%	UJ, LM

Notes:
HM = High MS recovery.
LM = Low MS recovery.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-M44D-0424	CH-CCR-FD06-0424

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability
CH-CCR-M44D-0424	CH-CCR-FD06-0424	TDS	27%	J-FD

Note:

FD = Imprecision between primary and field duplicate results.

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-M44D-0424	TDS, pH
CH-CCR-FAP-0424	pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes (No) N/A

If No:

Sample ID	Analyte	Effect on Data Usability
CH-CCR-M44D-0424 (and CHCCR-FD06-0424)	TDS	J, HD

Notes:
HD = Imprecision between duplicate analyses.

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes (No) N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability
CH-CCR-FAP-0424	Manganese	37	59	J-TD

Notes:
TD = Dissolved metal concentration is higher than the total metal concentration.

12. Other QC Issues? Yes (No)

If Yes:

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J218992	**Review Date:**	6/17/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-BAPTD-0424	05/28/24 16:08	550-218992-1	
CH-CCR-TWX3-0424	05/28/24 15:56	550-218992-2	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Total Organic Carbon (TOC)	General Chemistry	SM 5310B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-BAPTD-0424	pH	9 days, 1 hour, 56 minutes	J-HT
CH-CCR-TWX3-0424	pH	9 days, 2 hours, 8 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Potassium	0.657 mg/L	None	NA
Sodium	1.30 mg/L	None	NA
TDS	24.0 mg/L	None	NA

Note:
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-BAPTD-0424	Chloride, Fluoride, Sulfate

a. Are MS recoveries and/or precision within laboratory-specified limits?

(Yes) No N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-BAPTD-0424	Alkalinity

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No (N/A)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No) N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit
CH-CCR-BAPTD-0424, CH-CCR-TWX3-0424	Antimony	0.010 mg/L

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J218992	**Review Date:**	7/3/2024
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-BAPTD-0424	05/28/24 16:08	550-218992-1	
CH-CCR-TWX3-0424	05/28/24 15:56	550-218992-2	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Ammonia	General Chemistry	EPA 350.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B
Total Organic Carbon (TOC)	General Chemistry	SM 5310B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-BAPTD-0424	pH	9 days, 1 hour, 56 minutes	J-HT
CH-CCR-TWX3-0424	pH	9 days, 2 hours, 8 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Potassium	0.657 mg/L	None	NA
Sodium	1.30 mg/L	None	NA
TDS	24.0 mg/L	None	NA

Note:
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-BAPTD-0424	Chloride, Fluoride, Sulfate

a. Are MS recoveries and/or precision within laboratory-specified limits?

(Yes) No N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (circled) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-BAPTD-0424	Alkalinity

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes (circled) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No N/A (circled)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Other QC issues? Yes (circled) No N/A

If Yes:

Sample ID	Analyte	QC Issue	Effect on Data Usability
CH-CCR-BAPTD-0424	Antimony	Detected concentration is less than the reporting limit	J-DL
	Cadmium		
CH-CCR-TWX3-0424	Antimony		
	Cadmium		
	Chromium		

Note:

DL = Detected concentration is less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J218993	**Review Date:**	6/14/24
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M60-0424	05/28/24 15:46	550-218993-1	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Boron, Calcium	Metals	EPA 200.7
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M60-0424	pH	9 days, 2 hours, 24 minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
TDS	24.0 mg/L	None	NA

Note:
NA = not applicable

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

Sample ID	Analysis

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No (N/A)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes No (N/A)

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J219966	**Review Date:**	9/5/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M64A-0524	05/28/24 10:39	550-219966-1	

Analytical Methods:

Analyte	Analyte Group	Method
Lithium	Metals	200.7 Rev 4.4

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

Sample ID	Analysis

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No (N/A)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? Yes (No)

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Eurofins Environment Testing		
Sample Delivery Group:	J220345	**Review Date:**	9/16/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M60-0724	07/01/24 13:56	550-220345-1	
CH-CCR-M59-0724	07/01/24 14:53	550-220345-2	
CH-CCR-FD01-0724	07/01/24 16:20	550-220345-3	Field Duplicate of CH-CCR-M60-0724

Analytical Methods:

Analyte	Analyte Group	Method
Boron	Metals	200.7 Rev 4.4
Chloride, Sulfate	Anions	EPA 300.0

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   es No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-M60-0724	CH-CCR-FD01-0724

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

Sample ID	Analysis

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No (N/A)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? Yes (No)

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

(Yes) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	75700-75727	**Review Date:**	12/30/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Caitlin Riechmann

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
CH-CCR-W317-1024	10/17/2024 15:54	75700	
CH-CCR-FD04-1024	10/17/2024 16:55	75701	Field duplicate of CH-CCR-W317-1024
CH-CCR-FD05-1024	10/21/2024 16:20	75702	Field duplicate of CH-CCR-M63A-1024
CH-CCR-FD06-1024	10/22/2024 16:20	75703	Field duplicate of CH-CCR-W307R-1024
CH-CCR-M63A-1024	10/21/2024 10:53	75704	
CH-CCR-M55A-1024	10/22/2024 12:09	75705	
CH-CCR-W308-1024	10/22/2024 15:00	75706	
CH-CCR-W307R-1024	10/22/2024 16:39	75707	
CH-CCR-W304-1024	10/23/2024 11:09	75708	
CH-CCR-W302-1024	10/23/2024 13:13	75709	
CH-CCR-MW78A-1024	10/23/2024 15:41	75710	
CH-CCR-W301-1024	10/24/2024 10:45	75711	
CH-CCR-W303-1024	10/24/2024 13:10	75712	
CH-CCR-M53A-1024	10/24/2024 15:30	75713	
CH-CCR-W306-1024	10/24/2024 17:04	75714	
CH-CCR-MW69A-1024	10/25/2024 10:20	75715	
CH-CCR-M52A-1024	10/28/2024 15:02	75716	
CH-CCR-MW70M-1024	10/28/2024 16:31	75717	
CH-CCR-BudHunt-1024	10/29/2024 10:17	75718	
CH-CCR-MW72M-1024	10/29/2024 11:42	75719	
CH-CCR-MW71A-1024	10/29/2024 15:02	75720	
CH-CCR-MW73A-1024	10/29/2024 16:12	75721	
CH-CCR-W314-1024	10/30/2024 10:03	75722	
CH-CCR-MW74M-1024	10/30/2024 12:27	75723	
CH-CCR-M64A-1024	10/30/2024 15:48	75724	
CH-CCR-MW77A-1024	10/30/2024 17:05	75725	
CH-CCR-M43A-1024	10/31/2024 10:23	75726	
CH-CCR-W126R-1024	10/31/2024 14:03	75727	

Analytical Methods:

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radionuclides	HPGE

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes No (N/A)

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-W317-1024	CH-CCR-FD04-1024
CH-CCR-M63A-1024	CH-CCR-FD05-1024
CH-CCR-W307R-1024	CH-CCR-FD06-1024

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability
CH-CCR-M63A-1024	CH-CCR-FD05-1024	Total Radium	117%	J-FD
CH-CCR-W307R-1024	CH-CCR-FD06-1024	Total Radium	NC	UJ/J-FD

Note:
FD = Imprecision between primary and field duplicate results.
NC = Not calculable.

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes No (N/A)

If Yes:

Sample ID	Analysis

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are non-detect results sufficiently low to meet EPA and Alternative GWPS primary drinking water criteria?

(Yes) No

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	S.U.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	75769-75774	**Review Date:**	12/04/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Caitlin Riechmann

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
CH-CCR-MW66A-1024	11/4/2024 11:22	75769	
CH-CCR-M45A-1024	11/4/2024 12:57	75770	
CH-CCR-M51A-1024	11/6/2024 13:15	75771	
CH-CCR-M50A-1024	11/6/2024 14:11	75772	
CH-CCR-W123R-1024	11/6/2024 15:07	75773	
CH-CCR-W125-1024	11/6/2024 16:05	75774	

Analytical Methods:

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radionuclides	HPGE

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes No (N/A)

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes No (N/A)

If Yes:

Sample ID	Analysis

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	S.U.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	75810-75822	**Review Date:**	12/11/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Caitlin Riechmann

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
CH-CCR-M44D-1024	11/11/2024 15:02	75810	
CH-CCR-W305-1024	11/11/2024 17:22	75811	
CH-CCR-MW79A-1024	11/11/2024 18:10	75812	
CH-CCR-M67A-1024	11/12/2024 12:37	75813	
CH-CCR-M46A-1024	11/12/2024 15:13	75814	
CH-CCR-MW65A-1024	11/12/2024 16:40	75815	
CH-CCR-HuntB-1024	11/12/2024 17:27	75816	
CH-CCR-FAP-1024	11/13/2024 11:48	75817	
CH-CCR-EW01-1024	11/13/2024 12:20	75818	
CH-CCR-EW02-1024	11/13/2024 12:42	75819	
CH-CCR-EW03-1024	11/13/2024 13:17	75820	
CH-CCR-GSX1R-1024	11/13/2024 13:52	75821	
CH-CCR-EW04-1024	11/13/2024 14:12	75822	

Analytical Methods:

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radionuclides	HPGE

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability

6. Target analytes detected in the blanks? Yes No (N/A)

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

Spiked Sample ID	Spiked Analyte(s)

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes No (N/A)

If Yes:

Sample ID	Analysis

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	S.U.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Pace Analytical		
Sample Delivery Group:	L1792413/10714206	**Review Date:**	11/21/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-W317-1024	10/17/24 15:54	L1792413-01/ 10714206001	
CH-CCR-FD04-1024	10/17/24 16:55	L1792413-02/ 10714206002	Field duplicate of CH-CCR-W317-1024

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium	Metals	200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium	Metals	200.8
Mercury	Metals	EPA 245.1 and/or 7470A
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   Yes (No) N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-W317-1024	TDS	8 Days	J-HT
CH-CCR-W317-1024	pH	8 Days, 5 Hours, 36 Minutes	J-HT
CH-CCR-FD04-1024	TDS	8 Days	J-HT
CH-CCR-FD04-1024	pH	10 Days, 17 Hours, 15 Minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks?

   (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Arsenic	0.15 ug/L	None	NA

Note:
NA = not applicable.

7. LCS recoveries within laboratory-specified limits?

   (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-W317-1024	Chloride, Fluoride, Sulfate, Mercury (245.1 and 7470A), Beryllium, Boron, Calcium, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-W317-1024	Chloride	0%, 0%	80-120%	NA4
CH-CCR-W317-1024	Sulfate	0%, 0%	80-120%	NA4

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-W317-1024	CH-CCR-FD04-1024

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability
CH-CCR-W317-1024	CH-CCR-FD04-1024	Molybdenum	173%	J-FD

Notes:
FD = Imprecision between primary and field duplicate results.

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-W317-1024	Chloride, Fluoride, Sulfate
CH-CCR-FD04-1024	pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No (N/A)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? Yes (No)

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

Note:
DL = The detected concentration was less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Pace Analytical		
Sample Delivery Group:	L1793219/10714203	**Review Date:**	1/14/2025
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M63A-1024	10/21/24 10:53	L1793219-01/10714203001	
CH-CCR-FD01-1024	10/21/24 12:40	L1793219-02/10714203002	Field duplicate of CH-CCR-M59-1024
CH-CCR-M59-1024	10/21/24 13:48	L1793219-03/10714203003	
CH-CCR-M61-1024	10/21/24 15:13	L1793219-04/10714203004	
CH-CCR-FD02-1024	10/21/24 13:37	L1793219-05/10714203005	Field duplicate of CH-CCR-M61-1024
CH-CCR-FD05-1024	10/21/24 16:20	L1793219-06/10714203006	Field duplicate of CH-CCR-M63A-1024

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium	Metals	200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium	Metals	200.8
Mercury	Metals	EPA 245.1 and/or 7470A
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M63A-1024	pH	7 Days, 20 Hours, 32 Minutes	J-HT
CH-CCR-FD01-1024	pH	7 Days, 18 Hours, 45 Minutes	J-HT
CH-CCR-M59-1024	pH	7 Days, 17 Hours, 37 Minutes	J-HT
CH-CCR-M61-1024	pH	7 Days, 16 Hours, 12 Minutes	J-HT
CH-CCR-FD02-1024	pH	7 Days, 17 Hours, 48 Minutes	J-HT
CH-CCR-FD05-1024	pH	7 Days, 15 Hours, 5 Minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks?

   (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Arsenic	0.15 ug/L	None	NA

Note:
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M63A-1024	Fluoride, Mercury by 7470A and by 245.1, Beryllium, Boron, Calcium, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium
CH-CCR-FD02-1024	Chloride, Fluoride, Sulfate
CH-CCR-FD05-1024	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-FD02-1024	Chloride	0%, MS	80-120%	NA4
CH-CCR-FD02-1024	Sulfate	0%, MS	80-120%	NA4

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-M63A-1024	CH-CCR-FD05-1024
CH-CCR-M59-1024	CH-CCR-FD01-1024
CH-CCR-M61-1024	CH-CCR-FD02-1024

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-FD01-1024	pH
CH-CCR-M63A-1024	Chloride, Fluoride, Sulfate
CH-CCR-FD02-1024	Chloride, Fluoride, Sulfate

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes (No) N/A

If No:

Sample ID	Analyte	Effect on Data Usability
CH-CCR-M63A-1024 (and field duplicate CH-CCR-FD05-1024)	Fluoride	J-HD

Notes:
HD = Imprecision between primary and laboratory duplicate results.

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

Yes No (N/A)

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? (Yes) No

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

Note:
DL = The detected concentration was less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Pace Analytical		
Sample Delivery Group:	L1793489/10714271	**Review Date:**	01/09/2025
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M55A-1024	10/22/24 12:09	L1793489-01/10714271001	
CH-CCR-W308-1024	10/22/24 15:00	L1793489-02/10714271002	
CH-CCR-W307R-1024	10/22/24 16:39	L1793489-03/10714271003	
CH-CCR-FD06-1024	10/22/24 16:20	L1793489-04/10714271004	Field duplicate of CH-CCR-W307R-1024
CH-CCR-W304-1024	10/23/24 11:09	L1793489-05/10714271005	
CH-CCR-W302-1024	10/23/24 13:13	L1793489-06/10714271006	
CH-CCR-MW78A-1024	10/23/24 15:41	L1793489-07/10714271007	
CH-CCR-W301-1024	10/24/24 10:45	L1793489-08/10714271008	
CH-CCR-M53A-1024	10/24/24 15:30	L1793489-09/10714271009	
CH-CCR-W303-1024	10/24/24 13:10	L1793489-10/10714271010	
CH-CCR-W306-1024	10/24/24 17:04	L1793489-11/10714271011	
CH-CCR-MW69A-1024	10/25/24 10:20	L1793489-12/10714271012	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Nitrate/Nitrite	Anions	EPA 353.2
Alkalinity	General Chemistry	SM 2320B
Ammonia	General Chemistry	EPA 350.1
Dissolved Organic Carbon (DOC)	General Chemistry	SM 5310B
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
pH	General Chemistry	SM 4500H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes (No) N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M55A-1024	pH	7 Days, 6 Hours, 21 Minutes	J-HT
CH-CCR-W308-1024	pH	7 Days, 3 Hours, 30 Minutes	J-HT
CH-CCR-W307R-1024	pH	7 Days, 1 Hours, 51 Minutes	J-HT
CH-CCR-FD06-1024	pH	7 Days, 2 Hours, 10 Minutes	J-HT
CH-CCR-W304-1024	pH	6 Days, 7 Hours, 21 Minutes	J-HT
CH-CCR-W302-1024	pH	6 Days, 5 Hours, 17 Minutes	J-HT
CH-CCR-MW78A-1024	pH	6 Days, 2 Hours, 49 Minutes	J-HT
CH-CCR-W301-1024	pH	5 Days, 7 Hours, 45 Minutes	J-HT
CH-CCR-M53A-1024	pH	5 Days, 3 Hours	J-HT
CH-CCR-W303-1024	pH	5 Days, 5 Hours, 20 Minutes	J-HT
CH-CCR-W306-1024	pH	5 Days, 20 Hours, 3 Minutes	J-HT
CH-CCR-MW69A-1024	pH	5 Days, 2 Hours, 47 Minutes	J-HT
CH-CCR-M55A-1024	Mercury	54 Days	UJ-HT
CH-CCR-W308-1024	Mercury	54 Days	UJ-HT
CH-CCR-W307R-1024	Mercury	54 Days	UJ-HT
CH-CCR-FD06-1024	Mercury	54 Days	UJ-HT
CH-CCR-W304-1024	Mercury	53 Days	UJ-HT
CH-CCR-W302-1024	Mercury	53 Days	UJ-HT
CH-CCR-MW78A-1024	Mercury	53 Days	UJ-HT
CH-CCR-W301-1024	Mercury	52 Days	UJ-HT
CH-CCR-M53A-1024	Mercury	52 Days	UJ-HT
CH-CCR-W303-1024	Mercury	52 Days	UJ-HT
CH-CCR-W306-1024	Mercury	52 Days	UJ-HT

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-MW69A-1024	Mercury	51 Days	UJ-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
DOC	0.108 mg/L	None	NA
Beryllium	0.69 ug/L	CH-CCR-M55A-1024 CH-CCR-W308-1024 CH-CCR-W307R-1024 CH-CCR-FD06-1024 CH-CCR-MW78A-1024	U-MB

Note:
MB = The concentration detected in the sample was less than five times the concentration detected in the blank.
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M55A-1024	Mercury, Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
CH-CCR-MW69A-1024	Mercury, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium
CH-CCR-W306-1024	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
CH-CCR-W308-1024	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M55A-1024	Potassium	140%, 141%	70-130%	J-HM
CH-CCR-W306-1024	Potassium	143%, MS	70-130%	J-HM
CH-CCR-W308-1024	Lithium	357%, MS	70-130%	J-LM
CH-CCR-M55A-1024	Calcium	-96%, -68%	70-130%	NA4
CH-CCR-M55A-1024	Magnesium	58%, MS	70-130%	NA4
CH-CCR-M55A-1024	Sodium	-1500%, -887%	70-130%	NA4
CH-CCR-W306-1024	Magnesium	65%, MS	70-130%	NA4
CH-CCR-W306-1024	Sodium	-1640%, MS	70-130%	NA4

Notes:
HM = High MS and/or MSD recovery.
LM = Low MS recovery.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-W307R-1024	CH-CCR-FD06-1024

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-W307R-1024, CH-CCR-W301-1024	Alkalinity
CH-CCR-W306-1024	DOC
CH-CCR-W303-1024	pH

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? (Yes) No

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

Note:
DL = The detected concentration was less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA and Alternative GWPS primary drinking water criteria?

Yes (No) N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit
All samples	Beryllium	0.005 mg/L, sensitivity limit met using the detection limit of 0.00044 mg/L or the sample concentration U qualified due to a blank detection.

Cholla CCR Data Review

Laboratory Name:	Pace Analytical		
Sample Delivery Group:	L1795452/ 10715045	**Review Date:**	12/17/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Caitlin Riechmann

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-BUDHUNT-1024	10/29/24 10:17	L1795452-01/ 10715045001	
CH-CCR-MW72M-1024	10/29/24 11:42	L1795452-02/ 10715045002	
CH-CCR-MW71A-1024	10/29/24 15:02	L1795452-03/ 10715045003	
CH-CCR-MW73A-1024	10/29/24 16:12	L1795452-04/ 10715045004	
CH-CCR-W314-1024	10/30/24 10:03	L1795452-05/ 10715045005	
CH-CCR-MW74M-1024	10/30/24 12:27	L1795452-06/ 10715045006	
CH-CCR-MW64A-1024	10/30/24 15:48	L1795452-07/ 10715045007	
CH-CCR-MW77A-1024	10/30/24 17:05	L1795452-08/ 10715045008	
CH-CCR-M43A-1024	10/31/24 10:23	L1795452-09/ 10715045009	
CH-CCR-W126R-1024	10/31/24 14:03	L1795452-10/ 10715045010	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium Iron, Magnesium, Manganese, Potassium, Sodium	Metals	200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium	Metals	200.8
Mercury	Metals	EPA 245.1
Nitrate/Nitrite	Anions	EPA 353.2
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
Alkalinity	General Chemistry	SM 2320B
Dissolve Organic Carbon (DOC)	General Chemistry	5310B
Ammonia	General Chemistry	350.1
pH	General Chemistry	SM 4500H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? Yes (No)

If No, provide details.

Samples CH-CCR-MW77A-1024, CH-CCR-M43A-1024, CH-CCR-W126R-1024 were not assigned to any analyses on the COCs. Eurofins analyzed the samples for Metals.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-BUDHUNT-1024	pH	7 Days, 8 Hours, 3 Minutes	J-HT
CH-CCR-MW72M-1024	pH	7 Days, 6 Hours, 38 Minutes	J-HT
CH-CCR-MW71A-1024	pH	7 Days, 3 Hours, 18 Minutes	J-HT
CH-CCR-MW73A-1024	pH	7 Days, 2 Hours, 8 Minutes	J-HT
CH-CCR-W314-1024	pH	6 Days, 8 Hours, 17 Minutes	J-HT
CH-CCR-MW74M-1024	pH	6 Days, 5 Hours, 53 Minutes	J-HT
CH-CCR-MW64A-1024	pH	6 Days, 2 Hours, 32 Minutes	J-HT
CH-CCR-MW77A-1024	pH	6 Days, 1 Hours, 15 Minutes	J-HT
CH-CCR-M43A-1024	pH	5 Days, 7 Hours, 57 Minutes	J-HT
CH-CCR-W126R-1024	pH	5 Days, 4 Hours, 17 Minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Fluoride	99.4 ug/L	CH-CCR-BUDHUNT-1024	J-MB
Boron	16.3 ug/L	None	NA
Sodium	67.9 ug/L	None	NA

Note:
MB = Method blank detection.
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-BUDHUNT-1024	Ammonia, Nitrate/Nitrite, Dissolved Organic Carbon, Mercury
CH-CCR-MW72M-1024	Ammonia
CH-CCR-MW71A-1024	Nitrate/Nitrite
CH-CCR-W314-1024	Dissolved Organic Carbon
CH-CCR-MW77A-1024	Mercury
CH-CCR-M43A-1024	Beryllium, Boron, Calcium Iron, Magnesium, Manganese, Potassium, Sodium
CH-CCR-W126R-1024	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M43A-1024	Calcium	167%, MS	70-130%	NA4
CH-CCR-M43A-1024	Magnesium	147%, MS	70-130%	NA4

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M43A-1024	Sodium	-919%, MS	70-130%	NA4

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-W314-1024	Alkalinity
CH-CCR-BUDHUNT-1024	Ammonia, pH, Mercury
CH-CCR-MW72M-1024	Ammonia, Nitrate/Nitrite, pH, Dissolved Organic Carbon
CH-CCR-MW73A-1024	Nitrate/Nitrite
CH-CCR-MW74M-1024	Dissolved Organic Carbon

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? (Yes) No

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

Note:
DL = The detected concentration was less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Pace Analytical		
Sample Delivery Group:	L1795547/10715044	**Review Date:**	12/02/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Caitlin Riechmann

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M52A-1024	10/28/2024 15:02	L1795547-01/ 10715044001	
CH-CCR-MW70M-1024	10/28/2024 16:31	L1795547-02/ 10715044002	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 9056A
Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 245.1
Nitrate/Nitrite	Anions	EPA 353.2
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
Alkalinity	General Chemistry	SM 2320B
Dissolved Organic Carbon (DOC)	General Chemistry	5310B
Ammonia	General Chemistry	350.1
pH	General Chemistry	EPA 9040C

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? Yes (No) N/A

If no, provide details.

Samples CH-CCR-M52A-1024 and CH-CCR-MW70M-1024 were received by the laboratory at a temperature of 17.9°C. WSP J qualified the detected and UJ qualified the non-detect chloride, fluoride, sulfate, ammonia, nitrate/nitrite, alkalinity, pH, TDS, and DOC results from all samples reviewed in this report because of the receipt temperature exceedance. (J/UJ-RT)

Note:
RT = Elevated receipt temperature.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   Yes (No) N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M52A-1024	TDS	8 Days	J-HT
CH-CCR-M52A-1024	pH	8 Days, 7 Hours, 18 Minutes	J-HT
CH-CCR-MW70M-1024	TDS	8 Days	J-HT
CH-CCR-MW70M-1024	pH	8 Days, 5 Hours, 49 Minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Boron	16.3 ug/L	None	NA
Sodium	67.9 ug/L	None	NA

Note:
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M52A-1024	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
CH-CCR-MW70M-1024	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M52A-1024	Calcium	169%, MS	70-130%	NA4
CH-CCR-M52A-1024	Magnesium	143%, MS	70-130%	NA4
CH-CCR-M52A-1024	Sodium	-46%, -125%	70-130%	NA4

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

Sample ID	Analysis

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? (Yes) No

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

Note:
DL = The detected concentration was less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Pace Analytical		
Sample Delivery Group:	L1797996/10715534	**Review Date:**	12/23/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-MW66A-1024	11/04/24 11:22	L1797996-01/ 10715534001	
CH-CCR-M45A-1024	11/04/24 12:57	L1797996-02/ 10715534002	
CH-CCR-MW51A-1024	11/06/24 13:15	L1797996-03/ 10715534003	
CH-CCR-MW50A-1024	11/06/24 14:11	L1797996-04/ 10715534004	
CH-CCR-W123R-1024	11/06/24 15:07	L1797996-05/ 10715534005	
CH-CCR-W125-1024	11/06/24 16:05	L1797996-06/ 10715534006	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium	Metals	200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium	Metals	200.8
Mercury	Metals	EPA 245.1
Nitrate/Nitrite	Anions	EPA 353.2
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
Alkalinity	General Chemistry	SM 2320B
Dissolve Organic Carbon (DOC)	General Chemistry	5310B
Ammonia	General Chemistry	350.1
pH	General Chemistry	SM 4500H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-MW66A-1024	pH	8 Days, 5 Hours, 53 Minutes	J-HT
CH-CCR-M45A-1024	pH	8 Days, 8 Hours, 23 Minutes	J-HT
CH-CCR-MW51A-1024	pH	6 Days, 4 Hours, 0 Minutes	J-HT
CH-CCR-MW50A-1024	pH	6 Days, 3 Hours, 4 Minutes	J-HT
CH-CCR-W123R-1024	pH	6 Days, 2 Hours, 8 Minutes	J-HT
CH-CCR-W125-1024	pH	6 Days, 5 Hours, 15 Minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-MW66A-1024	Nitrate/Nitrite, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium, Dissolved Arsenic, Dissolved Cobalt
CH-CCR-MW51A-1024	Mercury, Dissolved Iron, Dissolved Manganese
CH-CCR-M45A-1024	Beryllium, Boron, Calcium

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M45A-1024	Calcium	175%, 145%	70-130%	NA4

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-MW66A-1024	Nitrate/Nitrite

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? (Yes) No

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

Note:
DL = The detected concentration was less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA and Alternative GWPS primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Pace Analytical		
Sample Delivery Group:	L1800186/10716159	**Review Date:**	12/23/24
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Marie Bever

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M44D-1024	11/11/24 15:02	L1800186-01/ 10716159001	
CH-CCR-M54-1024	11/11/24 16:37	L1800186-02/ 10716159002	
CH-CCR-W305-1024	11/11/24 17:22	L1800186-03/ 10716159003	
CH-CCR-MW79A-1024	11/11/24 18:10	L1800186-04/ 10716159004	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium	Metals	200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium	Metals	200.8
Mercury	Metals	EPA 245.1
Nitrate/Nitrite	Anions	EPA 353.2
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
Alkalinity	General Chemistry	SM 2320B
Dissolve Organic Carbon (DOC)	General Chemistry	5310B
Ammonia	General Chemistry	350.1
pH	General Chemistry	SM 4500H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M44D-1024	pH	4 Days, 6 Hours, 43 Minutes	J-HT
CH-CCR-M54-1024	pH	4 Days, 23 Hours, 43 Minutes	J-HT
CH-CCR-W305-1024	pH	4 Days, 4 Hours, 23 Minutes	J-HT
CH-CCR-MW79A-1024	pH	6 Days, 17 Hours, 30 Minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
Dissolve Organic Carbon	0.170 mg/L	None	NA
Sodium	504 ug/L	None	NA

Note:
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-MW79A-1024	Dissolve Organic Carbon
CH-CCR-W305-1024	Mercury
CH-CCR-M44D-1024	Beryllium, Boron, Calcium, Magnesium

a. Are MS recoveries and/or precision within laboratory-specified limits?

(Yes) No N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-MW79A-1024	Total Dissolved Solids, Alkalinity
CH-CCR-W305-1024	Dissolve Organic Carbon

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? (Yes) No

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

Note:
DL = The detected concentration was less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA or Alternative GWPS primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Pace Analytical		
Sample Delivery Group:	L1800893/10716376	**Review Date:**	12/31/2024
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Caitlin Riechmann

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M67A-1024	11/12/24 12:37	L1800893-01	
CH-CCR-M46A-1024	11/12/24 15:13	L1800893-02	
CH-CCR-M65A-1024	11/12/24 16:40	L1800893-03	
CH-CCR-HUNTB-1024	11/12/24 17:27	L1800893-04	
CH-CCR-FAP-1024	11/13/24 11:48	L1800893-05	
CH-CCR-EW01-1024	11/13/24 12:20	L1800893-06	
CH-CCR-EW02-1024	11/13/24 12:42	L1800893-07	
CH-CCR-GSX4-1024	11/13/24 12:59	L1800893-08	
CH-CCR-EW03-1024	11/13/24 13:17	L1800893-09	
CH-CCR-GSX3-1024	11/13/24 13:37	L1800893-10	
CH-CCR-GSX1R-1024	11/13/24 13:52	L1800893-11	
CH-CCR-EW04-1024	11/13/24 14:12	L1800893-12	
CH-CCR-PETRO-1024	11/13/24 15:21	L1800893-13	
CH-CCR-TANNER-1024	11/13/24 15:45	L1800893-14	
CH-CCR-TWX3-1024	11/13/24 16:04	L1800893-15	
CH-CCR-TWX4-1024	11/13/24 16:20	L1800893-16	
CH-CCR-TWX5-1024	11/13/24 16:38	L1800893-17	
CH-CCR-TWX6-1024	11/13/24 16:46	L1800893-18	
CH-CCR-TWX7-1024	11/13/24 16:55	L1800893-19	
CH-CCR-TWX8-1024	11/13/24 17:10	L1800893-20	
CH-CCR-TWX9-1024	11/13/24 17:20	L1800893-21	
CH-CCR-TWX10-1024	11/13/24 17:33	L1800893-22	
CH-CCR-BAPTD-1024	11/14/24 09:23	L1800893-23	
CH-CCR-BAP-1024	11/14/24 09:53	L1800893-24	
CH-CCR-EB01-1024	11/14/24 10:40	L1800893-25	Equipment Blank

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium	Metals	200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Silver, Thallium	Metals	200.8
Mercury	Metals	EPA 245.1
Nitrate/Nitrite	Anions	EPA 353.2
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
Alkalinity	General Chemistry	SM 2320B
Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC)	General Chemistry	5310B
Ammonia	General Chemistry	350.1
pH	General Chemistry	SM 4500H+B

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for TDS within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M67A-1024	pH	4 Days, 9 Hours, 23 Minutes	J-HT
CH-CCR-M46A-1024	pH	7 Days, 22 Hours, 48 Minutes	J-HT
CH-CCR-M65A-1024	pH	7 Days, 2 Hours, 40 Minutes	J-HT
CH-CCR-HUNTB-1024	pH	4 Days, 4 Hours, 33 Minutes	J-HT
CH-CCR-FAP-1024	pH	7 Days, 2 Hours, 13 Minutes	J-HT
CH-CCR-EW01-1024	pH	6 Days, 7 Hours, 0 Minutes	J-HT
CH-CCR-EW02-1024	pH	4 Days, 22 Hours, 58 Minutes	J-HT
CH-CCR-GSX4-1024	pH	4 Days, 22 Hours, 41 Minutes	J-HT
CH-CCR-EW03-1024	pH	4 Days, 22 Hours, 23 Minutes	J-HT
CH-CCR-GSX3-1024	pH	4 Days, 22 Hours, 3 Minutes	J-HT
CH-CCR-GSX1R-1024	pH	4 Days, 21 Hours, 48 Minutes	J-HT
CH-CCR-EW04-1024	pH	4 Days, 21 Hours, 28 Minutes	J-HT
CH-CCR-PETRO-1024	pH	6 Days, 3 Hours, 59 Minutes	J-HT
CH-CCR-TANNER-1024	pH	6 Days, 3 Hours, 35 Minutes	J-HT
CH-CCR-TWX3-1024	pH	4 Days, 19 Hours, 36 Minutes	J-HT
CH-CCR-TWX4-1024	pH	4 Days, 19 Hours, 20 Minutes	J-HT
CH-CCR-TWX5-1024	pH	6 Days, 2 Hours, 42 Minutes	J-HT
CH-CCR-TWX6-1024	pH	6 Days, 2 Hours, 34 Minutes	J-HT
CH-CCR-TWX7-1024	pH	4 Days, 18 Hours, 45 Minutes	J-HT
CH-CCR-TWX8-1024	pH	6 Days, 2 Hours, 10 Minutes	J-HT
CH-CCR-TWX9-1024	pH	3 Days, 4 Hours, 40 Minutes	J-HT
CH-CCR-TWX10-1024	pH	3 Days, 4 Hours, 27 Minutes	J-HT
CH-CCR-BAPTD-1024	pH	4 Days, 2 Hours, 17 Minutes	J-HT

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-BAP-1024	pH	4 Days, 1 Hours, 47 Minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
TOC	0.162 mg/L	CH-CCR-PETRO-1024, CH-CCR-TANNER-1024, CH-CCR-TWX6-1024	U-MB
TOC	0.202 mg/L	CH-CCR-PETRO-1024, CH-CCR-TANNER-1024, CH-CCR-TWX4-1024, CH-CCR-TWX5-1024, CH-CCR-TWX6-1024, CH-CCR-TWX7-1024, CH-CCR-TWX8-1024, CH-CCR-TWX9-1024, CH-CCR-BAPTD-1024	U-EB
DOC	1.13 mg/L	CH-CCR-M46A-1024, CH-CCR-M65A-1024, CH-CCR-HUNTB-1024, CH-CCR-EW01-1024, CH-CCR-EW02-1024, CH-CCR-GSX3-1024, CH-CCR-GSX1R-1024, CH-CCR-EW04-1024, CH-CCR-TANNER-1024, CH-CCR-TWX3-1024, CH-CCR-TWX5-1024, CH-CCR-TWX8-1024, CH-CCR-TWX9-1024, CH-CCR-TWX10-1024, CH-CCR-BAPTD-1024, CH-CCR-BAP-1024	U-EB
Iron	9.8 ug/L	CH-CCR-HUNTB-1024, CH-CCR-GSX1R-1024, CH-CCR-PETRO-1024, CH-CCR-TANNER-1024, CH-CCR-TWX8-1024, CH-CCR-TWX9-1024	U-EB
Chloride	1.16 mg/L	None	NA
DOC	0.169 mg/L	None	NA

TOC	0.103 mg/L	None	NA
Sodium	504 ug/L	None	NA
Calcium	74.0 ug/L	None	NA
Sodium	616 ug/L	None	NA
Barium	0.13 ug/L	None	NA

Note:
EB = Equipment blank detections.
MB = Laboratory blank detections.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M67A-1024	Ammonia, Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium, Dissolved Iron, Dissolved Manganese
CH-CCR-M65A-1024	Ammonia
CH-CCR-TWX9-1024	Ammonia, Dissolved Iron, Dissolved Manganese
CH-CCR-EW02-1024	Nitrate/Nitrite
CH-CCR-GSX4-1024	Nitrate/Nitrite
CH-CCR-TWX8-1024	DOC, TOC, Dissolved Arsenic, Dissolved Cobalt
CH-CCR-EW04-1024	TOC
CH-CCR-HUNTB-1024	Mercury
CH-CCR-M65A-1024	Mercury
CH-CCR-BAP-1024	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium, Dissolved Arsenic, Dissolved Cobalt
CH-CCR-GSX1R-1024	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
CH-CCR-GSX3-1024	Dissolved Iron, Dissolved Manganese
CH-CCR-TWX10-1024	Dissolved Iron, Dissolved Manganese, Dissolved Arsenic, Dissolved Cobalt
CH-CCR-BAPTD-1024	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium
CH-CCR-M46A-1024	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Silver, Thallium, Dissolved Arsenic, Dissolved Cobalt

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-EW04-1024	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Silver, Thallium

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-BAP-1024	Calcium	45%, MS	70-130	NA4
CH-CCR-BAP-1024	Sodium	-734%, MS	70-130	NA4
CH-CCR-M67A-1024	Calcium	141%, MS	70-130	NA4
CH-CCR-M67A-1024	Sodium	56%, -114%	70-130	NA4
CH-CCR-GSX1R-1024	Boron	41%, MS	70-130	NA4
CH-CCR-GSX1R-1024	Calcium	-203%, MS	70-130	NA4
CH-CCR-GSX1R-1024	Magnesium	-18%, MS	70-130	NA4
CH-CCR-GSX1R-1024	Sodium	-652%, MS	70-130	NA4

Note:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-FAP-1024	TDS
CH-CCR-TWX5-1024	Alkalinity
CH-CCR-M46A-1024	Chloride, Fluoride, Sulfate, Ammonia
CH-CCR-M65A-1024	Chloride, Fluoride, Sulfate, pH
CH-CCR-HUNTB-1024	Ammonia
CH-CCR-TWX10-1024	Ammonia
CH-CCR-EW02-1024	Nitrate/Nitrite
CH-CCR-GSX4-1024	Nitrate/Nitrite
CH-CCR-TWX8-1024	pH
CH-CCR-TWX9-1024	DOC, TOC
CH-CCR-M67A-1024	TOC
CH-CCR-PETRO-1024	TOC

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? (Yes) No

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

Note:

DL = The detected concentration was less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA or Alternative GWPS primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

Cholla CCR Data Review

Laboratory Name:	Pace Analytical		
Sample Delivery Group:	L1809880/75996	**Review Date:**	01/09/2025
Validator's Name:	Morgan Schimelfenig	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Note
CH-CCR-M60-1224	12/10/2024 16:34	L1809880-01	
CH-CCR-W309-1224	12/13/2024 10:52	L1809880-02/ 75996	
CH-CCR-FD03-1224	12/10/2024 15:51	L1809880-03	Field Duplicate of CH-CCR-M60-1224

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Mercury	Metals	EPA 7470A
Nitrate/Nitrite	Anions	EPA 353.2
Total Dissolved Solids (TDS)	General Chemistry	SM 2540C
Alkalinity	General Chemistry	SM 2320B
Dissolved Organic Carbon (DOC)	General Chemistry	SM 5310B
Ammonia	General Chemistry	EPA 350.1
pH	General Chemistry	EPA 9040C
Radium 228, Radium 228, Total Radium	Radionucleotides	HPGE

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

Sample Login Matched COC? (Yes) No

If no, provide details.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

Other sample receipt issues? Yes (No)

If yes, provide details.

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
CH-CCR-M60-1224	pH	7 Days, 16 Hours, 22 Minutes	J-HT
CH-CCR-W309-1224	pH	4 Days, 22 Hours, 4 Minutes	J-HT
CH-CCR-FD03-1224	pH	7 Days, 17 Hours, 5 Minutes	J-HT

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection	Effect on Data Usability
DOC	0.221 mg/L	None	NA

Note:
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

Analyte	Recovery	QC Limits	Affected Samples	Effect on Data Usability
Antimony	117%	85-115%	CH-CCR-W309-1224	None

Note:
Recovery was high and the analyte was not detected in the associated sample.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

Spiked Sample ID	Spiked Analyte(s)
CH-CCR-M60-1224	Fluoride, Sulfate, Boron, Calcium
CH-CCR-W309-1224	Dissolved Arsenic, Dissolved Cobalt

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Sample ID	Analyte	RPD or Recovery	Accuracy or Recovery Limits	Effect on Data Usability
CH-CCR-M60-1224	Fluoride	87.8%, MSD	90-110%	J-LM [1]
CH-CCR-M60-1224	Sulfate	0%, 0%	90-110%	NA4

Notes:
[1] Result from sample CH-CCR-FD03-1224 was qualified too.
LM = Low matrix spike recovery. Result may be biased low.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
CH-CCR-M60-1224	CH-CCR-FD03-1224

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

Primary Sample ID	Duplicate Sample ID	Analyte	RPD	Effect on Data Usability

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
CH-CCR-FD03-1224	TDS
CH-CCR-W309-1224	Alkalinity, DOC
CH-CCR-M60-1224	Chloride, Fluoride, Sulfate, pH, Boron, Calcium

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

Sample ID	Analyte	Effect on Data Usability

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

Sample ID	Analyte	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Effect on Data Usability

12. Any other QC issues? (Yes) No

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

Note:
DL = The detected concentration was less than the reporting limit.

13. Are non-detect results sufficiently low to meet EPA and/or Alternative GWPS primary drinking water criteria?

Yes (circled) No N/A

Analyte	List	MCL	Alternative GWPS	Units
Antimony	Appendix IV	0.006	--	mg/L
Arsenic	Appendix IV	0.010	--	mg/L
Barium	Appendix IV	2	--	mg/L
Beryllium	Appendix IV	0.004	--	mg/L
Boron	Appendix III	--	--	mg/L
Cadmium	Appendix IV	0.005	--	mg/L
Calcium	Appendix III	--	--	mg/L
Chloride	Appendix III	--	--	mg/L
Chromium	Appendix IV	0.1	--	mg/L
Cobalt	Appendix IV	--	0.006	mg/L
Fluoride	Appendix III/IV	4.0	--	mg/L
Lead	Appendix IV	--	0.015	mg/L
Lithium	Appendix IV	--	0.040	mg/L
Mercury	Appendix IV	0.002	--	mg/L
Molybdenum	Appendix IV	--	0.1	mg/L
pH	Appendix III	--	--	s.u.
Radium 226 + Radium 228	Appendix IV	5	--	pCi/L
Selenium	Appendix IV	0.05	--	mg/L
Sulfate	Appendix III	--	--	mg/L
Total Dissolved Solids	Appendix III	--	--	mg/L
Thallium	Appendix IV	0.002	--	mg/L

If No, list affected samples and analytes.

Sample ID	Analyte	Reporting Limit

APPENDIX

G

WSP TECHNICAL MEMORANDUM DOCUMENTING THE STATISTICAL ANALYSIS OF APPENDIX III CONSTITUENT DATA COLLECTED FOR THE BAM THROUGH JULY 2024

TECHNICAL MEMORANDUM

To:	Arizona Public Service Company	Project No.	US0023513.9708-US-2024 Cholla CCR Compliance SVC
By:	Samantha O'Shea	Reviewed by:	Maren Henley, PE
Tel:	602-733-6000	CC:	File
Date:	November 25, 2024		

Re: CCR GROUNDWATER DETECTION MONITORING
STATISTICAL ANALYSIS AND RESULTS FOR THE BOTTOM ASH MONOFILL
APPENDIX III CONSTITUENT DATA COLLECTED THROUGH JULY 2024
Arizona Public Service Company Cholla Power Plant – Navajo County, Arizona

1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) presents the results of a statistical evaluation of groundwater monitoring data collected from monitoring wells downgradient of the Bottom Ash Monofill (BAM) located at the Arizona Public Service Company (APS) Cholla Power Plant (Site) in Navajo County, Arizona. The statistical evaluation was performed by Geosciences Consulting LLC (Geosciences Consulting), a subcontractor to WSP USA Environment and Infrastructure, Inc. (WSP) pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020).

The BAM is a Site CCR unit that is currently in detection monitoring. The CCR Rule requires semi-annual evaluations of Appendix III constituent data collected from BAM downgradient wells on an ongoing basis to determine if a statistically significant increase (SSI) over the respective background threshold values (BTVs) presented in Attachment A. The statistical evaluation documented herein incorporates Appendix III constituent data collected from BAM downgradient wells M-59, M-60, and M-61 and BAM background well M-54 during the April 2024 semi-annual sampling event and the July 2024 re-sampling event (collectively, the Spring 2024 event). The statistical evaluation was performed using the results of the 12 initial (or baseline) sampling rounds conducted prior to November 2017 and 14 detection monitoring sampling rounds beginning in September 2017. One re-sampling confirmation event was performed in July 2024. Groundwater concentrations are then compared to updated M-54 background levels, represented by the interwell or intrawell BTVs calculated for each Appendix III constituent presented in Attachment B. The BTVs presented in this Tech Memo were updated in October 2024 by Geosciences Consulting in accordance with the Statistical Data Analysis Work Plan (SDAWP) for the Site (WSP, 2023) including data through May 2024. Details of the results of the statistical evaluation are presented in Section 2.0.

2.0 STATISTICAL EVALUATION RESULTS

Attachment A presents the statistical evaluation conducted by Geosciences Consulting. The results of the Spring 2024 BAM downgradient well statistical evaluation are as follows:

- There are currently no SSIs over their respective BTVs for Appendix III constituents.
- Appendix III constituents detected at concentrations exceeding their respective BTVs during the Spring 2024 groundwater sampling event.
    - Boron and calcium in April 2024 at background well M-54.

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wsp.com1

- Chloride and sulfate in April 2024 at downgradient well M-59.
  - Resampling was performed in July 2024, and both constituents were below their associated BTVs.
  - The BTVs were later updated (Attachment B), and the chloride detection was no longer in exceedance of the BTV (i.e., the resampling for chloride was found unnecessary after the fact).
- Boron in April 2024 at downgradient well M-60.
  - Resampling was performed in July 2024, and boron was below the BTV at M-60.

- A statistically significant decreasing temporal trend is evident for concentrations of boron and chloride at M-60.
- A statistically significant increasing temporal trend is evident for concentrations of sulfate at M-59 and M-60. Sulfate did not exceed their intrawell BTVs, and no SSI is present. .
- As noted in Attachment A, it is recommended to remain consistent when defining the statistical detection limits in the detection monitoring evaluations. The reporting limit (RL) and the method detection limit (MDL) are used to establish the sample's detection status (i.e; detect or non-detect). The detection limit has historically been set at the laboratory RL and due to recent laboratory dilutions, the MDL has been used to achieve a detection limit below the respective BTV. Detections between MDL and RL are estimated concentrations and are qualified with a J qualifier. During the statistical evaluation, the detection limit is then evaluated (if the result is reported as non-detect) to determine if it is an outlier within the dataset and to determine any level of uncertainty. Changes in detection limits are evaluated on a case by case basis and if the MDLs are continuedly required as the limit of detection to achieve the BTV, then the BTV determination will be reevaluated to ensure the BTV is set at the appropriate value based on the changes in the RL. This re-evaluation will ensure that the laboratory can effectively achieve detection limits at or below the BTVs in cases where the sample is not detected.

As identified in the previous statistical evaluation (WSP, 2024), routine updates of the BTVs for Appendix III constituents would be performed to correctly represent current background conditions at the Site. It is important to adequately establish background conditions that accurately represent the quality of groundwater that has not been affected by the CCR unit (40 CFR §257.91) (WSP, 2023). This evaluation was conducted by Geosciences Consulting and is presented in Attachment B. The results of the BAM BTV evaluation (Attachment B) are as follows:

- All Appendix III constituent BTVs increased slightly excluding the following which remained unchanged:
  - The lower limit for pH and
  - Fluoride.

3.0 RECOMMENDATIONS

Based on the results of the statistical evaluation presented in Attachment A and pursuant to the CCR Rule, continuation of detection monitoring at a semi-annual frequency for Appendix III constituents at the BAM is warranted because there are currently no SSIs over Appendix III constituent background levels.

Based on current laboratory limitations, it is recommended to define the detection limit as the RL or MDL as described above. The statistical evaluation requires consistency when comparing non-detect values and these will be evaluated during each statistical evaluation.

The BAM SDAWP recommends updating BTVs every couple of years. Attachment B has updated this recommendation from every 2 to 3 years to every 3 to 4 years. This change from the previous frequency of every 2 to 3 years reflects increased confidence in the BTVs as a result of the accumulation of additional data over time.

4.0 REFERENCES

- Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).
- United States Environmental Protection Agency (USEPA), 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007*. Environmental Protection Agency Office of Resource Conservation and Recovery.
- WSP USA Environment & Infrastructure, Inc. (WSP), 2023. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Cholla Power Plant, Navajo County, Arizona. Prepared for Arizona Public Service. January 10, 2023.
- WSP, 2024. CCR Groundwater Detection Monitoring. Statistical Analysis and Results for the Bottom Ash Monofill. Appendix III Constituent Data Collected through November 2023, Cholla Power Plant, Navajo County, Arizona. Prepared for Arizona Public Service. April 8, 2024.

ATTACHMENT A

DETECTION MONITORING STATISTICAL EVALUATION OF BAM -

GEOSCIENCE CONSULTING STRATEGIES LLC

Technical Memorandum

To: Maren Henley, PE
WSP USA Environment & Infrastructure Inc.

From: Carla Landrum, PhD, PG
Geoscience Consulting Strategies LLC

Date: October 17, 2024

Subject: **CCR Groundwater Semiannual Detection Monitoring**
Statistical Evaluation of BAM Data through May 2024
Arizona Public Service Company Cholla Power Plant – Navajo County, Arizona

1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) documents the ongoing statistical evaluation of detection monitoring (i.e., Appendix III constituents) groundwater data associated with the Bottom Ash Monofill (BAM) located at the Arizona Public Service Company (APS) Cholla Power Plant (Cholla) in Navajo County, Arizona. This routine statistical evaluation is completed by Geoscience Consulting Strategies LLC in accordance with the *Statistical Data Analysis Work Plan* (SDAWP) for the Cholla Power Plant and the Coal Combustion Residuals (CCR) Rule (Federal Register, 2020; WSP USA Environment & Infrastructure Inc. [WSP], 2023).

This statistical evaluation incorporates the spring 2024 semiannual detection monitoring at the BAM. The following sections present data inputs, statistical methods, results and recommendations for the subject analysis.

2.0 DATA INPUTS

The BAM groundwater monitoring well network consists of one background monitoring well (M-54) and three compliance (i.e., downgradient) monitoring wells (M-59, M-60 and M-61).

The BAM detection monitoring program is scheduled to perform statistical evaluations semiannually. The period of evaluation for this subject analysis ranges from November 2015 through May 2024 and includes:

1) the minimum of eight initial, or baseline, sampling rounds required by the CCR Rule (spanning December 2015 to July 2017) and fourteen subsequent sampling rounds of detection monitoring that occur on a semi-annual frequency (spanning September 2017 to May 2024, as shown in the table inset below); and

2) a July 2024 resampling event to confirm the initial exceedance declarations for sulfate during the April sampling event at M-59 and for boron during the May sampling event at M-60 (see Table 2).

Due principally to the CCR Rule requirement that a minimum of eight initial rounds of data be collected from the site prior to October 17, 2017, the frequency of sample collection prior to this date is short and variable (e.g., biweekly to quarterly sampling).

BAM Sampling Round	Date
1st	September 2017
2nd	April 2018
3rd	November 2018
4th	May 2019
5th	December 2019
6th	June 2020
7th	November 2020
8th	April 2021
9th	November 2021
10th	May 2022
11th	October 2022
12th	April 2023
13th	November 2023
14th	April & May 2024

This data evaluation evaluates between 26 and 30 samples each for boron, calcium, chloride, sulfate, field pH and total dissolved solids (TDS) within each compliance monitoring well. Appendix A contains the contents of the data upload tables for the subject analysis. Data inputs for this statistical analysis were prepared, and provided by, WSP. The Appendix III analytes are listed by name or chemical symbol as column headers in the ProUCL data upload table. By ProUCL convention, each analyte has a corresponding data column (indicated with a "D_" prefix) that indicates if the analyte was detected or not at a concentration that exceeds the analytical reporting limit, where detectable concentrations are symbolized by a "1" and non-detectable concentrations are symbolized by a "0." The detection frequency is 100% for all sample data listed in Appendix A.

Table 1 details the not-to-exceed Background Threshold Values (BTVs) and method of calculation for the BAM. Per the SDAWP (WSP, 2023), the BTVs are updated over time. The dates in Table 1 reflect the sampling period that represents the current BAM BTVs. The premise and justification for BTV updates are put forth in the SDAWP (WSP, 2023) and previous Technical Memorandums (see Wood, 2021; Wood, 2019).

3.0 METHODS

This statistical analysis follows the statistical methods and approaches put forth in the SDAWP (WSP, 2023) and the United States Environmental Protection Agency (US EPA) Unified Guidance (2009). The subject statistical analysis consists of: 1) exploratory data analysis (EDA), including outlier analysis, calculating summary statistics, temporal trend analysis for constituent-well pairings and fitting a statistical distribution model (i.e., Goodness-of-Fit Test Statistics) to sample populations and 2) comparing the April and May 2024 sample concentrations to corresponding not-to-exceed BTVs in Table 1. If an exceedance exists, the statistical significance of this exceedance is assessed through the prescribed resampling strategy.

4.0 RESULTS

Table 2 summarizes: 1) which Appendix III constituents exhibit exceedances, if applicable, above their respective BTVs by compliance well and 2) which constituents exhibit statistically significant ($p<0.05$) temporal trends.

Appendix B contains the raw ProUCL EDA outputs as reference for the following statistical findings:

Monitoring Well M-59. The April 2024 sampling event resulted in an initial exceedance for sulfate at this monitoring location. The July 2024 resample concentration falls below the BTV for sulfate, thereby declaring the April 2024 initial exceedance for this constituent statistically insignificant ($p<0.05$). The remaining Appendix III constituent concentrations do not show exceedances over their respective BTVs for the April 2024 sampling event.

The statistically significant ($p<0.05$) decreasing trend for chloride becomes statistically insignificant ($p<0.05$) at this monitoring location during the April 2024 and July 2024 (re)sampling events. Sulfate demonstrates a statistically significant ($p<0.05$) increasing trend during the April 2024 and July 2024 (re)sampling events. There are no significant ($p<0.05$) temporal trends for the remaining Appendix III constituents. .

Monitoring Well M-60. The May 2024 sampling event resulted in an initial exceedance for boron at this monitoring location. The July 2024 resample concentration falls below the BTV for boron, thereby declaring the May 2024 initial exceedance for boron statistically insignificant ($p<0.05$). The remaining Appendix III constituent concentrations at this monitoring location do not show exceedances over their respective BTVs for the May 2024 sampling event.

During the May 2024 sampling event, the statistically significant ($p<0.05$) trends for boron (decreasing) and sulfate (increasing) previously observed at this monitoring location are now statistically insignificant. The statistically significant ($p<0.05$) decreasing trend for calcium persists during the May 2024 sampling event. Chloride demonstrates a statistically significant ($p<0.05$) decreasing trend during the May 2024 sampling event. There are no significant ($p<0.05$) temporal trends for the remaining Appendix III constituents.

Monitoring Well M-61. The Appendix III constituent concentrations at this monitoring location do not show exceedances over their respective BTVs for the November 2023 sampling event.

There are no significant ($p<0.05$) temporal trends for Appendix III constituents at this monitoring location.

5.0 RECOMMENDATIONS

Based on the results of this statistical analysis, it is recommended the BAM remain in detection monitoring per §257.94 of the CCR Rule.

Finally, when submitting future ProUCL data upload tables (i.e., Appendix A), it is recommended to describe if the reporting limit or method detection limit is used to define the detection status of a sample result and define the value of this limit. Changing the method of determining "detection limit" may affect the resulting statistical analysis and BTV determination.

6.0 REFERENCES

Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).

WSP USA Environment & Infrastructure Inc. [WSP], 2023, 2023. Statistical Data Analysis Work Plan. Coal Combustion Residual Rule Groundwater Monitoring System Compliance. Cholla Power Plant. Navajo County, Arizona. Prepared for Arizona Public Service. January 30, 2023.

Wood, 2021. *CCR Groundwater Detection Monitoring Statistical Evaluation of October 2020 & Preceding Bottom Ash Monofill Data*. Arizona Public Service Cholla Power Plant – Navajo County, Arizona. March 31, 2021.

Wood, 2019. *Alternative Source Demonstration for Fluoride at the BAM*. Arizona Public Service Cholla Power Plant. Navajo County, Arizona. August 14, 2019.

United States Environmental Protection Agency (US EPA), 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007. Environmental Protection Agency Office of Resource Conservation and Recovery.

ATTACHMENTS

Table 1 – BTVs for the Cholla BAM
Table 2 – Cholla BAM Downgradient Sample Data Summary

Appendix A – ProUCL Data Upload Table
Appendix B – ProUCL EDA Output Files

TABLES

Table 1
BTVs for the Cholla BAM
Appendix III Statistical Analysis

Background Well	Dates Corresponding to Data Used to Derive UPL	Constituent	Interwell BTVs (Calculation Method)	Units	Resampling Strategy[1]
M-54	12/3/2015-4/30/2024	Boron	0.56 (P-UPL)	mg/L	1 of 2
M-54	12/3/2015-4/30/2024	Calcium	110 (NP-UPL)	mg/L	1 of 3
M-54	12/3/2015-4/30/2024	Chloride	1,700 (NP-UPL)	mg/L	1 of 3
M-54	12/3/2015-4/30/2024	Fluoride	1.8 (NP-UPL)[2]	mg/L	1 of 3
M-54	12/3/2015-4/30/2024	pH (upper limit)	8.2 (NP-UPL)	SU	1 of 3
M-54	12/3/2015-4/30/2024	pH (lower limit)	7.3 (NP-LPL)	SU	1 of 3
M-54	12/3/2015-4/30/2024	Sulfate	420 (NP-UPL)	mg/L	1 of 3
M-54	12/3/2015-4/30/2024	TDS	3300 (NP-UPL)	mg/L	1 of 3

Compliance Well	Dates Corresponding to Data Used to Derive UPL	Constituent	Intrawell BTVs (Calculation Method)	Units	Resampling Strategy[1]
M-60	12/3/2015-5/28/2024	Fluoride	1.7 (NP-UPL)	mg/L	1 of 3
M-61	12/3/2015-5/28/2024	Fluoride	1.6 (NP-UPL)	mg/L	1 of 3

Notes:
BAM = Bottom Ash Pond
BTV = background threshold value
LPL = lower prediction limit
mg/L = milligrams per liter
NP = Non Parametric
P = Parametric
SU = standard units
TDS = total dissolved solids
UPL(T) = upper predicition limit (trend)

[1] A 1 of 2 resampling strategy is in place for interwell parametric prediction limits. A 1 of 3 resampling strategy is in place for non-parametric prediction limits and the limit represents the maximum concentration value of the data set (i.e., first order statistic). BTVs were updated in October 2024.
[2] Interwell BTV for flouride is applicable to M-59.

Table 2
Cholla BAM Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
M-59	7803_O	03-Dec-15	*0.5*	*87*	*1300*	*1.3*	*7.53*	*340*	*2700*
M-59	CH-M-59-0316_O	10-Mar-16	*0.48*	*85*	*1400*	*1.3*	*7.57*	*350*	*2700*
M-59	CH-CCR-M59-516_O	20-May-16	*0.49*	*86*	*1400*	*1.4*	---	*340*	*2700*
M-59	CH-CCR-M59-816_O	27-Aug-16	*0.5*	*89*	*1400*	*1.4*	*7.6*	*350*	*2700*
M-59	CH-CCR-M59-916_O	22-Sep-16	*0.5*	*88*	*1300*	*1.4*	*7.8*	*340*	*2900*
M-59	CH-CCR-M59-217_O	22-Feb-17	*0.48*	*86*	*1200*	*1.3*	*7.8*	*330*	*2800*
M-59	CH-CCR-M59-41117_O	11-Apr-17	*0.49*	*90*	*1400*	*1.3*	*8.1*	*350*	*2800*
M-59	CH-CCR-M59-42417_O	24-Apr-17	*0.52*	*89*	*1300*	*1.4*	*7.7*	*350*	*2800*
M-59	CH-CCR-M59-51917_O	19-May-17	*0.5*	*93*	*1400*	*1.4*	*7.8*	*360*	*2700*
M-59	CH-CCR-M59-52517_O	25-May-17	*0.5*	*88*	*1300*	*1.4*	*7.6*	*350*	*2700*
M-59	CH-CCR-M59-62917_O	29-Jun-17	*0.49*	*84*	*1400*	*1.5*	*7.8*	*370*	*2500*
M-59	CH-CCR-M59-72917_O	29-Jul-17	*0.53*	*92*	*1300*	*1.5*	*7.6*	*340*	*2800*
M-59	CH-CCR-M59-90517_O	05-Sep-17	*0.51*	*90*	*1300*	*1.4*	*7.7*	*360*	*2700*
M-59	CH-CCR-M59-120717_O	07-Dec-17	0.49	86	1400	1.4	7.7	350	2700
M-59	CH-CCR-M-59-52518_O	25-May-18	0.49	85	1400	1.4	7.5	350	2700
M-59	CH-CCR-M-59-102618	26-Oct-18	0.48	88	1400	1.4	7.6	360	2500
M-59	CH-CCR-M59-40919	09-Apr-19	0.5	86	1200	1.4	7.9	330	2700
M-59	CH-CCR-M59-102319	23-Oct-19	0.48	84	1400	1.3	7.5	350	2800
M-59	CH-CCR-M59-0520	07-May-20	0.5	89	1200	1.8	7.7	350	2800
M-59	CH-CCR-M59-1020	21-Oct-20	0.48	85	1300	1.4	7.5	340	2700
M-59	CH-CCR-M59-0421	16-Apr-21	0.49	87	1200	1.4	7.6	340	2800
M-59	CH-CCR-M59-1021	24-Oct-21	0.49	84	1300	1.4	7.7	400	2300
M-59	CH-CCR-M59-1121	19-Nov-21	NA	NA	NA	NA	NA	360	2600
M-59	CH-CCR-M59-0522	13-May-22	0.5	89	1200	1.4	7.9	350	2900
M-59	CH-CCR-M59-0822	30-Aug-22	---	---	---	---	7.6	---	---
M-59	CH-CCR-M59-1022	19-Oct-22	0.48	79	1200	1.4	7.6	350	2700
M-59	CH-CCR-M59-0423	12-Apr-23	0.51	93	1300	1.4	7.8	360	2800
M-59	CH-CCR-M59-1023	21-Nov-23	0.53	90	740	1.3	7.7	320	2800
M-59	CH-CCR-M59-0424	30-Apr-24	0.51	86	1700	1.4	7.7	**430**	2800
M-59	CH-CCR-M59-0724	01-Jul-24	---	---	1300	---	---	350	---
		Units:	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
		BTV [1,2]:	*0.56*	*110*	*1700*	*1.8*	*8.2/7.3*	*420*	*3300*
		Temporal Trend [3]:	*None*	*None*	*None*	*None*	*None*	*Increasing*	*None*

Table 2
Cholla BAM Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
M-60	7801_O	03-Dec-15	*0.54*	*88*	*1400*	*1.3*	*7.56*	*350*	*2800*
M-60	CH-M-60A-0316_O	09-Mar-16	*0.5*	*86*	*1400*	*1.4*	*7.83*	*350*	*2800*
M-60	CH-CCR-M60-516_O	20-May-16	*0.5*	*89*	*1400*	*1.5*	---	*350*	*2800*
M-60	CH-CCR-M60-816_O	27-Aug-16	*0.52*	*90*	*1400*	*1.5*	*7.5*	*360*	*2800*
M-60	CH-CCR-M60-916_O	22-Sep-16	*0.51*	*88*	*1300*	*1.4*	*7.8*	*350*	*3000*
M-60	CH-CCR-M60-217_O	22-Feb-17	*0.52*	*91*	*1300*	*1.4*	*7.8*	*340*	*2800*
M-60	CH-CCR-M60-41117_O	11-Apr-17	*0.48*	*90*	*1400*	*1.4*	*8*	*360*	*2900*
M-60	CH-CCR-M60-42417_O	24-Apr-17	*0.53*	*86*	*1400*	*1.4*	*7.8*	*350*	*2700*
M-60	CH-CCR-M60-51917_O	19-May-17	*0.53*	*92*	*1400*	*1.4*	*7.7*	*360*	*2800*
M-60	CH-CCR-M60-52517_O	25-May-17	*0.51*	*86*	*1300*	*1.4*	*7.7*	*350*	*2800*
M-60	CH-CCR-M60-62917_O	29-Jun-17	*0.51*	*84*	*1500*	*1.5*	*7.7*	*440*	*2500*
M-60	CH-CCR-M60-72917_O	29-Jul-17	*0.53*	*89*	*1400*	*1.5*	*7.6*	*370*	*2800*
M-60	CH-CCR-M60-90517_O	05-Sep-17	*0.53*	*90*	*1400*	*1.5*	*7.6*	*360*	*2800*
M-60	CH-CCR-M60-120717_O	07-Dec-17	0.5	85	1500	1.4	7.6	360	2900
M-60	CH-CCR-M-60-52518_O	25-May-18	0.5	83	1400	1.5	7.5	350	2800
M-60	CH-CCR-M-60-102618	26-Oct-18	0.49	88	1400	1.4	7.7	350	2600
M-60	CH-CCR-M60-40919	09-Apr-19	0.51	84	1300	1.4	7.7	350	2800
M-60	CH-CCR-M60-102219	22-Oct-19	0.5	85	1400	1.4	7.6	360	2800
M-60	CH-CCR-M60-0520	07-May-20	0.5	88	1200	1.7	7.7	350	2900
M-60	CH-CCR-M60-1020	21-Oct-20	0.48	82	1400	1.4	7.5	340	2900
M-60	CH-CCR-M60-0421	16-Apr-21	0.49	85	1300	1.5	7.8	340	4200
M-60	CH-CCR-M60-0721	07-Jul-21	---	---	---	---	---	---	2700
M-60	CH-CCR-M60-1021	24-Oct-21	0.49	85	1300	1.5	7.6	450	2900
M-60	CH-CCR-M60-1121	19-Nov-21	NA	NA	NA	NA	NA	370	2200
M-60	CH-CCR-M60-0522	13-May-22	0.5	87	1400	1.4	7.8	360	3800
M-60	CH-CCR-M60-0822	31-Aug-22	---	---	---	---	---	---	2900
M-60	CH-CCR-M60-1022	20-Oct-22	0.48	80	1300	1.5	7.5	400	2700
M-60	CH-CCR-M60-0123	26-Jan-23	---	---	1400	1.5	---	380	---
M-60	CH-CCR-M60-0523	10-May-23	0.51	79	1400	1.4	7.7	370	2800
M-60	CH-CCR-M60-1023	20-Nov-23	0.53	88	1300	1.4	7.6	350	2900
M-60	CH-CCR-M60-0424	28-May-24	**0.58**	96	1200	1.4	7.6	330	2800
M-60	CH-CCR-M60-0724	01-Jul-24	0.52	---	---	---	---	---	---
		Units:	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
		BTV [1,2]:	*0.56*	*110*	*1700*	*1.7*	*8.2/7.3*	*420*	*3300*
		Temporal Trend [3]:	*None*	*Decreasing*	*Decreasing*	*None*	*None*	*None*	*None*

Table 2
Cholla BAM Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
M-61	7802_O	03-Dec-15	*0.51*	*90*	*1400*	*1.3*	*7.22*	*350*	*2800*
M-61	CH-M-61-0316_O	10-Mar-16	*0.49*	*90*	*1400*	*1.4*	*7.59*	*340*	*2800*
M-61	CH-CCR-M61-516_O	20-May-16	*0.49*	*89*	*1400*	*1.4*	*---*	*350*	*2800*
M-61	CH-CCR-M61-816_O	27-Aug-16	*0.5*	*90*	*1400*	*1.5*	*7.5*	*360*	*2900*
M-61	CH-CCR-M61-916_O	22-Sep-16	*0.5*	*90*	*1300*	*1.4*	*7.9*	*350*	*3000*
M-61	CH-CCR-M61-217_O	22-Feb-17	*0.5*	*92*	*1100*	*1.4*	*7.8*	*340*	*2700*
M-61	CH-CCR-M61-41117_O	11-Apr-17	*0.5*	*93*	*1700*	*1.4*	*8*	*420*	*3000*
M-61	CH-CCR-M61-42417_O	24-Apr-17	*0.52*	*88*	*1400*	*1.4*	*7.7*	*360*	*2700*
M-61	CH-CCR-M61-51917_O	19-May-17	*0.5*	*92*	*1400*	*1.3*	*7.8*	*370*	*2800*
M-61	CH-CCR-M61-52517_O	25-May-17	*0.51*	*92*	*1400*	*1.4*	*7.7*	*370*	*2800*
M-61	CH-CCR-M61-62917_O	29-Jun-17	*0.5*	*86*	*1500*	*1.5*	*7.8*	*380*	*2700*
M-61	CH-CCR-M61-72917_O	29-Jul-17	*0.52*	*94*	*1300*	*1.5*	*7.6*	*360*	*2900*
M-61	CH-CCR-M61-90517_O	05-Sep-17	*0.5*	*91*	*1400*	*1.5*	*7.6*	*360*	*2800*
M-61	CH-CCR-M61-120717_O	07-Dec-17	0.49	88	1500	1.4	7.6	360	2900
M-61	CH-CCR-M-61-52518_O	25-May-18	0.48	87	1400	1.5	7.5	390	2800
M-61	CH-CCR-M-61-102618	26-Oct-18	0.48	91	1400	1.4	7.5	360	2600
M-61	CH-CCR-M61-40919	09-Apr-19	0.5	88	1300	1.4	7.7	340	2800
M-61	CH-CCR-M61-102219	22-Oct-19	0.48	87	1400	1.4	7.8	350	2700
M-61	CH-CCR-M61-0520	07-May-20	0.51	93	1300	1.6	7.7	350	3000
M-61	CH-CCR-M61-1020	21-Oct-20	0.48	88	1400	1.4	7.5	350	2700
M-61	CH-CCR-M61-0421	16-Apr-21	0.49	91	1300	1.5	7.8	340	2900
M-61	CH-CCR-M61-1021	24-Oct-21	0.48	88	1400	1.4	7.6	400	3200
M-61	CH-CCR-M61-1121	19-Nov-21	---	---	---	---	---	370	2300
M-61	CH-CCR-M61-0522	13-May-22	0.49	90	1200	1.4	7.6	360	3800
M-61	CH-CCR-M61-0822	31-Aug-22	---	---	---	---	---	---	2900
M-61	CH-CCR-M61-1022	19-Oct-22	0.49	86	1300	1.5	7.7	360	2800
M-61	CH-CCR-M61-0423	12-Apr-23	0.51	97	1400	1.4	7.8	350	2900
M-61	CH-CCR-M61-1023	20-Nov-23	0.53	93	1300	1.3	7.7	350	2900
M-61	CH-CCR-M61-0424	30-Apr-24	0.51	90	1400	1.4	7.7	330	2700
	Units:		*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
	BTV [1,2]:		*0.56*	*110*	*1700*	*1.6*	*8.2/7.3*	*420*	*3300*
	Temporal Trend [3]:		*None*	*None*	*None*	*None*	*None*	*None*	*None*

Table 2
Cholla BAM Downgradient Sample Data Summary
Appendix III Statistical Analysis

Notes:

BTV = background threshold value	0.5	Value from baseline monitoring period (December 2015 to September 2017)
mg/L = milligrams per liter		Reported value in current sampling round exceeds the BTV
TDS = total dissolved solids		Statistically significant increasing trend present
UPL = upper prediction limit		Statistically significant decreasing trend present
SU = standard units	*None*	Insufficient evidence to identify a trend.

[1] See Table 1 for relevant BTV information. BTVs were updated in September 2024.

[2] For pH, values presented refer to the Upper Prediction Limit/Lower Prediction Limit, respectively. Values represent

[3] Temporal trends evaluated with Mann-Kendall trend tests ($p<0.05$); tied values (sequential sample concentrations that are equal overtime) can cause misleading trend results.

APPENDIX A

PROUCL DATA UPLOAD TABLE

Well	Sample Date	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride
M-59	12/3/2015	0.5	1	87	1	1300	1	1.3
M-59	3/10/2016	0.48	1	85	1	1400	1	1.3
M-59	5/20/2016	0.49	1	86	1	1400	1	1.4
M-59	8/27/2016	0.5	1	89	1	1400	1	1.4
M-59	9/22/2016	0.5	1	88	1	1300	1	1.4
M-59	2/22/2017	0.48	1	86	1	1200	1	1.3
M-59	4/11/2017	0.49	1	90	1	1400	1	1.3
M-59	4/24/2017	0.52	1	89	1	1300	1	1.4
M-59	5/19/2017	0.5	1	93	1	1400	1	1.4
M-59	5/25/2017	0.5	1	88	1	1300	1	1.4
M-59	6/29/2017	0.49	1	84	1	1400	1	1.5
M-59	7/29/2017	0.53	1	92	1	1300	1	1.5
M-59	9/5/2017	0.51	1	90	1	1300	1	1.4
M-59	12/7/2017	0.49	1	86	1	1400	1	1.4
M-59	5/25/2018	0.49	1	85	1	1400	1	1.4
M-59	10/26/2018	0.48	1	88	1	1400	1	1.4
M-59	4/9/2019	0.5	1	86	1	1200	1	1.4
M-59	10/23/2019	0.48	1	84	1	1400	1	1.3
M-59	5/7/2020	0.5	1	89	1	1200	1	1.8
M-59	10/21/2020	0.48	1	85	1	1300	1	1.4
M-59	1/13/2021							
M-59	4/16/2021	0.49	1	87	1	1300	1	1.4
M-59	10/24/2021	0.49	1	84	1	1300	1	1.4
M-59	11/19/2021							
M-59	5/13/2022	0.5	1	89	1	1200	1	1.4
M-59	8/30/2022							
M-59	10/19/2022	0.48	1	79	1	1200	1	1.4
M-59	4/12/2023	0.51	1	93	1	1400	1	1.4
M-59	11/21/2023	0.53	1	90	1	1200	1	1.3
M-59	4/30/2024	0.51	1	86	1	1700	1	1.4
M-59	7/1/2024					1300	1	
M-60	12/3/2015	0.54	1	88	1	1400	1	1.3
M-60	3/9/2016	0.5	1	86	1	1400	1	1.4
M-60	5/20/2016	0.5	1	89	1	1400	1	1.5
M-60	8/27/2016	0.52	1	90	1	1400	1	1.5
M-60	9/22/2016	0.51	1	88	1	1300	1	1.4
M-60	2/22/2017	0.52	1	91	1	1300	1	1.4
M-60	4/11/2017	0.48	1	90	1	1400	1	1.4
M-60	4/24/2017	0.53	1	86	1	1400	1	1.4
M-60	5/19/2017	0.53	1	92	1	1400	1	1.4
M-60	5/25/2017	0.51	1	86	1	1300	1	1.4
M-60	6/29/2017	0.51	1	84	1	1500	1	1.5
M-60	7/29/2017	0.53	1	89	1	1400	1	1.5
M-60	9/5/2017	0.53	1	90	1	1400	1	1.5
M-60	12/7/2017	0.51	1	86	1	1500	1	1.4

Well	Sample Date	D_Fluoride	Lab_pH	D_Lab_pH	Sulfate	D_Sulfate	TDS	D_TDS
M-59	12/3/2015	1	7.53	1	340	1	2700	1
M-59	3/10/2016	1	7.57	1	350	1	2700	1
M-59	5/20/2016	1			340	1	2700	1
M-59	8/27/2016	1	7.6	1	350	1	2700	1
M-59	9/22/2016	1	7.8	1	340	1	2900	1
M-59	2/22/2017	1	7.8	1	330	1	2800	1
M-59	4/11/2017	1	8.1	1	350	1	2800	1
M-59	4/24/2017	1	7.7	1	350	1	2800	1
M-59	5/19/2017	1	7.8	1	360	1	2700	1
M-59	5/25/2017	1	7.6	1	350	1	2700	1
M-59	6/29/2017	1	7.8	1	370	1	2500	1
M-59	7/29/2017	1	7.6	1	340	1	2800	1
M-59	9/5/2017	1	7.7	1	360	1	2700	1
M-59	12/7/2017	1	7.7	1	350	1	2700	1
M-59	5/25/2018	1	7.5	1	350	1	2700	1
M-59	10/26/2018	1	7.6	1	360	1	2500	1
M-59	4/9/2019	1	7.9	1	330	1	2700	1
M-59	10/23/2019	1	7.5	1	350	1	2800	1
M-59	5/7/2020	1	7.7	1	350	1	2800	1
M-59	10/21/2020	1	7.5	1	340	1	2700	1
M-59	1/13/2021							
M-59	4/16/2021	1	7.8	1	350	1	2800	1
M-59	10/24/2021	1	7.7	1	400	1	2300	1
M-59	11/19/2021				360	1	2600	1
M-59	5/13/2022	1	7.9	1	350	1	2900	1
M-59	8/30/2022		7.6	1				
M-59	10/19/2022	1	7.6	1	350	1	2700	1
M-59	4/12/2023	1	7.8	1	360	1	2800	1
M-59	11/21/2023	1	7.7	1	340	1	2800	1
M-59	4/30/2024	1	7.7	1	430	1	2800	1
M-59	7/1/2024				350	1		
M-60	12/3/2015	1	7.56	1	350	1	2800	1
M-60	3/9/2016	1	7.83	1	350	1	2800	1
M-60	5/20/2016	1			350	1	2800	1
M-60	8/27/2016	1	7.5	1	360	1	2800	1
M-60	9/22/2016	1	7.8	1	350	1	3000	1
M-60	2/22/2017	1	7.8	1	340	1	2800	1
M-60	4/11/2017	1	8	1	370	1	2900	1
M-60	4/24/2017	1	7.8	1	350	1	2700	1
M-60	5/19/2017	1	7.7	1	360	1	2800	1
M-60	5/25/2017	1	7.7	1	350	1	2800	1
M-60	6/29/2017	1	7.8	1	440	1	2700	1
M-60	7/29/2017	1	7.6	1	370	1	2800	1
M-60	9/5/2017	1	7.6	1	360	1	2800	1
M-60	12/7/2017	1	7.6	1	360	1	2900	1

Well	Sample Date	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride
M-60	5/25/2018	0.5	1	83	1	1400	1	1.5
M-60	10/26/2018	0.49	1	88	1	1400	1	1.4
M-60	4/9/2019	0.51	1	84	1	1300	1	1.4
M-60	10/22/2019	0.5	1	85	1	1400	1	1.4
M-60	5/7/2020	0.5	1	88	1	1200	1	1.7
M-60	10/21/2020	0.48	1	83	1	1400	1	1.5
M-60	1/13/2021							
M-60	4/16/2021	0.49	1	85	1	1300	1	1.5
M-60	7/7/2021							
M-60	10/24/2021	0.49	1	85	1	1300	1	1.5
M-60	11/19/2021							
M-60	5/13/2022	0.52	1	89	1	1400	1	1.57
M-60	8/31/2022							
M-60	10/20/2022	0.48	1	80	1	1300	1	1.5
M-60	1/26/2023					1400	1	1.5
M-60	5/10/2023	0.51	1	79	1	1400	1	1.4
M-60	11/20/2023	0.53	1	88	1	1300	1	1.4
M-60	5/28/2024	0.58	1	96	1	1200	1	1.4
M-60	7/1/2024	0.52	1					
M-61	12/3/2015	0.51	1	90	1	1400	1	1.3
M-61	3/10/2016	0.49	1	90	1	1400	1	1.4
M-61	5/20/2016	0.49	1	89	1	1400	1	1.4
M-61	8/27/2016	0.5	1	90	1	1400	1	1.5
M-61	9/22/2016	0.5	1	90	1	1300	1	1.4
M-61	2/22/2017	0.5	1	92	1	1100	1	1.4
M-61	4/11/2017	0.5	1	93	1	1700	1	1.4
M-61	4/24/2017	0.52	1	88	1	1400	1	1.4
M-61	5/19/2017	0.5	1	92	1	1400	1	1.3
M-61	5/25/2017	0.51	1	92	1	1400	1	1.4
M-61	6/29/2017	0.5	1	86	1	1500	1	1.5
M-61	7/29/2017	0.52	1	94	1	1300	1	1.5
M-61	9/5/2017	0.5	1	91	1	1400	1	1.5
M-61	12/7/2017	0.49	1	88	1	1500	1	1.4
M-61	5/25/2018	0.48	1	87	1	1400	1	1.5
M-61	10/26/2018	0.48	1	91	1	1400	1	1.4
M-61	4/9/2019	0.5	1	88	1	1300	1	1.4
M-61	10/22/2019	0.48	1	87	1	1400	1	1.4
M-61	5/7/2020	0.51	1	93	1	1300	1	1.6
M-61	10/21/2020	0.48	1	88	1	1400	1	1.4
M-61	1/13/2021							
M-61	4/16/2021	0.49	1	91	1	1300	1	1.5
M-61	10/24/2021	0.49	1	89	1	1400	1	1.4
M-61	11/19/2021							
M-61	5/13/2022	0.49	1	90	1	1200	1	1.4
M-61	8/31/2022							

Well	Sample Date	D_Fluoride	Lab_pH	D_Lab_pH	Sulfate	D_Sulfate	TDS	D_TDS
M-60	5/25/2018	1	7.5	1	350	1	2800	1
M-60	10/26/2018	1	7.7	1	350	1	2600	1
M-60	4/9/2019	1	7.7	1	350	1	2800	1
M-60	10/22/2019	1	7.6	1	360	1	2800	1
M-60	5/7/2020	1	7.7	1	350	1	2900	1
M-60	10/21/2020	1	7.5	1	340	1	2900	1
M-60	1/13/2021							
M-60	4/16/2021	1	7.8	1	340	1	4200	1
M-60	7/7/2021						2700	1
M-60	10/24/2021	1	7.6	1	450	1	2900	1
M-60	11/19/2021				370	1	2200	1
M-60	5/13/2022	1	8.2	1	360	1	3800	1
M-60	8/31/2022						2900	1
M-60	10/20/2022	1	7.5	1	400	1	2700	1
M-60	1/26/2023	1			380	1		
M-60	5/10/2023	1	7.7	1	370	1	2800	1
M-60	11/20/2023	1	7.6	1	350	1	2900	1
M-60	5/28/2024	1	7.6	1	330	1	2800	1
M-60	7/1/2024							
M-61	12/3/2015	1	7.22	1	350	1	2800	1
M-61	3/10/2016	1	7.59	1	340	1	2800	1
M-61	5/20/2016	1			350	1	2800	1
M-61	8/27/2016	1	7.5	1	360	1	2900	1
M-61	9/22/2016	1	7.9	1	350	1	3000	1
M-61	2/22/2017	1	7.8	1	340	1	2700	1
M-61	4/11/2017	1	8	1	420	1	3000	1
M-61	4/24/2017	1	7.7	1	360	1	2700	1
M-61	5/19/2017	1	7.8	1	370	1	2800	1
M-61	5/25/2017	1	7.7	1	370	1	2800	1
M-61	6/29/2017	1	7.8	1	380	1	2700	1
M-61	7/29/2017	1	7.6	1	360	1	2900	1
M-61	9/5/2017	1	7.6	1	360	1	2800	1
M-61	12/7/2017	1	7.6	1	360	1	2900	1
M-61	5/25/2018	1	7.5	1	390	1	2800	1
M-61	10/26/2018	1	7.5	1	360	1	2600	1
M-61	4/9/2019	1	7.7	1	340	1	2800	1
M-61	10/22/2019	1	7.8	1	350	1	2700	1
M-61	5/7/2020	1	7.7	1	350	1	3000	1
M-61	10/21/2020	1	7.5	1	350	1	2700	1
M-61	1/13/2021							
M-61	4/16/2021	1	7.8	1	340	1	2900	1
M-61	10/24/2021	1	7.6	1	450	1	3200	1
M-61	11/19/2021				370	1	2300	1
M-61	5/13/2022	1	7.6	1	360	1	3800	1
M-61	8/31/2022						2900	1

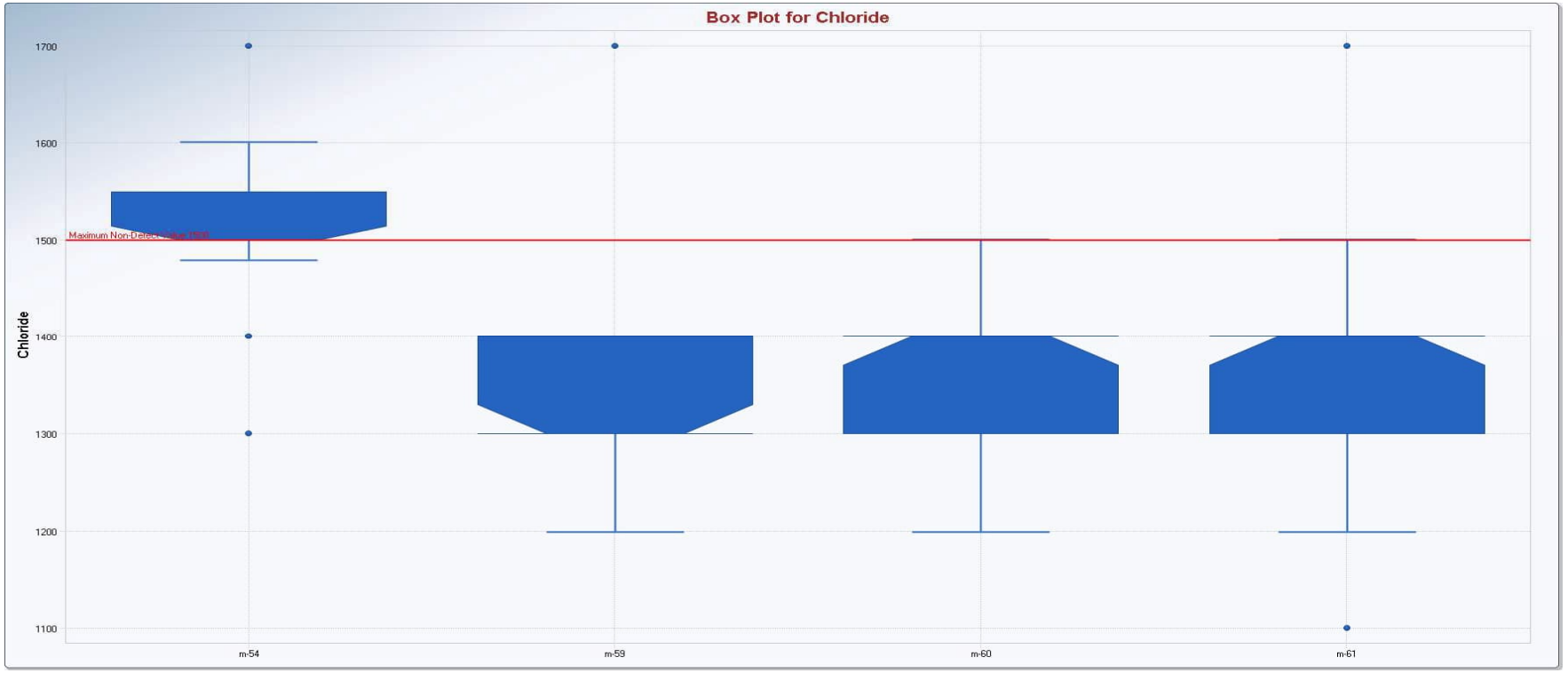
Well	Sample Date	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride
M-61	10/19/2022	0.49	1	86	1	1300	1	1.5
M-61	4/12/2023	0.51	1	97	1	1400	1	1.4
M-61	11/20/2023	0.53	1	93	1	1300	1	1.3
M-61	4/30/2024	0.51	1	90	1	1400	1	1.4
M-54	12/3/2015	0.52	1	100	1	1500	1	1.2
M-54	3/10/2016	0.53	1	100	1	1600	1	1.3
M-54	5/20/2016	0.51	1	100	1	1500	1	1.4
M-54	8/27/2016	0.53	1	110	1	1600	1	1.4
M-54	9/22/2016	0.52	1	99	1	1400	1	1.3
M-54	2/21/2017	0.52	1	100	1	1300	1	1.3
M-54	4/11/2017	0.51	1	100	1	1500	1	1.3
M-54	4/24/2017	0.53	1	95	1	1500	1	1.3
M-54	5/19/2017	0.5	1	99	1	1600	1	1.3
M-54	5/25/2017	0.52	1	100	1	1500	1	1.4
M-54	6/29/2017	0.51	1	97	1	1600	1	1.4
M-54	7/29/2017	0.56	1	100	1	1500	1	1.4
M-54	9/5/2017	0.55	1	100	1	1500	1	1.4
M-54	12/7/2017	0.51	1	97	1	1600	1	1.4
M-54	5/25/2018	0.5	1	96	1	1500	1	1.4
M-54	10/26/2018	0.5	1	100	1	1500	1	1.4
M-54	4/9/2019	0.53	1	98	1	1400	1	1.3
M-54	10/22/2019	0.49	1	95	1	1500	1	1.3
M-54	5/7/2020	0.51	1	98	1	1400	1	1.8
M-54	10/21/2020	0.48	1	92	1	1500	1	1.3
M-54	4/16/2021	0.52	1	100	1	1700	1	1.4
M-54	10/24/2021	0.5	1	96	1	1500	1	1.4
M-54	11/19/2021							
M-54	5/13/2022	0.5	1	99	1	1480	1	1.5
M-54	8/31/2022							
M-54	10/20/2022	0.5	1	93	1	1500	1	1.4
M-54	1/26/2023					1600	1	1.4
M-54	4/13/2023	0.53	1	100	1	1500	1	1.4
M-54	11/21/2023	0.55	1	100	1	1400	1	1.3
M-54	4/30/2024	0.58	1	110		1500		1.3

Well	Sample Date	D_Fluoride	Lab_pH	D_Lab_pH	Sulfate	D_Sulfate	TDS	D_TDS
M-61	10/19/2022	1	7.7	1	360	1	2800	1
M-61	4/12/2023	1	7.8	1	350	1	2900	1
M-61	11/20/2023	1	7.7	1	350	1	2900	1
M-61	4/30/2024	1	7.7	1	330	1	2700	1
M-54	12/3/2015	1	7.34	1	380	1	3000	1
M-54	3/10/2016	1	7.56	1	360	1	2900	1
M-54	5/20/2016	1			350	1	3000	1
M-54	8/27/2016	1	7.5	1	370	1	3100	1
M-54	9/22/2016	1	7.7	1	350	1	3200	1
M-54	2/21/2017	1	7.7	1	350	1	2900	1
M-54	4/11/2017	1	7.7	1	360	1	3100	1
M-54	4/24/2017	1	7.6	1	370	1	3000	1
M-54	5/19/2017	1	7.8	1	380	1	3200	1
M-54	5/25/2017	1	7.7	1	370	1	3200	1
M-54	6/29/2017	1	7.6	1	380	1	2900	1
M-54	7/29/2017	1	7.4	1	350	1	3100	1
M-54	9/5/2017	1	7.5	1	370	1	3100	1
M-54	12/7/2017	1	7.6	1	360	1	3000	1
M-54	5/25/2018	1	7.4	1	350	1	3000	1
M-54	10/26/2018	1	7.5	1	360	1	2900	1
M-54	4/9/2019	1	7.7	1	340	1	3100	1
M-54	10/22/2019	1	7.4	1	350	1	2900	1
M-54	5/7/2020	1	7.6	1	360	1	3100	1
M-54	10/21/2020	1	7.3	1	350	1	2900	1
M-54	4/16/2021	1	7.6	1	420	1	3300	1
M-54	10/24/2021	1	7.7	1	400	1	2700	1
M-54	11/19/2021				370	1	2300	1
M-54	5/13/2022	1	8.2	1	360	1	3100	1
M-54	8/31/2022		7.6	1			3100	1
M-54	10/20/2022	1	7.5	1	420	1	3100	1
M-54	1/26/2023	1			390	1		
M-54	4/13/2023	1	7.8	1	370	1	3100	1
M-54	11/21/2023	1	7.6	1	350	1	3100	1
M-54	4/30/2024		7.6		340		2900	

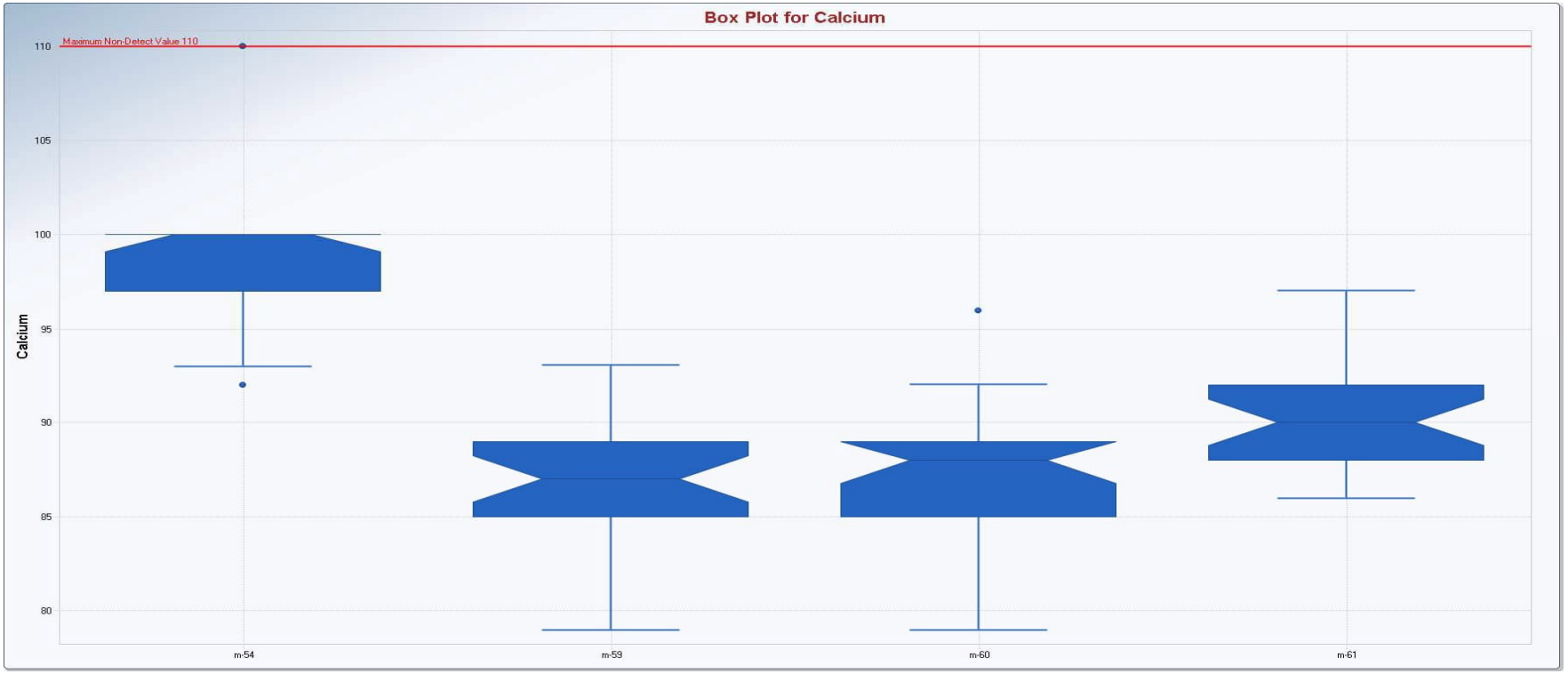
APPENDIX B

PROUCL EDA OUTPUT FILES

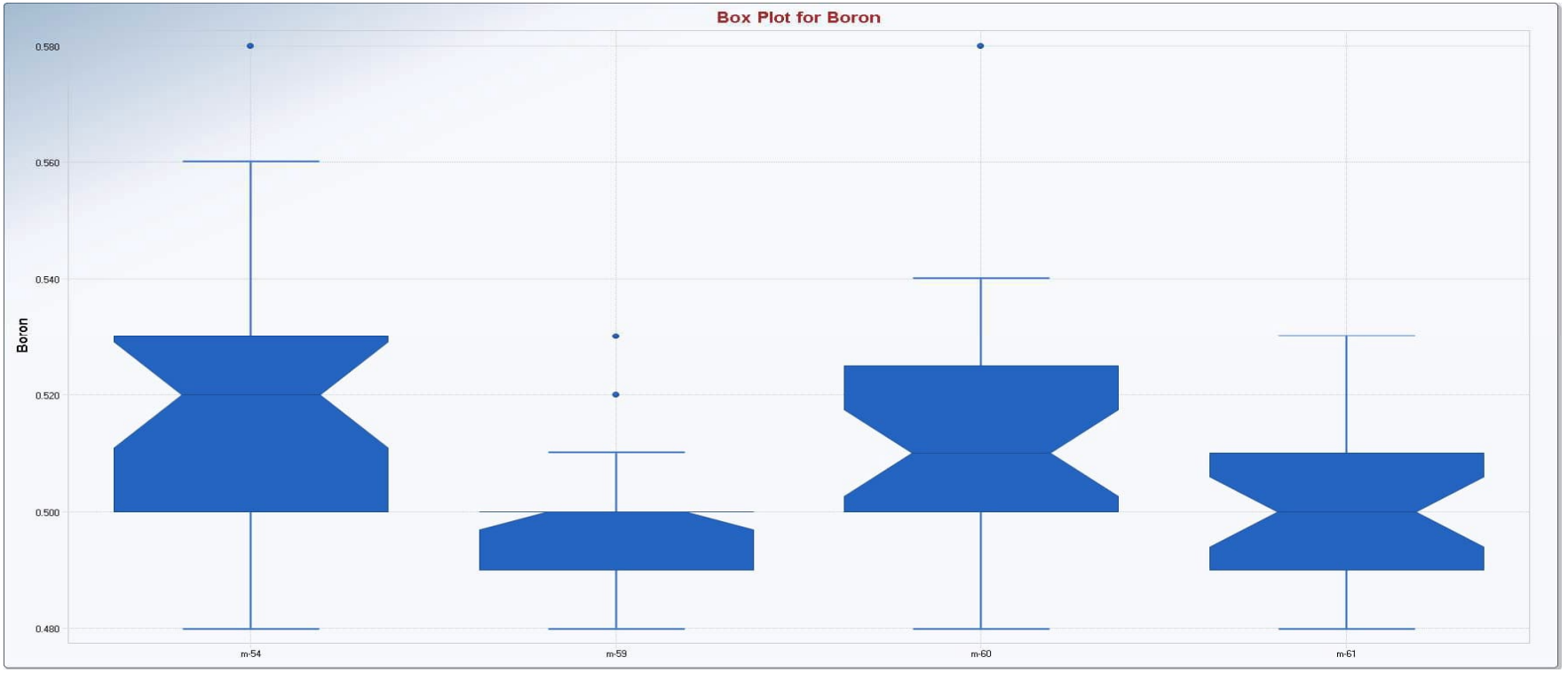
Appendix B
Box and Whisker Plots



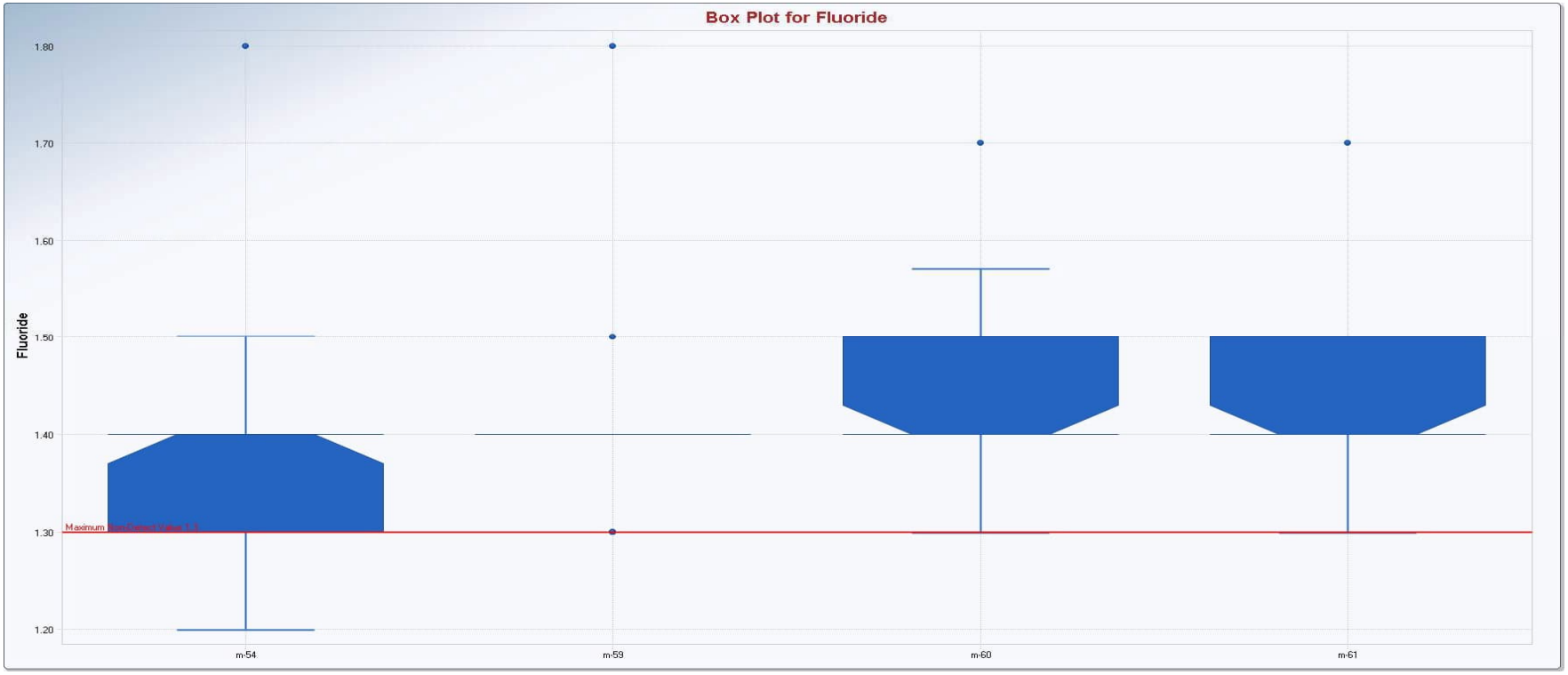
Appendix B
Box and Whisker Plots



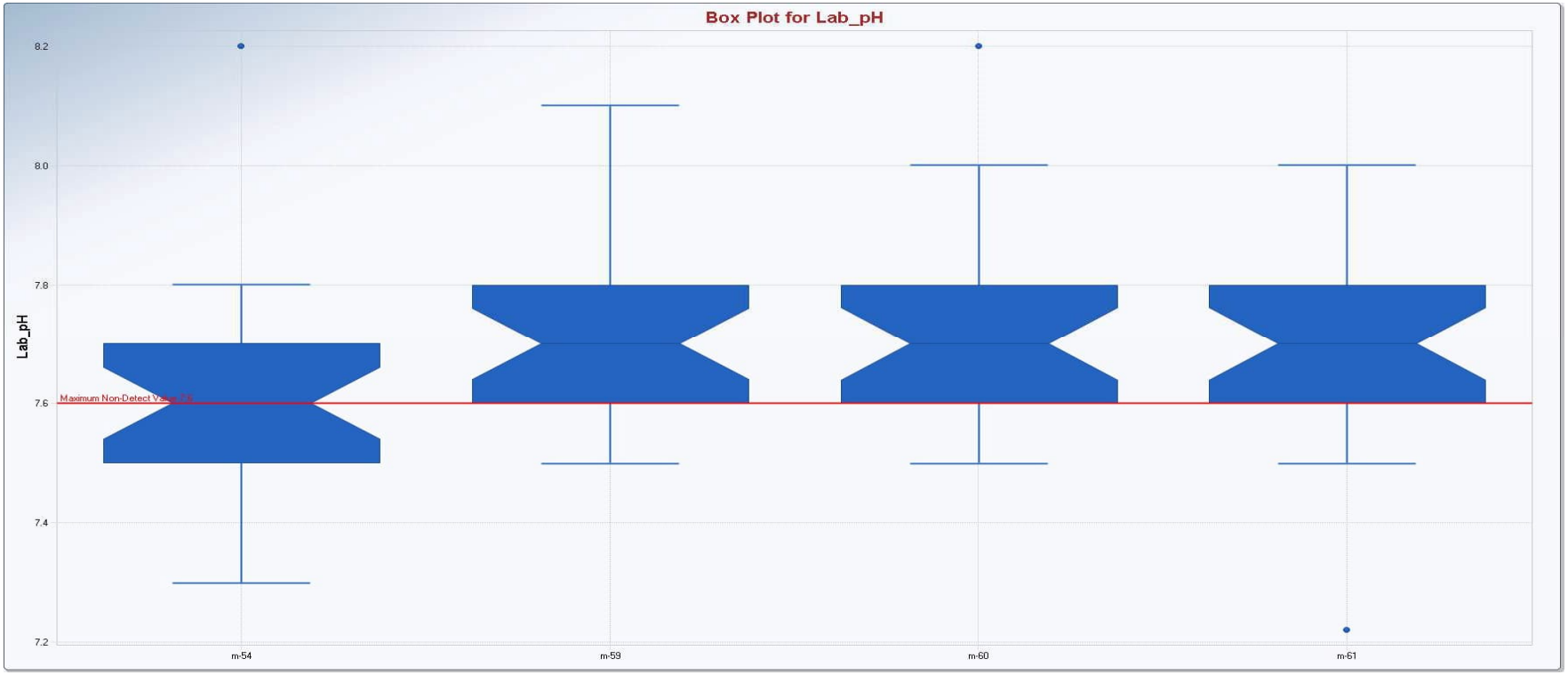
Appendix B
Box and Whisker Plots



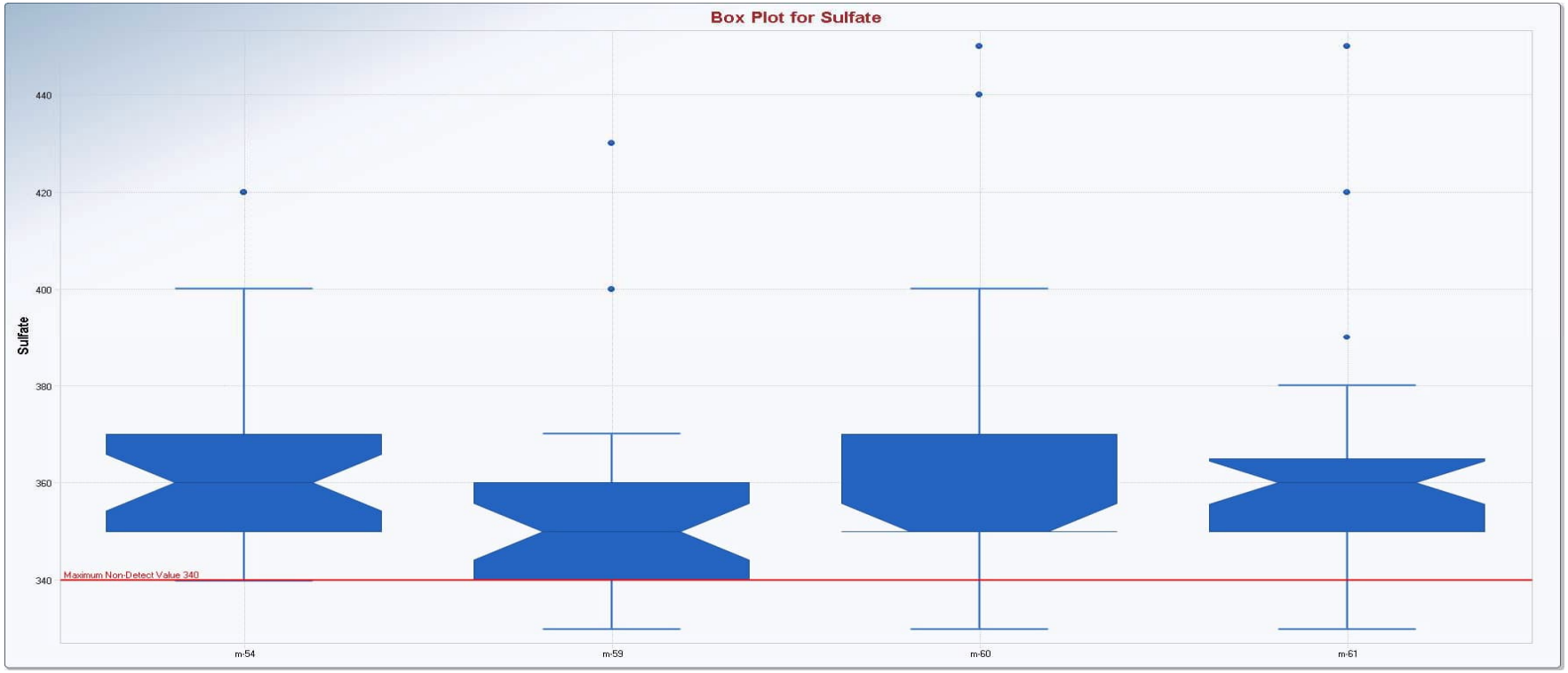
Appendix B
Box and Whisker Plots



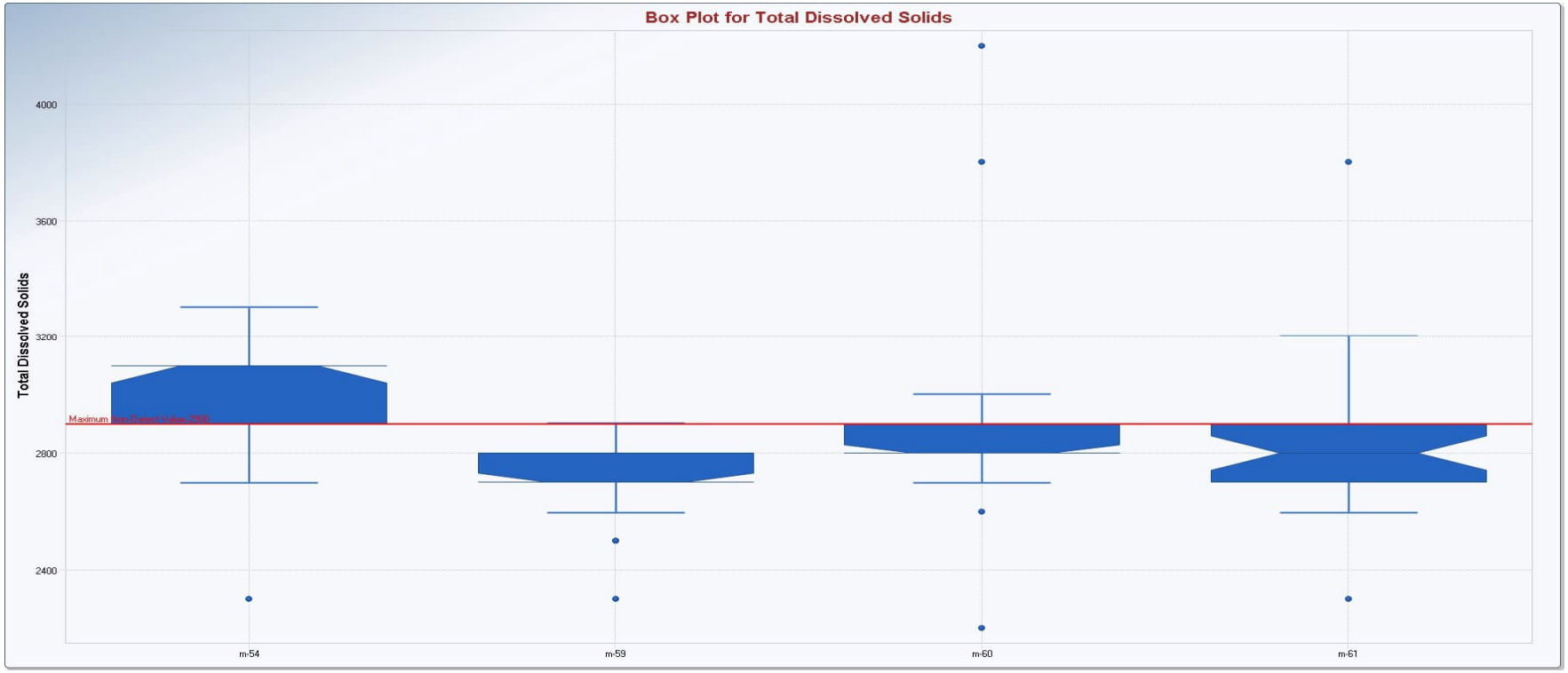
Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Goodness of Fit Statistics

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.19/18/2024 2:16:51 PM
From File	BAM_2024Q2_proUCL_UPLOAD.xls
Full Precision	OFF
Confidence Coefficient	0.95

Boron (m-59)

Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	4
Number of Distinct Observations	6
Minimum	0.48
Maximum	0.53
Mean of Raw Data	0.497
Standard Deviation of Raw Data	0.0144
Khat	1261
Theta hat	3.9421E-4
Kstar	1121
Theta star	4.4348E-4
Mean of Log Transformed Data	-0.699
Standard Deviation of Log Transformed Data	0.0286

Normal GOF Test Results	
Correlation Coefficient R	0.947
Shapiro Wilk Test Statistic	0.887
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.00635
Lilliefors Test Statistic	0.196
Lilliefors Critical (0.05) Value	0.167

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.949
A-D Test Statistic	0.997
A-D Critical (0.05) Value	0.744

Appendix B
Goodness of Fit Statistics

K-S Test Statistic	0.19
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.95
Shapiro Wilk Test Statistic	0.891
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.00824
Lilliefors Test Statistic	0.19
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Boron (m-60)	
Raw Statistics	
Number of Valid Observations	28
Number of Missing Observations	5
Number of Distinct Observations	8
Minimum	0.48
Maximum	0.58
Mean of Raw Data	0.511
Standard Deviation of Raw Data	0.0216
Khat	597.3
Theta hat	8.5623E-4
Kstar	533.3
Theta star	9.5893E-4
Mean of Log Transformed Data	-0.671
Standard Deviation of Log Transformed Data	0.0415
Normal GOF Test Results	
Correlation Coefficient R	0.953
Shapiro Wilk Test Statistic	0.919
Shapiro Wilk Critical (0.05) Value	0.924

Appendix B
Goodness of Fit Statistics

Approximate Shapiro Wilk P Value	0.035
Lilliefors Test Statistic	0.134
Lilliefors Critical (0.05) Value	0.164
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.958
A-D Test Statistic	0.525
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.129
K-S Critical(0.05) Value	0.165
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.961
Shapiro Wilk Test Statistic	0.93
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	0.0706
Lilliefors Test Statistic	0.126
Lilliefors Critical (0.05) Value	0.164
Data appear Lognormal at (0.05) Significance Level	
Boron (m-61)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	6
Minimum	0.48
Maximum	0.53
Mean of Raw Data	0.499
Standard Deviation of Raw Data	0.0131
Khat	1514
Theta hat	3.2948E-4
Kstar	1346
Theta star	3.7066E-4
Mean of Log Transformed Data	-0.696
Standard Deviation of Log Transformed Data	0.0261

Appendix B
Goodness of Fit Statistics

Normal GOF Test Results	
Correlation Coefficient R	0.968
Shapiro Wilk Test Statistic	0.93
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.0749
Lilliefors Test Statistic	0.17
Lilliefors Critical (0.05) Value	0.167
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.969
A-D Test Statistic	0.754
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.166
K-S Critical(0.05) Value	0.168
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.969
Shapiro Wilk Test Statistic	0.932
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.0832
Lilliefors Test Statistic	0.165
Lilliefors Critical (0.05) Value	0.167
Data appear Lognormal at (0.05) Significance Level	
Calcium (m-59)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	4
Number of Distinct Observations	10
Minimum	79
Maximum	93
Mean of Raw Data	87.33
Standard Deviation of Raw Data	3.088

Appendix B
Goodness of Fit Statistics

Khat	823.7
Theta hat	0.106
Kstar	732.2
Theta star	0.119
Mean of Log Transformed Data	4.469
Standard Deviation of Log Transformed Data	0.0356
Normal GOF Test Results	
Correlation Coefficient R	0.976
Shapiro Wilk Test Statistic	0.959
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.378
Lilliefors Test Statistic	0.111
Lilliefors Critical (0.05) Value	0.167
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.976
A-D Test Statistic	0.374
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.11
K-S Critical(0.05) Value	0.168
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.973
Shapiro Wilk Test Statistic	0.955
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.305
Lilliefors Test Statistic	0.105
Lilliefors Critical (0.05) Value	0.167
Data appear Lognormal at (0.05) Significance Level	
Calcium (m-60)	
Raw Statistics	
Number of Valid Observations	27

Appendix B
Goodness of Fit Statistics

Number of Missing Observations	6
Number of Distinct Observations	12
Minimum	79
Maximum	96
Mean of Raw Data	86.96
Standard Deviation of Raw Data	3.643
Khat	590.4
Theta hat	0.147
Kstar	524.8
Theta star	0.166
Mean of Log Transformed Data	4.465
Standard Deviation of Log Transformed Data	0.042
Normal GOF Test Results	
Correlation Coefficient R	0.983
Shapiro Wilk Test Statistic	0.976
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.766
Lilliefors Test Statistic	0.131
Lilliefors Critical (0.05) Value	0.167
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.984
A-D Test Statistic	0.331
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.137
K-S Critical(0.05) Value	0.168
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.983
Shapiro Wilk Test Statistic	0.975
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.738
Lilliefors Test Statistic	0.137
Lilliefors Critical (0.05) Value	0.167

Appendix B
Goodness of Fit Statistics

Data appear Lognormal at (0.05) Significance Level	
Calcium (m-61)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	10
Minimum	86
Maximum	97
Mean of Raw Data	90.19
Standard Deviation of Raw Data	2.588
Khat	1271
Theta hat	0.071
Kstar	1130
Theta star	0.0798
Mean of Log Transformed Data	4.501
Standard Deviation of Log Transformed Data	0.0285
Normal GOF Test Results	
Correlation Coefficient R	0.981
Shapiro Wilk Test Statistic	0.964
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.474
Lilliefors Test Statistic	0.121
Lilliefors Critical (0.05) Value	0.167
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.983
A-D Test Statistic	0.316
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.12
K-S Critical(0.05) Value	0.168
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.983
Shapiro Wilk Test Statistic	0.967
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.55
Lilliefors Test Statistic	0.116
Lilliefors Critical (0.05) Value	0.167
Data appear Lognormal at (0.05) Significance Level	
Chloride (m-59)	
Raw Statistics	
Number of Valid Observations	28
Number of Missing Observations	3
Number of Distinct Observations	4
Minimum	1200
Maximum	1700
Mean of Raw Data	1332
Standard Deviation of Raw Data	105.6
Khat	173.7
Theta hat	7.671
Kstar	155.1
Theta star	8.59
Mean of Log Transformed Data	7.192
Standard Deviation of Log Transformed Data	0.0765
Normal GOF Test Results	
Correlation Coefficient R	0.887
Shapiro Wilk Test Statistic	0.803
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	6.4009E-5
Lilliefors Test Statistic	0.225
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.894
A-D Test Statistic	1.721
A-D Critical (0.05) Value	0.743

Appendix B
Goodness of Fit Statistics

K-S Test Statistic	0.211
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.903
Shapiro Wilk Test Statistic	0.827
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	2.1642E-4
Lilliefors Test Statistic	0.21
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Chloride (m-60)	
Raw Statistics	
Number of Valid Observations	28
Number of Missing Observations	5
Number of Distinct Observations	4
Minimum	1200
Maximum	1500
Mean of Raw Data	1364
Standard Deviation of Raw Data	73.1
Khat	353.5
Theta hat	3.86
Kstar	315.6
Theta star	4.322
Mean of Log Transformed Data	7.217
Standard Deviation of Log Transformed Data	0.0545
Normal GOF Test Results	
Correlation Coefficient R	0.902
Shapiro Wilk Test Statistic	0.818
Shapiro Wilk Critical (0.05) Value	0.924

Appendix B
Goodness of Fit Statistics

Approximate Shapiro Wilk P Value	1.3532E-4
Lilliefors Test Statistic	0.33
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.9
A-D Test Statistic	2.708
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.336
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.899
Shapiro Wilk Test Statistic	0.812
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	1.0148E-4
Lilliefors Test Statistic	0.334
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Chloride (m-61)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	6
Minimum	1100
Maximum	1700
Mean of Raw Data	1374
Standard Deviation of Raw Data	105.9
Khat	174.9
Theta hat	7.854

Appendix B
Goodness of Fit Statistics

Kstar	155.5
Theta star	8.835
Mean of Log Transformed Data	7.223
Standard Deviation of Log Transformed Data	0.0772
Normal GOF Test Results	
Correlation Coefficient R	0.894
Shapiro Wilk Test Statistic	0.832
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	3.5243E-4
Lilliefors Test Statistic	0.292
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.898
A-D Test Statistic	2.177
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.281
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.897
Shapiro Wilk Test Statistic	0.836
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	4.3567E-4
Lilliefors Test Statistic	0.279
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-59)	

Appendix B
Goodness of Fit Statistics

Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	4
Number of Distinct Observations	4
Minimum	1.3
Maximum	1.8
Mean of Raw Data	1.4
Standard Deviation of Raw Data	0.0961
Khat	244.1
Theta hat	0.00574
Kstar	217
Theta star	0.00645
Mean of Log Transformed Data	0.334
Standard Deviation of Log Transformed Data	0.0637
Normal GOF Test Results	
Correlation Coefficient R	0.767
Shapiro Wilk Test Statistic	0.617
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	4.1299E-8
Lilliefors Test Statistic	0.389
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.781
A-D Test Statistic	3.627
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.38
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.792
Shapiro Wilk Test Statistic	0.654
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	1.6020E-7

Appendix B
Goodness of Fit Statistics

Lilliefors Test Statistic	0.376
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-60)	
Raw Statistics	
Number of Valid Observations	28
Number of Missing Observations	5
Number of Distinct Observations	5
Minimum	1.3
Maximum	1.7
Mean of Raw Data	1.453
Standard Deviation of Raw Data	0.0774
Khat	376.3
Theta hat	0.00386
Kstar	336
Theta star	0.00432
Mean of Log Transformed Data	0.372
Standard Deviation of Log Transformed Data	0.0521
Normal GOF Test Results	
Correlation Coefficient R	0.884
Shapiro Wilk Test Statistic	0.804
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	6.9608E-5
Lilliefors Test Statistic	0.287
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.891
A-D Test Statistic	2.519
A-D Critical (0.05) Value	0.743

Appendix B
Goodness of Fit Statistics

K-S Test Statistic	0.291
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.89
Shapiro Wilk Test Statistic	0.816
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	1.2092E-4
Lilliefors Test Statistic	0.288
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-61)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	4
Minimum	1.3
Maximum	1.7
Mean of Raw Data	1.426
Standard Deviation of Raw Data	0.0813
Khat	332.3
Theta hat	0.00429
Kstar	295.4
Theta star	0.00483
Mean of Log Transformed Data	0.353
Standard Deviation of Log Transformed Data	0.0554
Normal GOF Test Results	
Correlation Coefficient R	0.871
Shapiro Wilk Test Statistic	0.78
Shapiro Wilk Critical (0.05) Value	0.923

Appendix B
Goodness of Fit Statistics

Approximate Shapiro Wilk P Value	2.8795E-5
Lilliefors Test Statistic	0.329
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.879
A-D Test Statistic	2.578
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.327
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.881
Shapiro Wilk Test Statistic	0.795
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	5.9980E-5
Lilliefors Test Statistic	0.323
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Lab_pH (m-59)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	4
Number of Distinct Observations	8
Minimum	7.5
Maximum	8.1
Mean of Raw Data	7.696
Standard Deviation of Raw Data	0.142
Khat	3070
Theta hat	0.00251

Appendix B
Goodness of Fit Statistics

Kstar	2729
Theta star	0.00282
Mean of Log Transformed Data	2.041
Standard Deviation of Log Transformed Data	0.0184
Normal GOF Test Results	
Correlation Coefficient R	0.96
Shapiro Wilk Test Statistic	0.923
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.0509
Lilliefors Test Statistic	0.158
Lilliefors Critical (0.05) Value	0.167
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.962
A-D Test Statistic	0.708
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.168
K-S Critical(0.05) Value	0.168
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.962
Shapiro Wilk Test Statistic	0.927
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.0624
Lilliefors Test Statistic	0.158
Lilliefors Critical (0.05) Value	0.167
Data appear Lognormal at (0.05) Significance Level	
Lab_pH (m-60)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	7
Number of Distinct Observations	8

Appendix B
Goodness of Fit Statistics

Minimum	7.5
Maximum	8.2
Mean of Raw Data	7.692
Standard Deviation of Raw Data	0.162
Khat	2389
Theta hat	0.00322
Kstar	2113
Theta star	0.00364
Mean of Log Transformed Data	2.04
Standard Deviation of Log Transformed Data	0.0208
Normal GOF Test Results	
Correlation Coefficient R	0.93
Shapiro Wilk Test Statistic	0.871
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.00331
Lilliefors Test Statistic	0.177
Lilliefors Critical (0.05) Value	0.17
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.933
A-D Test Statistic	0.961
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.185
K-S Critical(0.05) Value	0.171
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.934
Shapiro Wilk Test Statistic	0.878
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.00484
Lilliefors Test Statistic	0.177
Lilliefors Critical (0.05) Value	0.17
Data not Lognormal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Lab_pH (m-61)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	4
Number of Distinct Observations	8
Minimum	7.22
Maximum	8
Mean of Raw Data	7.67
Standard Deviation of Raw Data	0.157
Khat	2453
Theta hat	0.00313
Kstar	2170
Theta star	0.00353
Mean of Log Transformed Data	2.037
Standard Deviation of Log Transformed Data	0.0206
Normal GOF Test Results	
Correlation Coefficient R	0.961
Shapiro Wilk Test Statistic	0.939
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.141
Lilliefors Test Statistic	0.154
Lilliefors Critical (0.05) Value	0.17
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.962
A-D Test Statistic	0.655
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.157
K-S Critical(0.05) Value	0.171
Data appear Gamma Distributed at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Lognormal GOF Test Results	
Correlation Coefficient R	0.958
Shapiro Wilk Test Statistic	0.935
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.111
Lilliefors Test Statistic	0.157
Lilliefors Critical (0.05) Value	0.17
Data appear Lognormal at (0.05) Significance Level	
Sulfate (m-59)	
Raw Statistics	
Number of Valid Observations	29
Number of Missing Observations	2
Number of Distinct Observations	7
Minimum	330
Maximum	430
Mean of Raw Data	353.4
Standard Deviation of Raw Data	19.69
Khat	361.6
Theta hat	0.977
Kstar	324.2
Theta star	1.09
Mean of Log Transformed Data	5.866
Standard Deviation of Log Transformed Data	0.0525
Normal GOF Test Results	
Correlation Coefficient R	0.826
Shapiro Wilk Test Statistic	0.707
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	5.4658E-7
Lilliefors Test Statistic	0.294
Lilliefors Critical (0.05) Value	0.161
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.839

Appendix B
Goodness of Fit Statistics

A-D Test Statistic	2.702
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.291
K-S Critical(0.05) Value	0.162
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.846
Shapiro Wilk Test Statistic	0.739
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	2.2000E-6
Lilliefors Test Statistic	0.288
Lilliefors Critical (0.05) Value	0.161
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Sulfate (m-60)	
Raw Statistics	
Number of Valid Observations	29
Number of Missing Observations	4
Number of Distinct Observations	9
Minimum	330
Maximum	450
Mean of Raw Data	362.4
Standard Deviation of Raw Data	26.68
Khat	209.3
Theta hat	1.731
Kstar	187.7
Theta star	1.931
Mean of Log Transformed Data	5.89
Standard Deviation of Log Transformed Data	0.0688
Normal GOF Test Results	
Correlation Coefficient R	0.844

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Test Statistic	0.727
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	1.2714E-6
Lilliefors Test Statistic	0.26
Lilliefors Critical (0.05) Value	0.161
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.859
A-D Test Statistic	2.638
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.253
K-S Critical(0.05) Value	0.162
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.864
Shapiro Wilk Test Statistic	0.76
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	5.8467E-6
Lilliefors Test Statistic	0.249
Lilliefors Critical (0.05) Value	0.161
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Sulfate (m-61)	
Raw Statistics	
Number of Valid Observations	28
Number of Missing Observations	2
Number of Distinct Observations	9
Minimum	330
Maximum	450
Mean of Raw Data	361.4
Standard Deviation of Raw Data	24.75

Appendix B
Goodness of Fit Statistics

Khat	240.3
Theta hat	1.504
Kstar	214.6
Theta star	1.684
Mean of Log Transformed Data	5.888
Standard Deviation of Log Transformed Data	0.0644
Normal GOF Test Results	
Correlation Coefficient R	0.865
Shapiro Wilk Test Statistic	0.768
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	1.2212E-5
Lilliefors Test Statistic	0.273
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.88
A-D Test Statistic	1.967
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.266
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.886
Shapiro Wilk Test Statistic	0.802
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	6.2189E-5
Lilliefors Test Statistic	0.262
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	

Appendix B
Goodness of Fit Statistics

Total Dissolved Solids (m-59)	
Raw Statistics	
Number of Valid Observations	28
Number of Missing Observations	3
Number of Distinct Observations	6
Minimum	2300
Maximum	2900
Mean of Raw Data	2718
Standard Deviation of Raw Data	124.9
Khat	467
Theta hat	5.819
Kstar	417
Theta star	6.517
Mean of Log Transformed Data	7.907
Standard Deviation of Log Transformed Data	0.0478
Normal GOF Test Results	
Correlation Coefficient R	0.893
Shapiro Wilk Test Statistic	0.813
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	1.0734E-4
Lilliefors Test Statistic	0.3
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.889
A-D Test Statistic	2.131
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.307
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.88
Shapiro Wilk Test Statistic	0.793

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	3.9577E-5
Lilliefors Test Statistic	0.311
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Total Dissolved Solids (m-60)	
Raw Statistics	
Number of Valid Observations	30
Number of Missing Observations	3
Number of Distinct Observations	8
Minimum	2200
Maximum	4200
Mean of Raw Data	2870
Standard Deviation of Raw Data	340.5
Khat	85.37
Theta hat	33.62
Kstar	76.86
Theta star	37.34
Mean of Log Transformed Data	7.956
Standard Deviation of Log Transformed Data	0.107
Normal GOF Test Results	
Correlation Coefficient R	0.759
Shapiro Wilk Test Statistic	0.614
Shapiro Wilk Critical (0.05) Value	0.927
Approximate Shapiro Wilk P Value	7.2485E-9
Lilliefors Test Statistic	0.365
Lilliefors Critical (0.05) Value	0.159
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.78

Appendix B
Goodness of Fit Statistics

A-D Test Statistic	4.435
A-D Critical (0.05) Value	0.745
K-S Test Statistic	0.347
K-S Critical(0.05) Value	0.16
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.792
Shapiro Wilk Test Statistic	0.669
Shapiro Wilk Critical (0.05) Value	0.927
Approximate Shapiro Wilk P Value	6.6510E-8
Lilliefors Test Statistic	0.339
Lilliefors Critical (0.05) Value	0.159
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Total Dissolved Solids (m-61)	
Raw Statistics	
Number of Valid Observations	29
Number of Missing Observations	1
Number of Distinct Observations	8
Minimum	2300
Maximum	3800
Mean of Raw Data	2848
Standard Deviation of Raw Data	241.5
Khat	155.7
Theta hat	18.29
Kstar	139.6
Theta star	20.4
Mean of Log Transformed Data	7.951
Standard Deviation of Log Transformed Data	0.0803
Normal GOF Test Results	
Correlation Coefficient R	0.861

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Test Statistic	0.783
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	1.7814E-5
Lilliefors Test Statistic	0.243
Lilliefors Critical (0.05) Value	0.161
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.874
A-D Test Statistic	1.849
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.228
K-S Critical(0.05) Value	0.162
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.885
Shapiro Wilk Test Statistic	0.826
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	1.5291E-4
Lilliefors Test Statistic	0.223
Lilliefors Critical (0.05) Value	0.161
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	

Appendix B
Outlier Statistics

	Outlier Tests for Selected Uncensored Variables
User Selected Options	
Date/Time of Computation	ProUCL 5.19/23/2024 9:09:44 PM
From File	BAM_2024Q2_proUCL_UPLOAD.xls
Full Precision	OFF

Rosner's Outlier Test for Boron (m-59)

Mean	**0.497**
Standard Deviation	**0.0144**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.497	0.0141	0.53	12	2.339	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Boron (m-60)

Mean	**0.511**
Standard Deviation	**0.0216**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.511	0.0212	0.58	27	3.24	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 0.58

For 1% Significance Level, there is 1 Potential Outlier

Appendix B
Outlier Statistics

Potential outliers is: 0.58

Rosner's Outlier Test for Boron (m-61)

Mean	**0.499**
Standard Deviation	**0.0131**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.499	0.0129	0.53	26	2.419	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Calcium (m-59)

Mean	**87.33**
Standard Deviation	**3.088**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	87.33	3.031	79	24	2.75	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Calcium (m-60)

Appendix B
Outlier Statistics

Mean	**86.96**
Standard Deviation	**3.643**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	86.96	3.574	96	27	2.528	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Calcium (m-61)

Mean	**90.19**
Standard Deviation	**2.588**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	90.19	2.539	97	25	2.684	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Chloride (m-59)

Mean	**1332**
Standard Deviation	**105.6**
Number of data	**28**
Number of suspected outliers	**1**

Potential	Obs.	Test	Critical	Critical

Appendix B
Outlier Statistics

#	Mean	sd	outlier	Number	value	value (5%)	value (1%)
1	1332	103.7	1700	27	3.548	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1700

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1700

Rosner's Outlier Test for Chloride (m-60)

Mean	**1364**
Standard Deviation	**73.1**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1364	71.78	1200	19	2.289	2.88	3.2

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Chloride (m-61)

Mean	**1374**
Standard Deviation	**105.9**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1374	104	1700	7	3.135	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier

Appendix B
Outlier Statistics

Potential outliers is: 1700

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Fluoride (m-59)

Mean	**1.4**
Standard Deviation	**0.0961**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1.4	0.0943	1.8	19	4.243	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1.8

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1.8

Rosner's Outlier Test for Fluoride (m-60)

Mean	**1.453**
Standard Deviation	**0.0774**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1.453	0.076	1.7	19	3.257	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1.7

For 1% Significance Level, there is 1 Potential Outlier

Appendix B
Outlier Statistics

Potential outliers is: 1.7

Rosner's Outlier Test for Fluoride (m-61)

Mean	**1.426**
Standard Deviation	**0.0813**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1.426	0.0798	1.7	19	3.435	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1.7

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1.7

Rosner's Outlier Test for Lab_pH (m-59)

Mean	**7.696**
Standard Deviation	**0.142**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	7.696	0.14	8.1	6	2.894	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 8.1

For 1% Significance Level, there is no Potential Outlier

Appendix B
Outlier Statistics

Rosner's Outlier Test for Lab_pH (m-60)

Mean	**7.692**
Standard Deviation	**0.162**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	7.692	0.159	8.2	22	3.202	2.84	3.16

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 8.2

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 8.2

Rosner's Outlier Test for Lab_pH (m-61)

Mean	**7.67**
Standard Deviation	**0.157**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	7.67	0.154	7.22	1	2.915	2.84	3.16

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 7.22

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Sulfate (m-59)

Appendix B
Outlier Statistics

Mean	**353.4**
Standard Deviation	**19.69**
Number of data	**29**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	353.4	19.35	430	28	3.957	2.89	3.22

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 430

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 430

Rosner's Outlier Test for Sulfate (m-60)

Mean	**362.4**
Standard Deviation	**26.68**
Number of data	**29**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	362.4	26.22	450	22	3.341	2.89	3.22

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 450

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 450

Rosner's Outlier Test for Sulfate (m-61)

Mean	**361.4**
Standard Deviation	**24.75**

Appendix B
Outlier Statistics

Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	361.4	24.31	450	22	3.644	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 450

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 450

Rosner's Outlier Test for Total Dissolved Solids (m-59)

Mean	**2718**
Standard Deviation	**124.9**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	2718	122.6	2300	22	3.407	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 2300

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 2300

Rosner's Outlier Test for Total Dissolved Solids (m-60)

Mean	**2870**
Standard Deviation	**340.5**
Number of data	**30**
Number of suspected outliers	**1**

Appendix B
Outlier Statistics

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	2870	334.8	4200	21	3.972	2.91	3.24

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 4200

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 4200

Rosner's Outlier Test for Total Dissolved Solids (m-61)

Mean	**2848**
Standard Deviation	**241.5**
Number of data	**29**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	2848	237.3	3800	24	4.011	2.89	3.22

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 3800

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 3800

Appendix B
Summary Statistics

	General Statistics on Uncensored Data
Date/Time of Computation	ProUCL 5.19/18/2024 1:56:52 PM
User Selected Options	
From File	BAM_2024Q2_proUCL_UPLOAD.xls
Full Precision	OFF

From File: BAM_2024Q2_proUCL_UPLOAD.xls

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method

Variable	NumObs	# Missing	Num Ds	NumNDs	% NDs	Min ND	Max ND	KM Mean	KM Var	KM SD	KM CV
Boron (m-59)	27	4	27	0	0.00%	N/A	N/A	0.497	2.0627E-4	0.0144	0.0289
Boron (m-60)	28	5	28	0	0.00%	N/A	N/A	0.511	4.6455E-4	0.0216	0.0421
Boron (m-61)	27	3	27	0	0.00%	N/A	N/A	0.499	1.7179E-4	0.0131	0.0263
Calcium (m-59)	27	4	27	0	0.00%	N/A	N/A	87.33	9.538	3.088	0.0354
Calcium (m-60)	27	6	27	0	0.00%	N/A	N/A	86.96	13.27	3.643	0.0419
Calcium (m-61)	27	3	27	0	0.00%	N/A	N/A	90.19	6.695	2.588	0.0287
Chloride (m-59)	28	3	28	0	0.00%	N/A	N/A	1332	11151	105.6	0.0793
Chloride (m-60)	28	5	28	0	0.00%	N/A	N/A	1364	5344	73.1	0.0536
Chloride (m-61)	27	3	27	0	0.00%	N/A	N/A	1374	11225	105.9	0.0771
Fluoride (m-59)	27	4	27	0	0.00%	N/A	N/A	1.4	0.00923	0.0961	0.0686
Fluoride (m-60)	28	5	28	0	0.00%	N/A	N/A	1.453	0.00599	0.0774	0.0533
Fluoride (m-61)	27	3	27	0	0.00%	N/A	N/A	1.426	0.00661	0.0813	0.057
Lab_pH (m-59)	27	4	27	0	0.00%	N/A	N/A	7.696	0.0202	0.142	0.0185
Lab_pH (m-60)	26	7	26	0	0.00%	N/A	N/A	7.692	0.0262	0.162	0.021
Lab_pH (m-61)	26	4	26	0	0.00%	N/A	N/A	7.67	0.0247	0.157	0.0205
Sulfate (m-59)	29	2	29	0	0.00%	N/A	N/A	353.4	387.7	19.69	0.0557
Sulfate (m-60)	29	4	29	0	0.00%	N/A	N/A	362.4	711.8	26.68	0.0736
Sulfate (m-61)	28	2	28	0	0.00%	N/A	N/A	361.4	612.7	24.75	0.0685
solved Solids (m-59)	28	3	28	0	0.00%	N/A	N/A	2718	15595	124.9	0.0459
solved Solids (m-60)	30	3	30	0	0.00%	N/A	N/A	2870	115966	340.5	0.119
solved Solids (m-61)	29	1	29	0	0.00%	N/A	N/A	2848	58300	241.5	0.0848

General Statistics for Raw Data Sets using Detected Data Only

Variable	NumObs	# Missing	Minimum	Maximum	Mean	Median	Var	SD	MAD/0.675	Skewness	CV
Boron (m-59)	27	4	0.48	0.53	0.497	0.5	2.0627E-4	0.0144	0.0148	0.818	0.0289
Boron (m-60)	28	5	0.48	0.58	0.511	0.51	4.6455E-4	0.0216	0.0148	0.997	0.0421

Appendix B
Summary Statistics

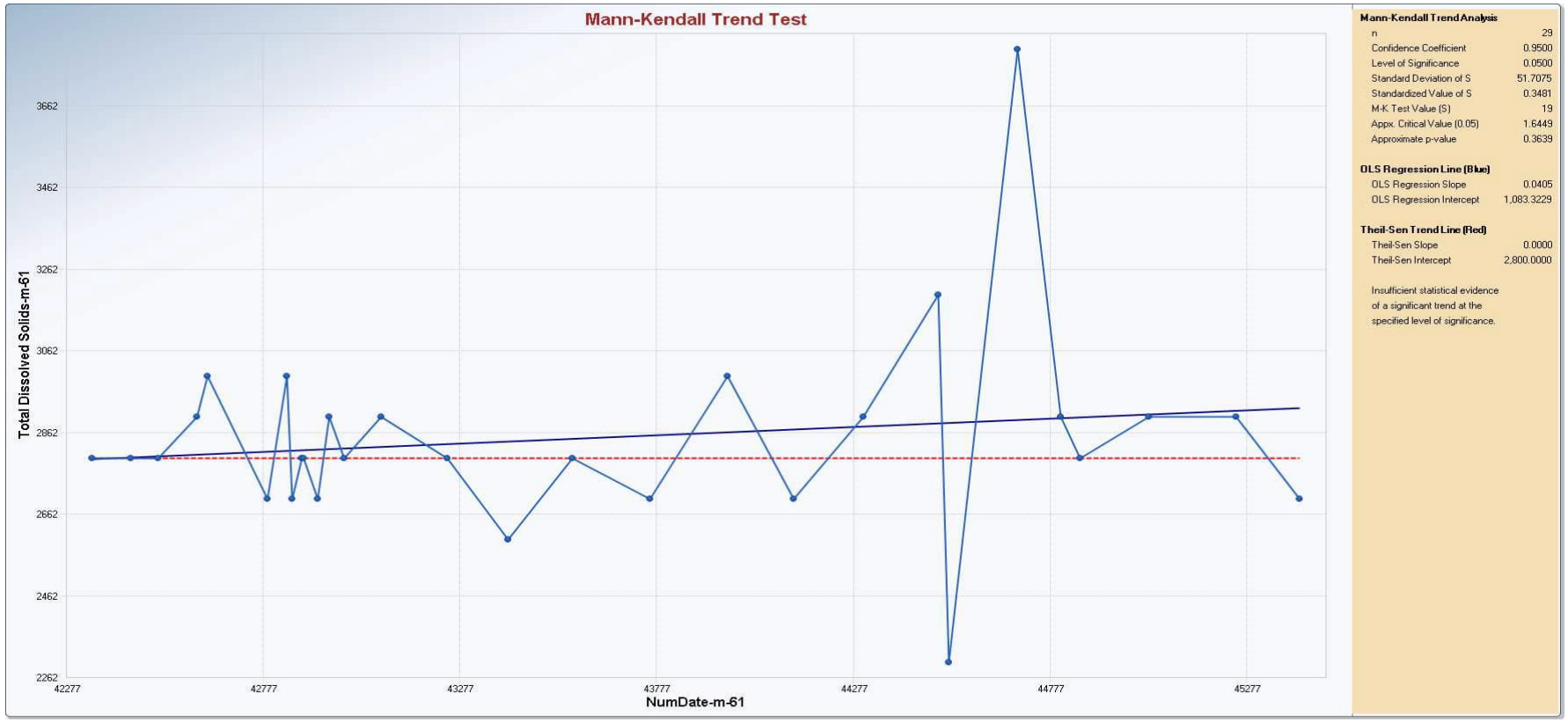
General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method											
Boron (m-61)	27	3	0.48	0.53	0.499	0.5	1.7179E-4	0.0131	0.0148	0.441	0.0263
Calcium (m-59)	27	4	79	93	87.33	87	9.538	3.088	2.965	-0.279	0.0354
Calcium (m-60)	27	6	79	96	86.96	88	13.27	3.643	2.965	0.00114	0.0419
Calcium (m-61)	27	3	86	97	90.19	90	6.695	2.588	2.965	0.485	0.0287
Chloride (m-59)	28	3	1200	1700	1332	1300	11151	105.6	148.3	1.322	0.0793
Chloride (m-60)	28	5	1200	1500	1364	1400	5344	73.1	0	-0.538	0.0536
Chloride (m-61)	27	3	1100	1700	1374	1400	11225	105.9	0	0.355	0.0771
Fluoride (m-59)	27	4	1.3	1.8	1.4	1.4	0.00923	0.0961	0	2.81	0.0686
Fluoride (m-60)	28	5	1.3	1.7	1.453	1.4	0.00599	0.0774	0.0741	1.066	0.0533
Fluoride (m-61)	27	3	1.3	1.7	1.426	1.4	0.00661	0.0813	0	1.327	0.057
Lab_pH (m-59)	27	4	7.5	8.1	7.696	7.7	0.0202	0.142	0.148	0.791	0.0185
Lab_pH (m-60)	26	7	7.5	8.2	7.692	7.7	0.0262	0.162	0.148	1.363	0.021
Lab_pH (m-61)	26	4	7.22	8	7.67	7.7	0.0247	0.157	0.148	-0.566	0.0205
Sulfate (m-59)	29	2	330	430	353.4	350	387.7	19.69	14.83	2.586	0.0557
Sulfate (m-60)	29	4	330	450	362.4	350	711.8	26.68	14.83	2.243	0.0736
Sulfate (m-61)	28	2	330	450	361.4	360	612.7	24.75	14.83	2.222	0.0685
olved Solids (m-59)	28	3	2300	2900	2718	2700	15595	124.9	148.3	-1.592	0.0459
olved Solids (m-60)	30	3	2200	4200	2870	2800	115966	340.5	148.3	2.633	0.119
olved Solids (m-61)	29	1	2300	3800	2848	2800	58300	241.5	148.3	1.952	0.0848

Percentiles using all Detects (Ds) and Non-Detects (NDs)											
Variable	**NumObs**	**# Missing**	**10%ile**	**20%ile**	**25%ile(Q1)**	**50%ile(Q2)**	**75%ile(Q3)**	**80%ile**	**90%ile**	**95%ile**	**99%ile**
Boron (m-59)	27	4	0.48	0.482	0.49	0.5	0.5	0.508	0.514	0.527	0.53
Boron (m-60)	28	5	0.487	0.494	0.5	0.51	0.523	0.53	0.53	0.537	0.569
Boron (m-61)	27	3	0.48	0.49	0.49	0.5	0.51	0.51	0.514	0.52	0.527
Calcium (m-59)	27	4	84	85	85.5	87	89	89.8	90.8	92.7	93
Calcium (m-60)	27	6	83	84.2	85	88	89	89.8	90.4	91.7	94.96
Calcium (m-61)	27	3	87	88	88	90	92	92	93	93.7	96.22
Chloride (m-59)	28	3	1200	1240	1300	1300	1400	1400	1400	1400	1619
Chloride (m-60)	28	5	1300	1300	1300	1400	1400	1400	1400	1465	1500
Chloride (m-61)	27	3	1300	1300	1300	1400	1400	1400	1440	1500	1648
Fluoride (m-59)	27	4	1.3	1.32	1.4	1.4	1.4	1.4	1.44	1.5	1.722
Fluoride (m-60)	28	5	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.546	1.665
Fluoride (m-61)	27	3	1.36	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.648
Lab_pH (m-59)	27	4	7.518	7.6	7.6	7.7	7.8	7.8	7.84	7.9	8.048
Lab_pH (m-60)	26	7	7.5	7.6	7.6	7.7	7.8	7.8	7.815	7.958	8.15

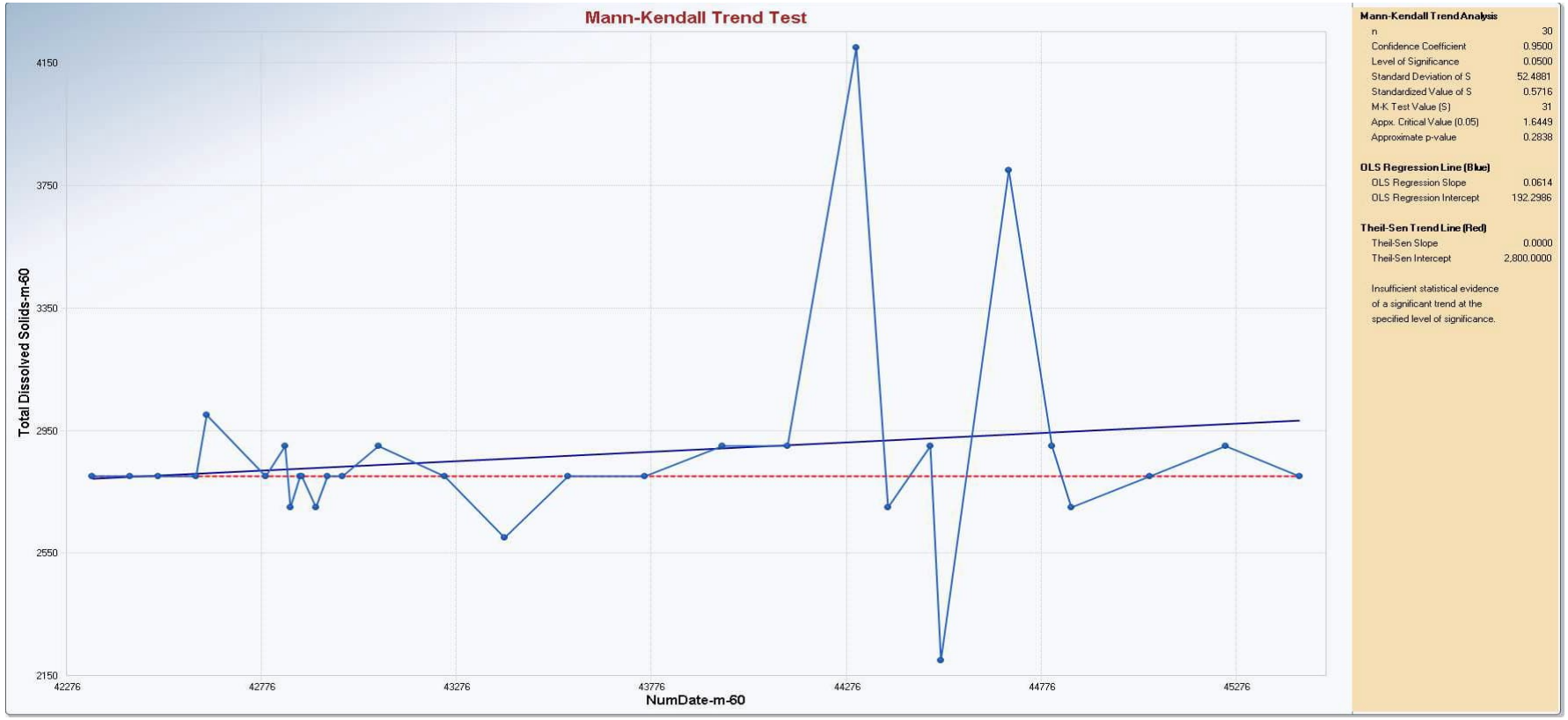
Appendix B
Summary Statistics

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method											
Lab_pH (m-61)	26	4	7.5	7.59	7.6	7.7	7.8	7.8	7.8	7.875	7.975
Sulfate (m-59)	29	2	340	340	340	350	360	360	362	388	421.6
Sulfate (m-60)	29	4	340	350	350	350	370	370	384	424	447.2
Sulfate (m-61)	28	2	340	350	350	360	362.5	370	383	409.5	441.9
solved Solids (m-59)	28	3	2570	2700	2700	2700	2800	2800	2800	2865	2900
solved Solids (m-60)	30	3	2700	2780	2800	2800	2900	2900	2910	3440	4084
solved Solids (m-61)	29	1	2700	2700	2700	2800	2900	2900	3000	3120	3632

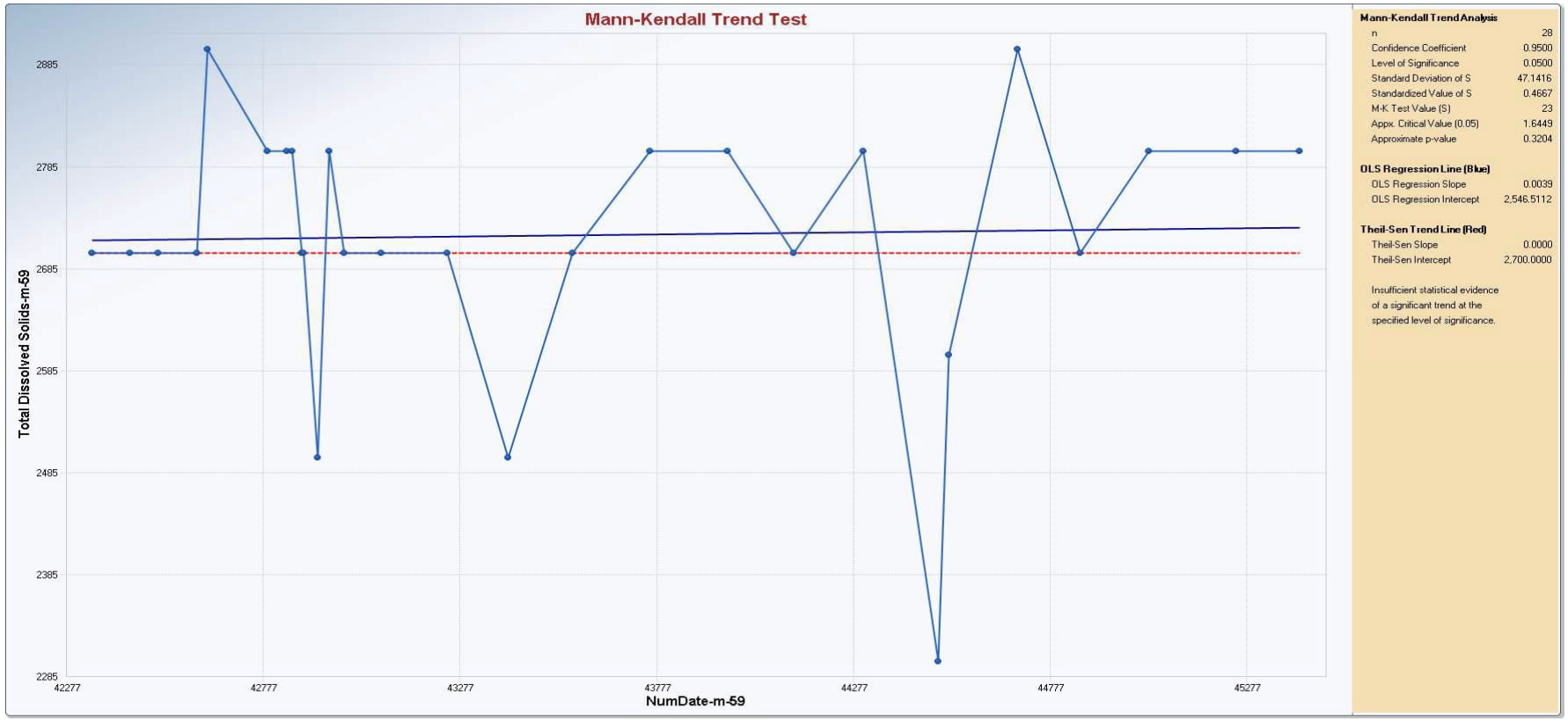
Appendix B
Time Series Plots



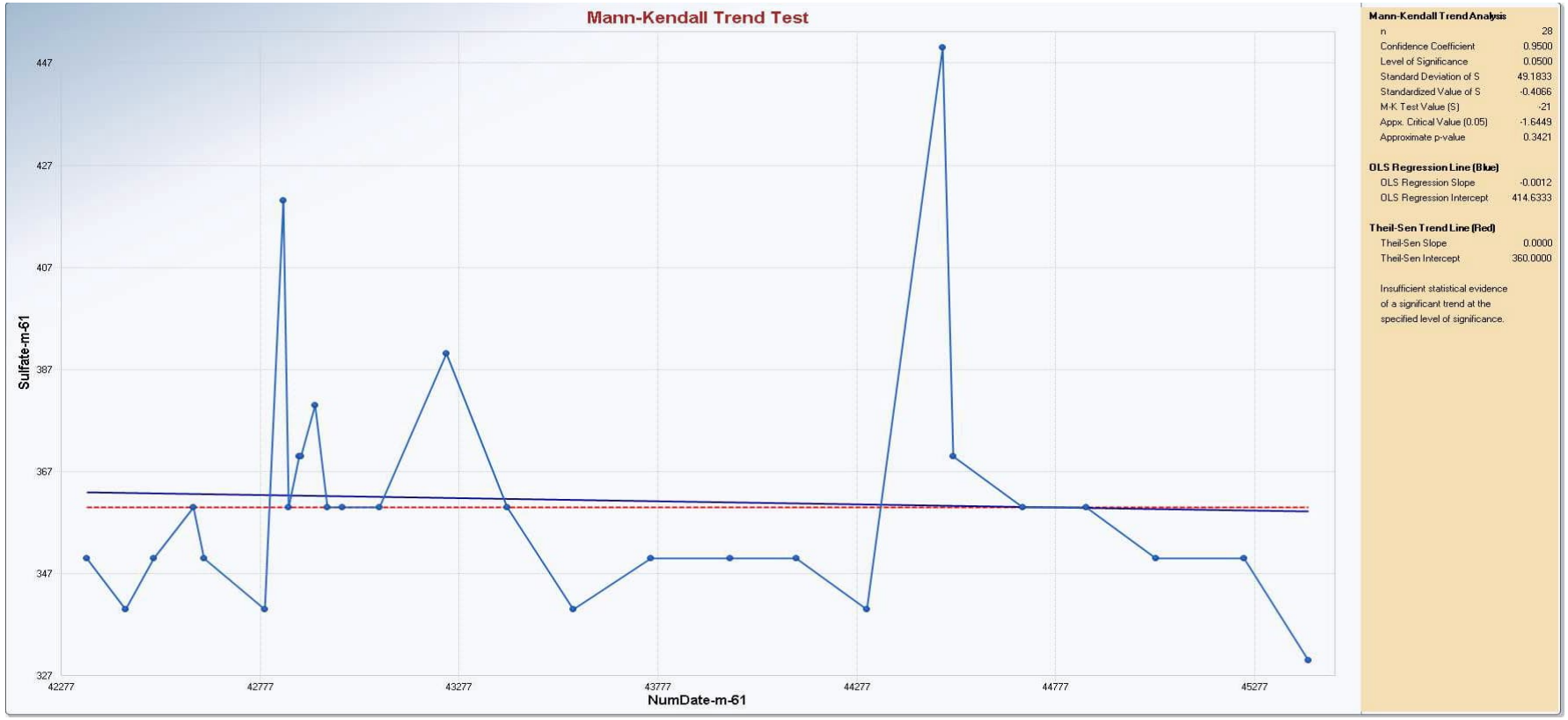
Appendix B
Time Series Plots



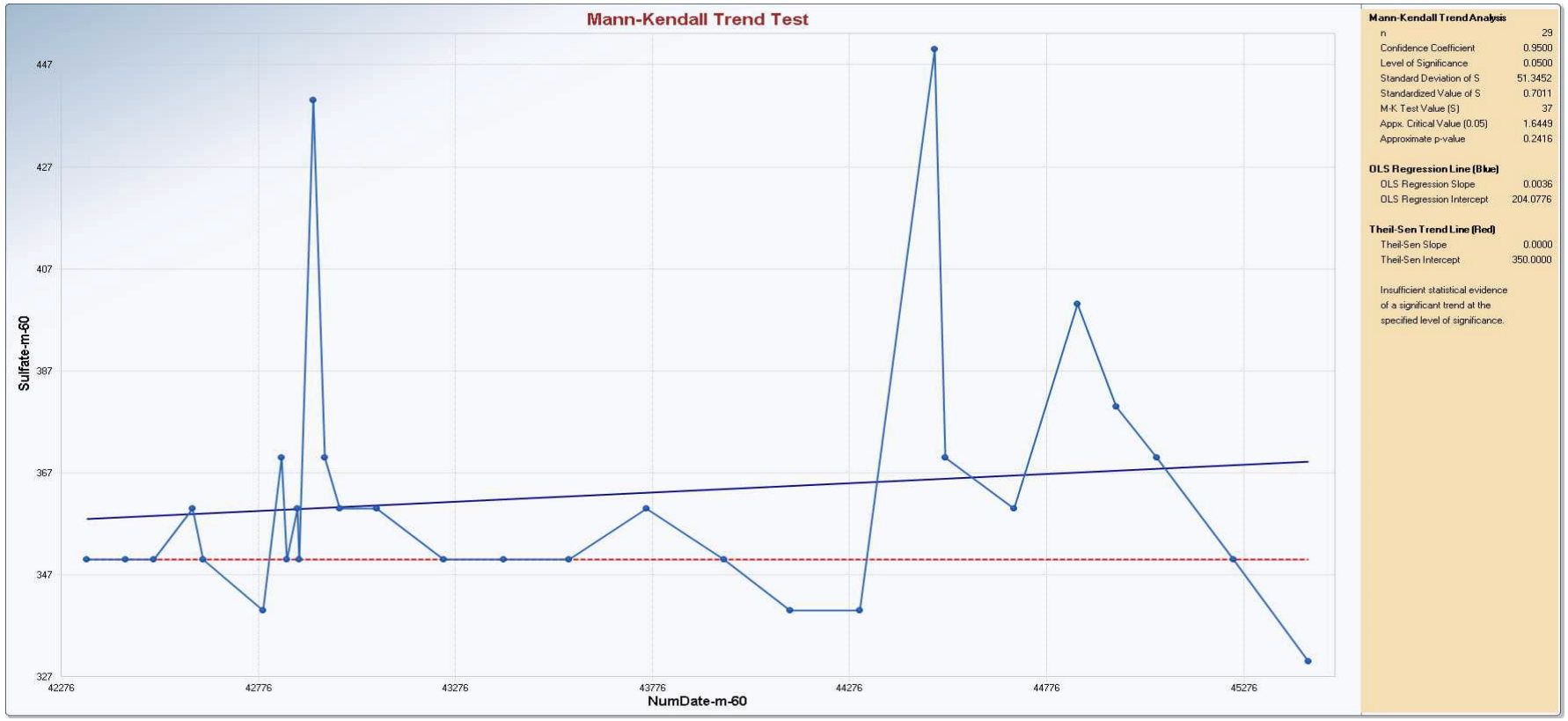
Appendix B
Time Series Plots



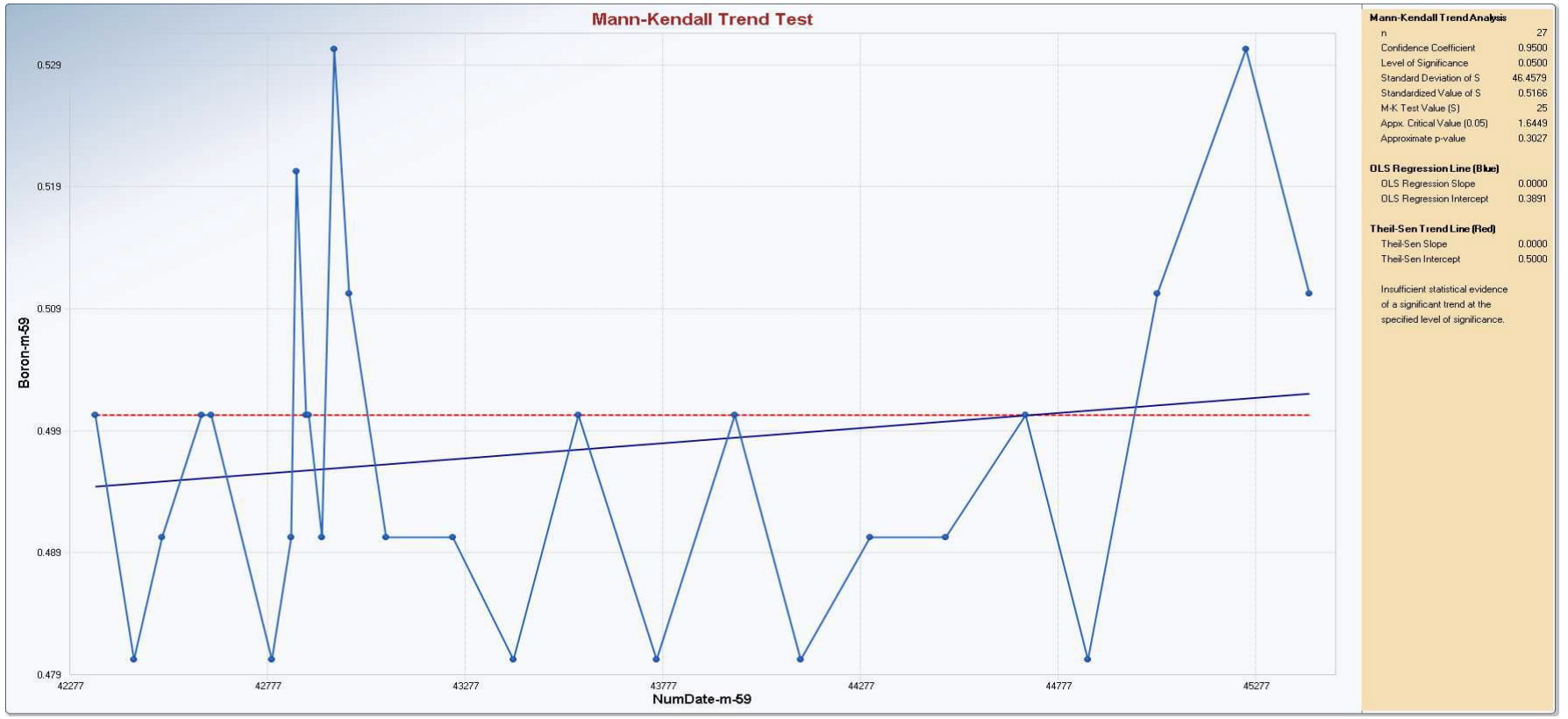
Appendix B
Time Series Plots



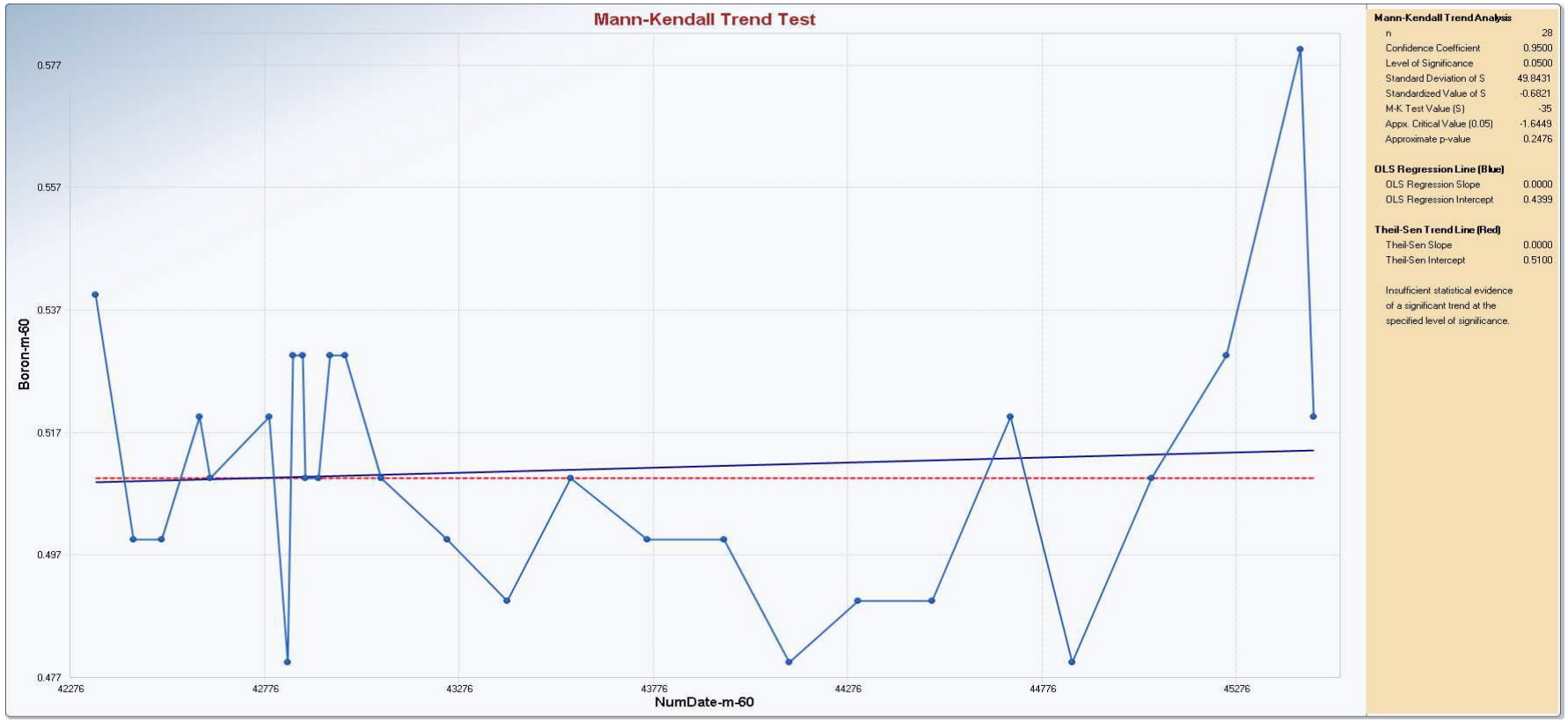
Appendix B
Time Series Plots



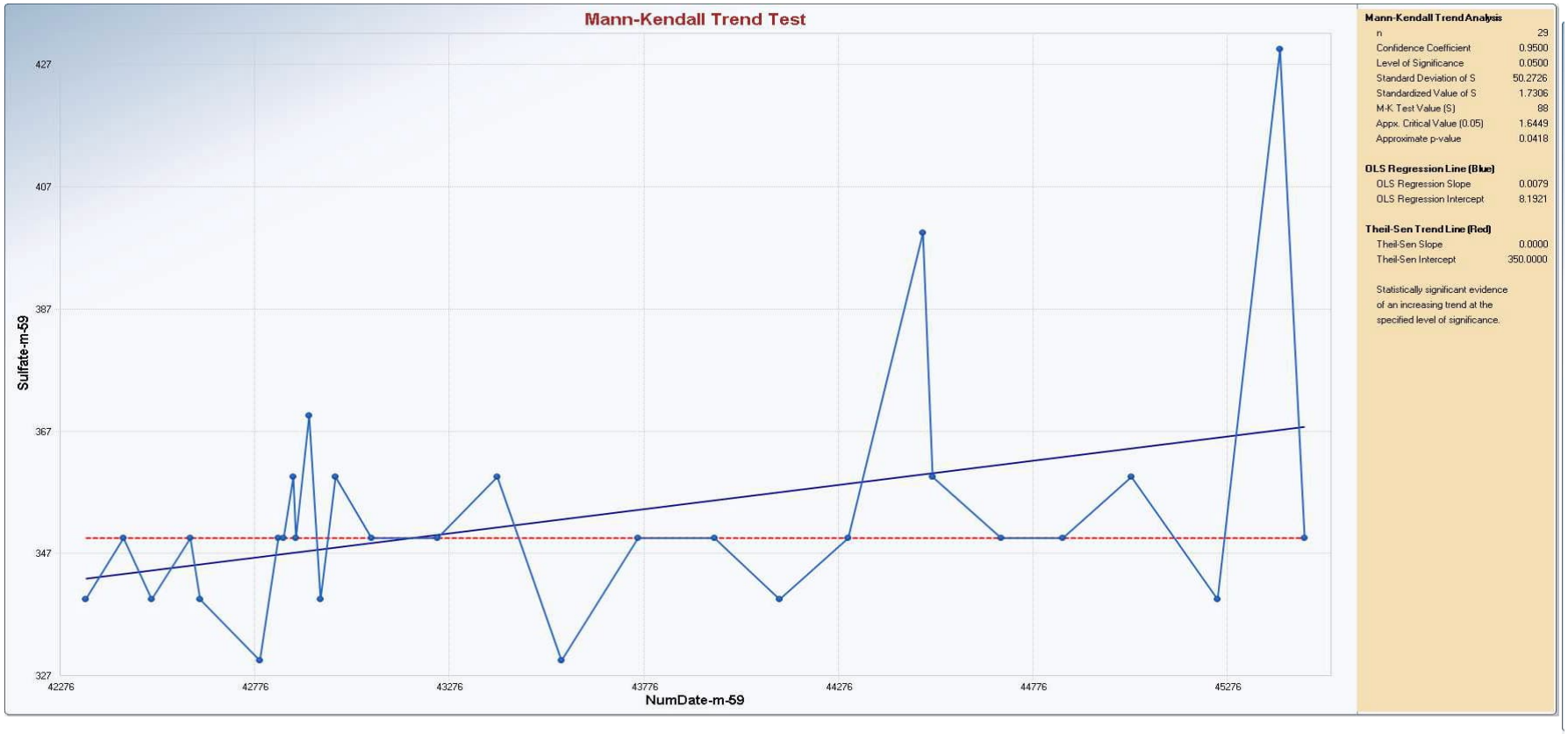
Appendix B
Time Series Plots



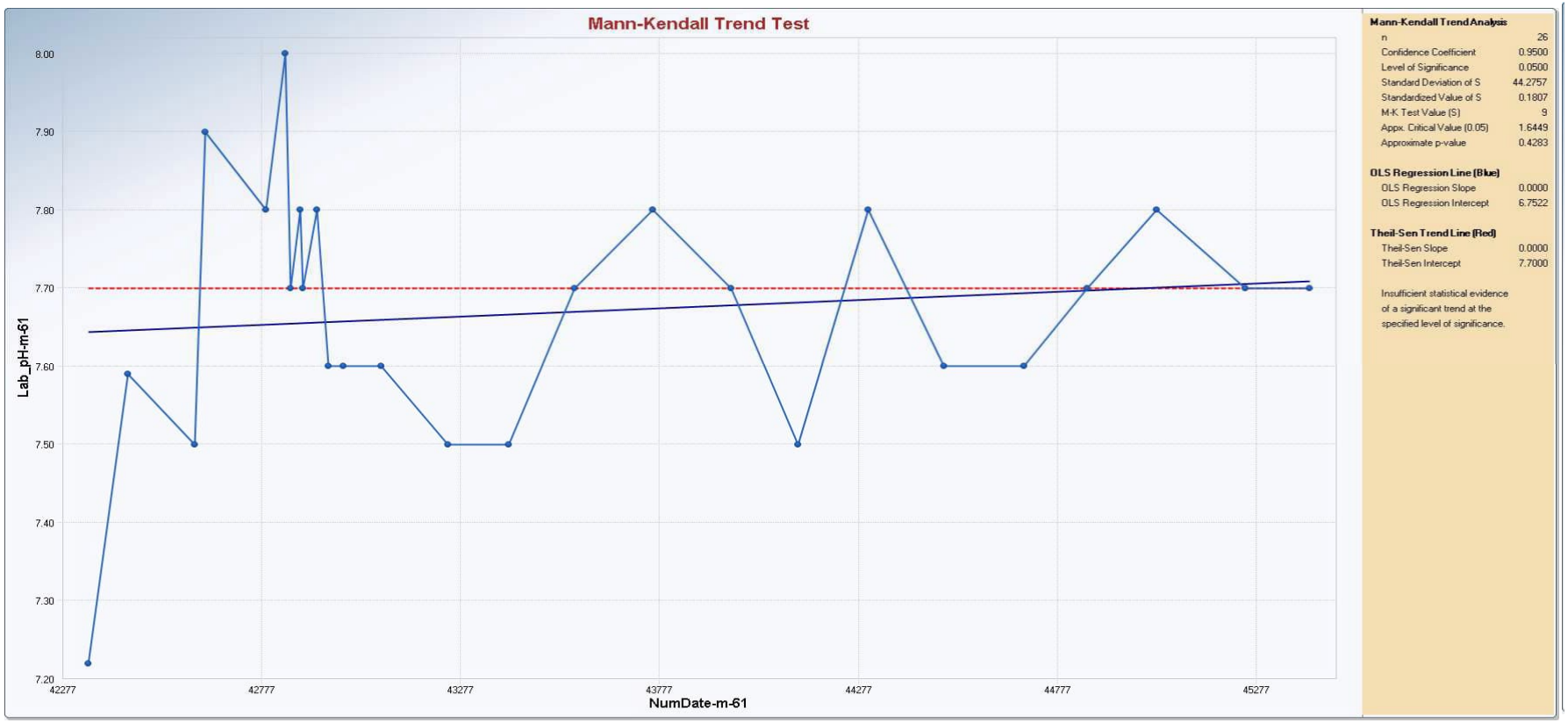
Appendix B
Time Series Plots



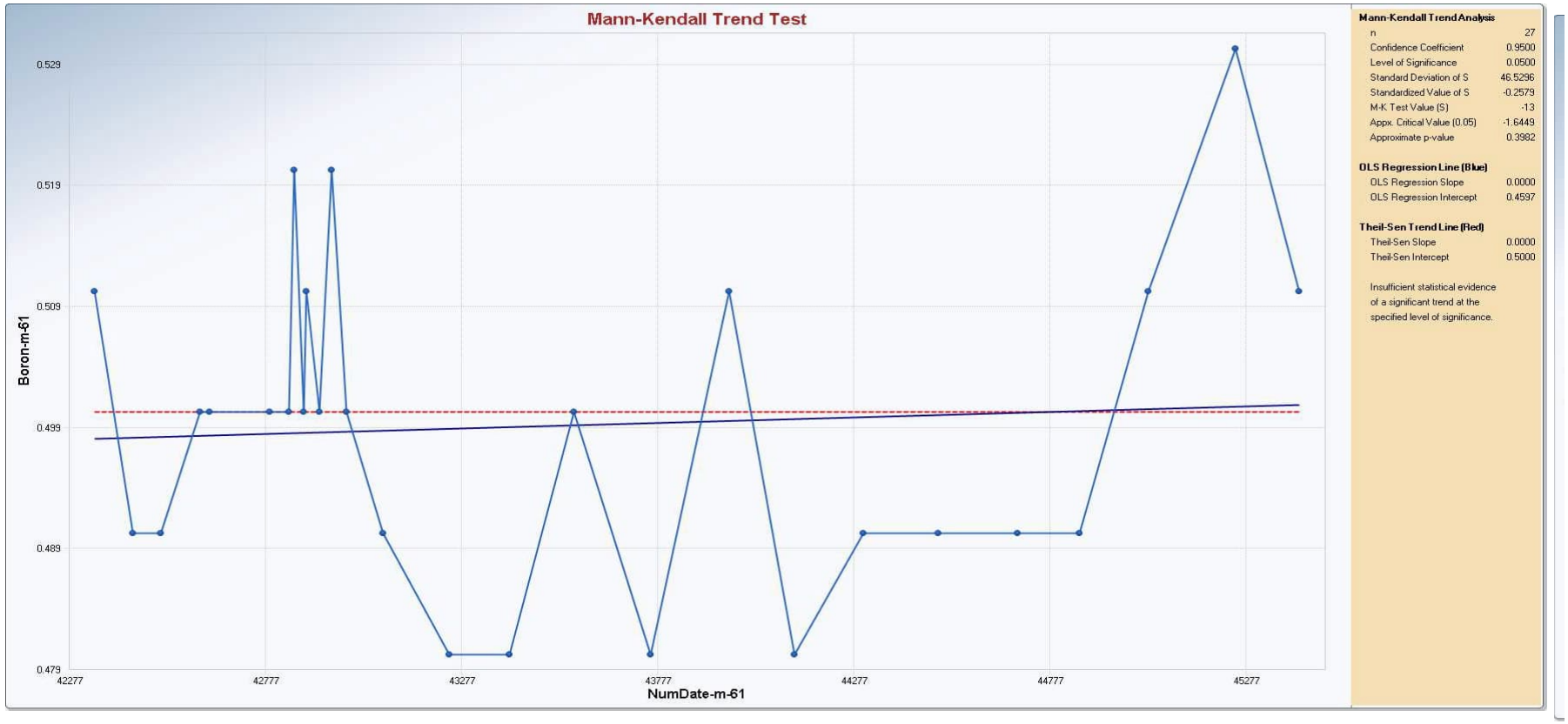
Appendix B
Time Series Plots



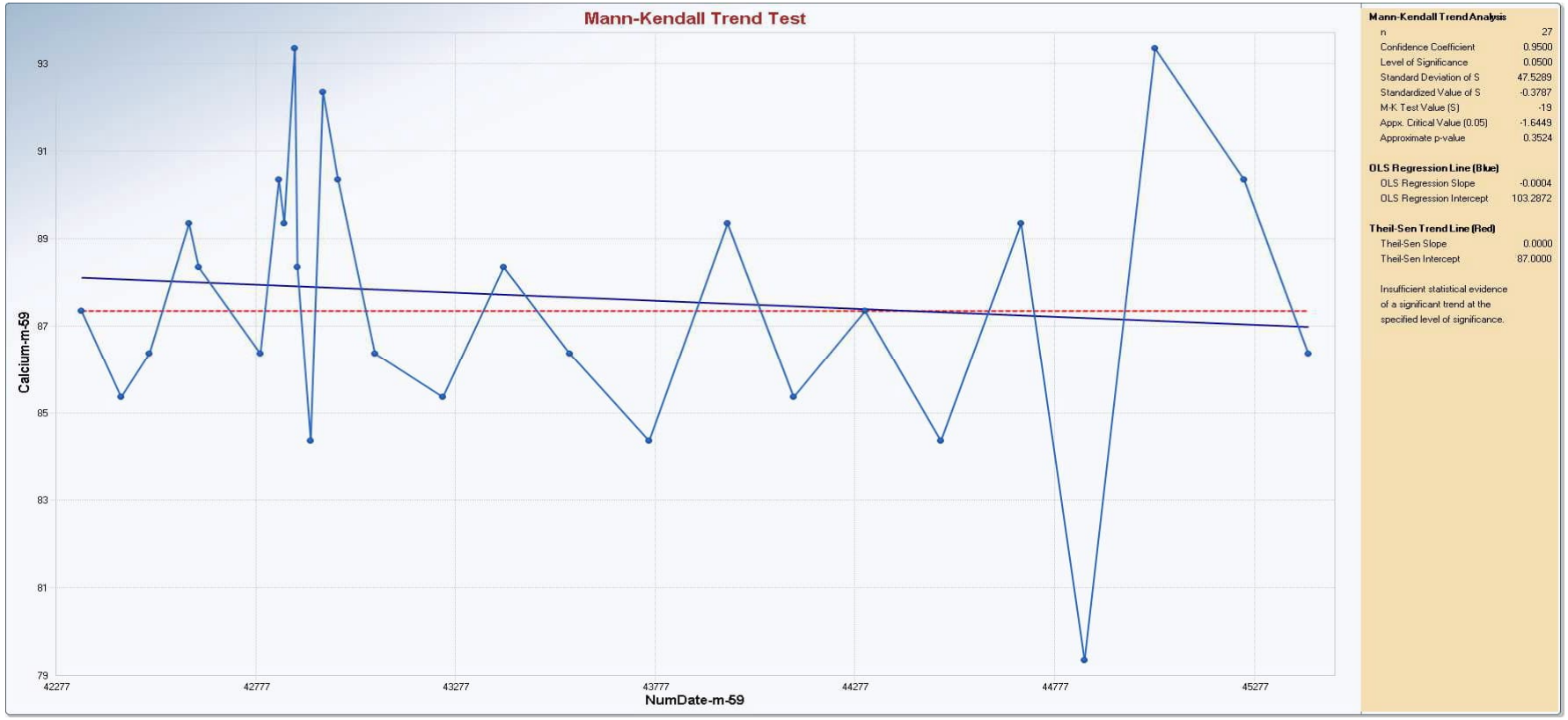
Appendix B
Time Series Plots



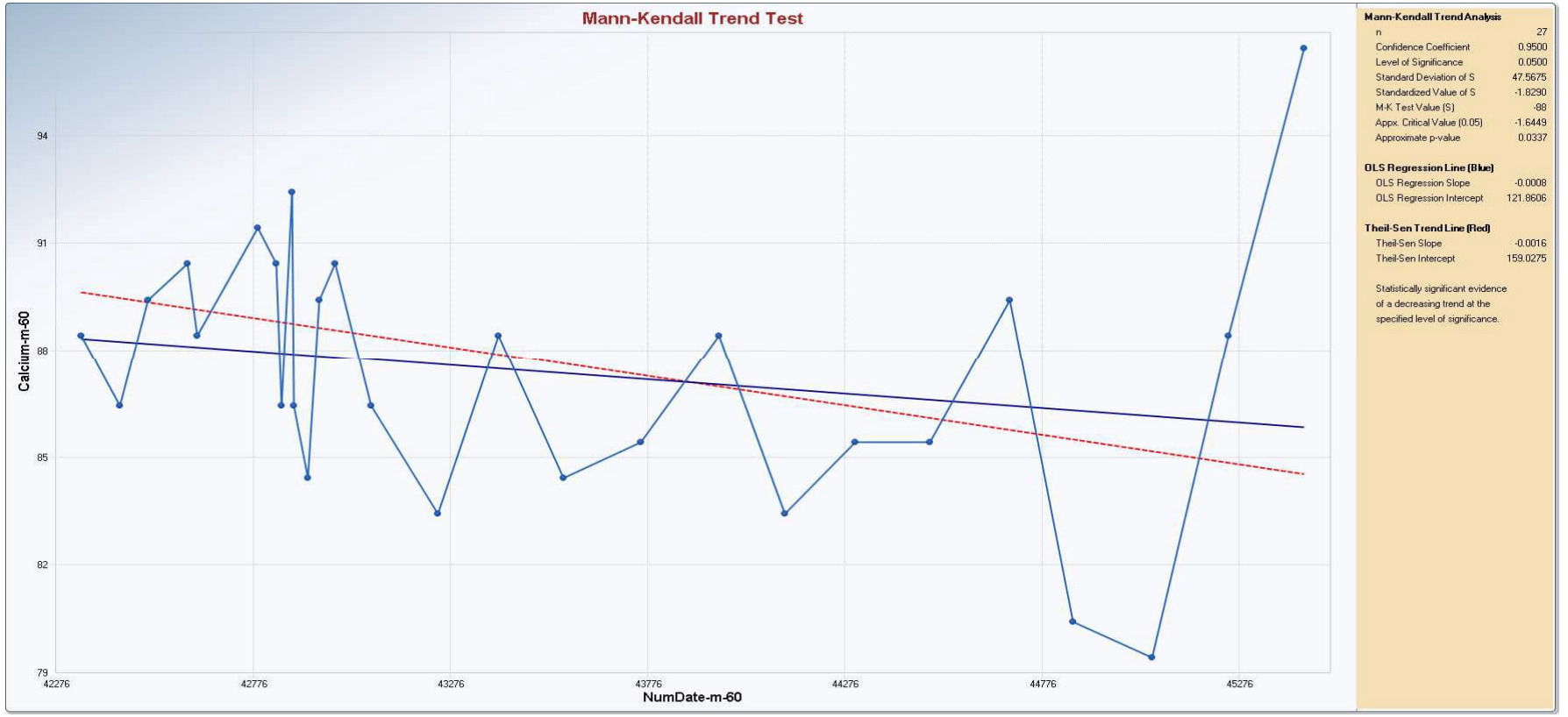
Appendix B
Time Series Plots



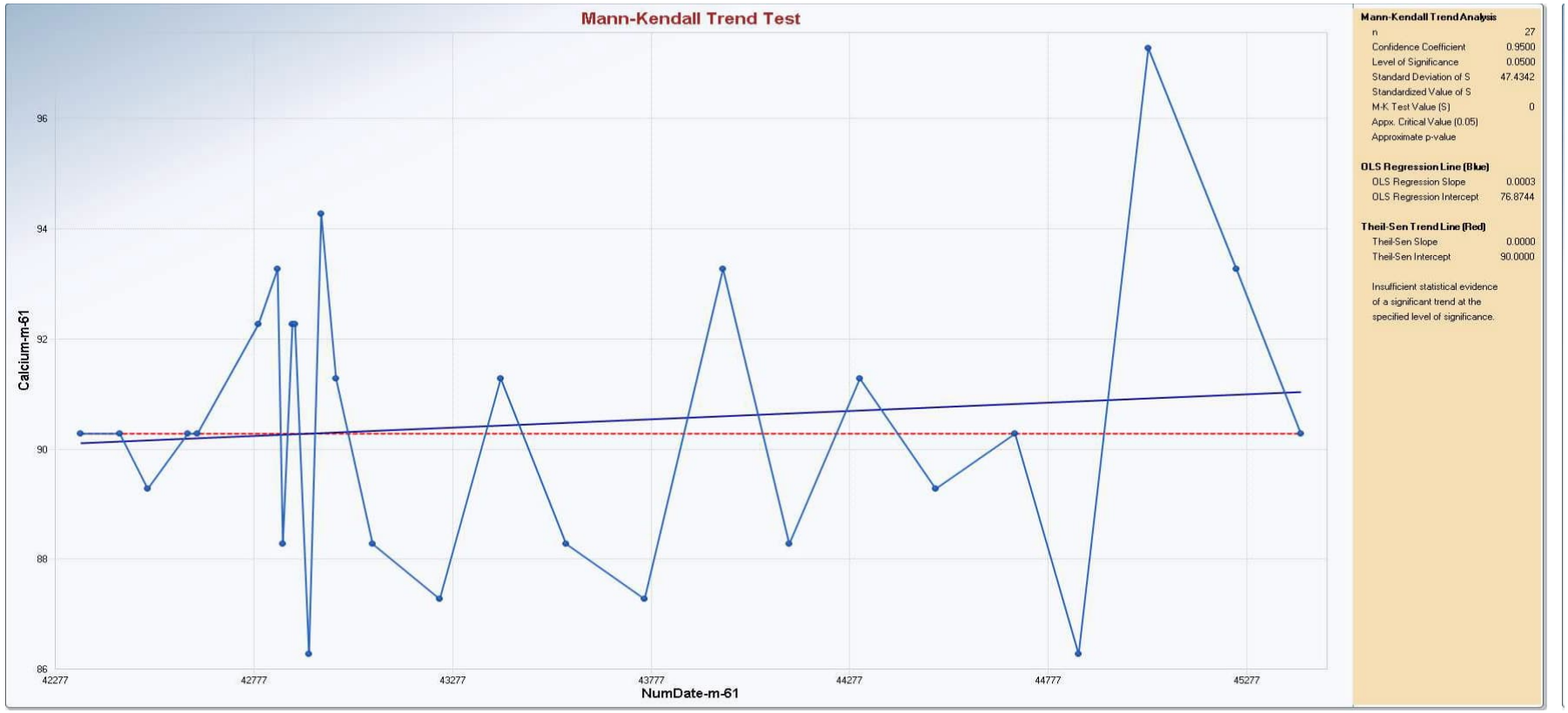
Appendix B
Time Series Plots



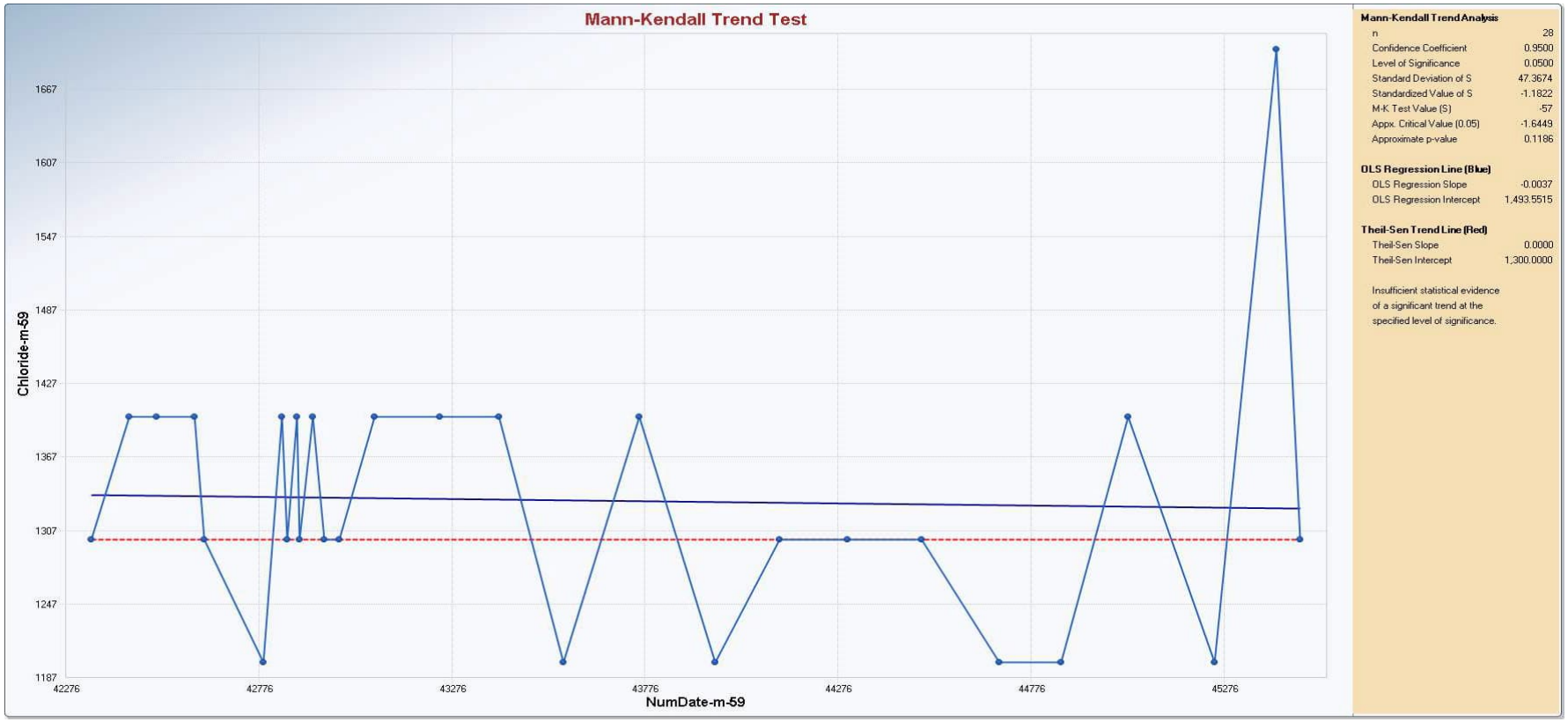
Appendix B
Time Series Plots



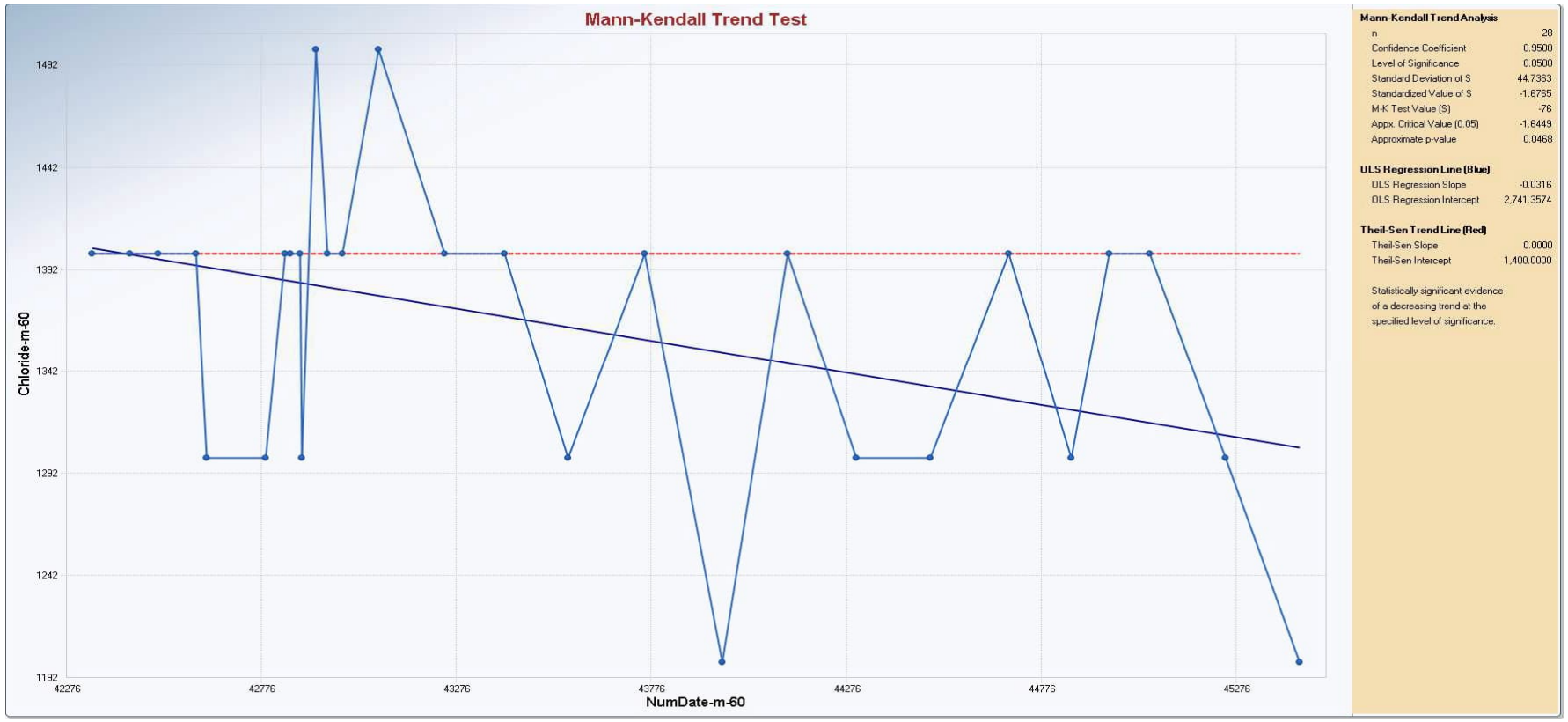
Appendix B
Time Series Plots



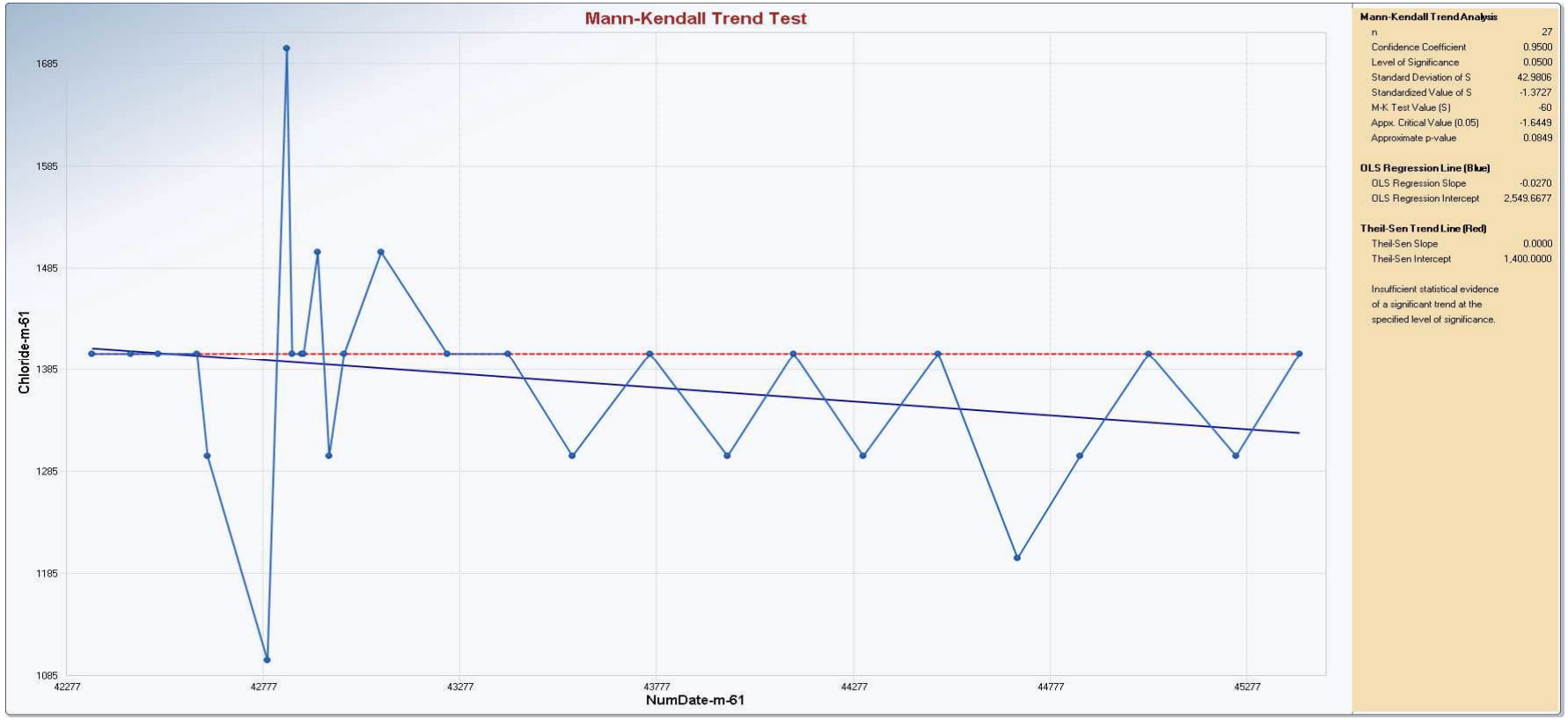
Appendix B
Time Series Plots



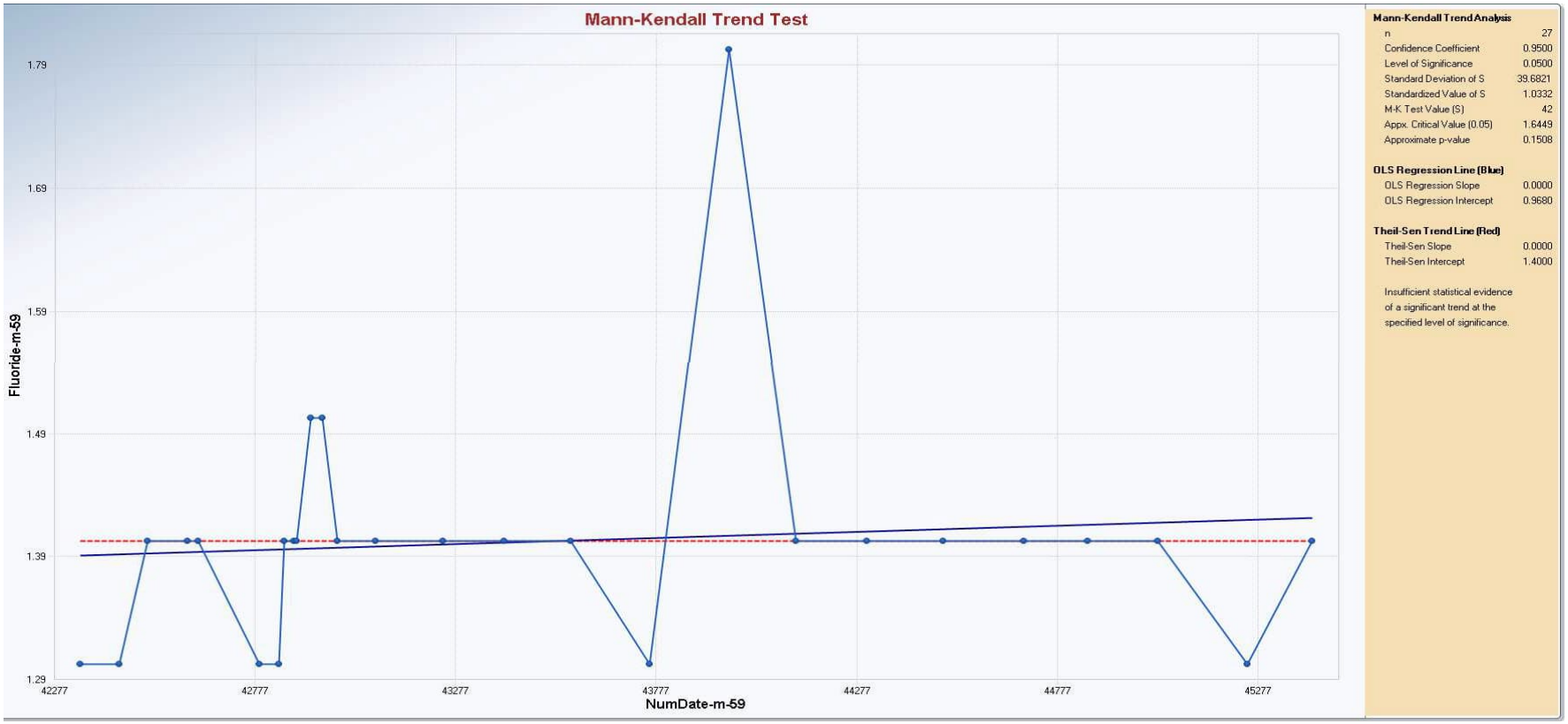
Appendix B
Time Series Plots



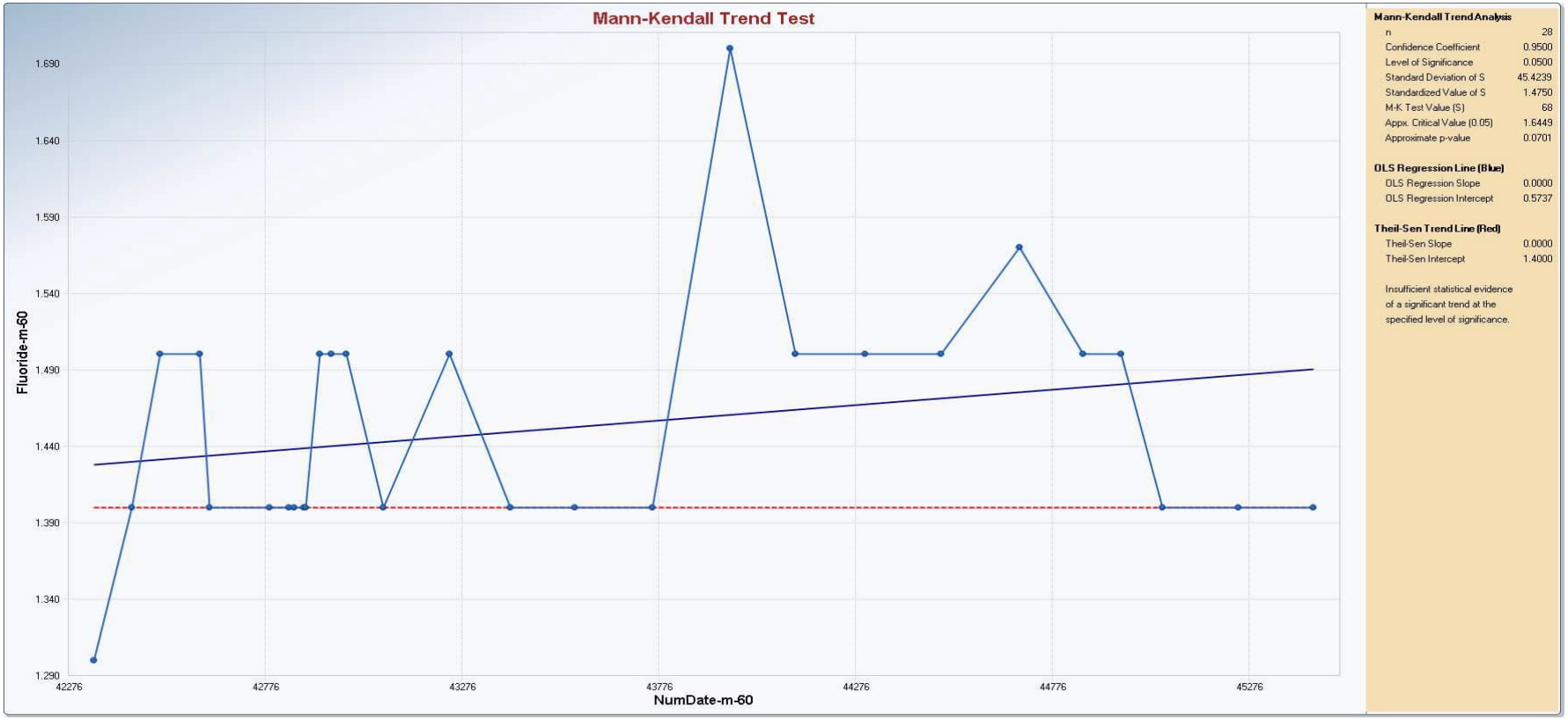
Appendix B
Time Series Plots



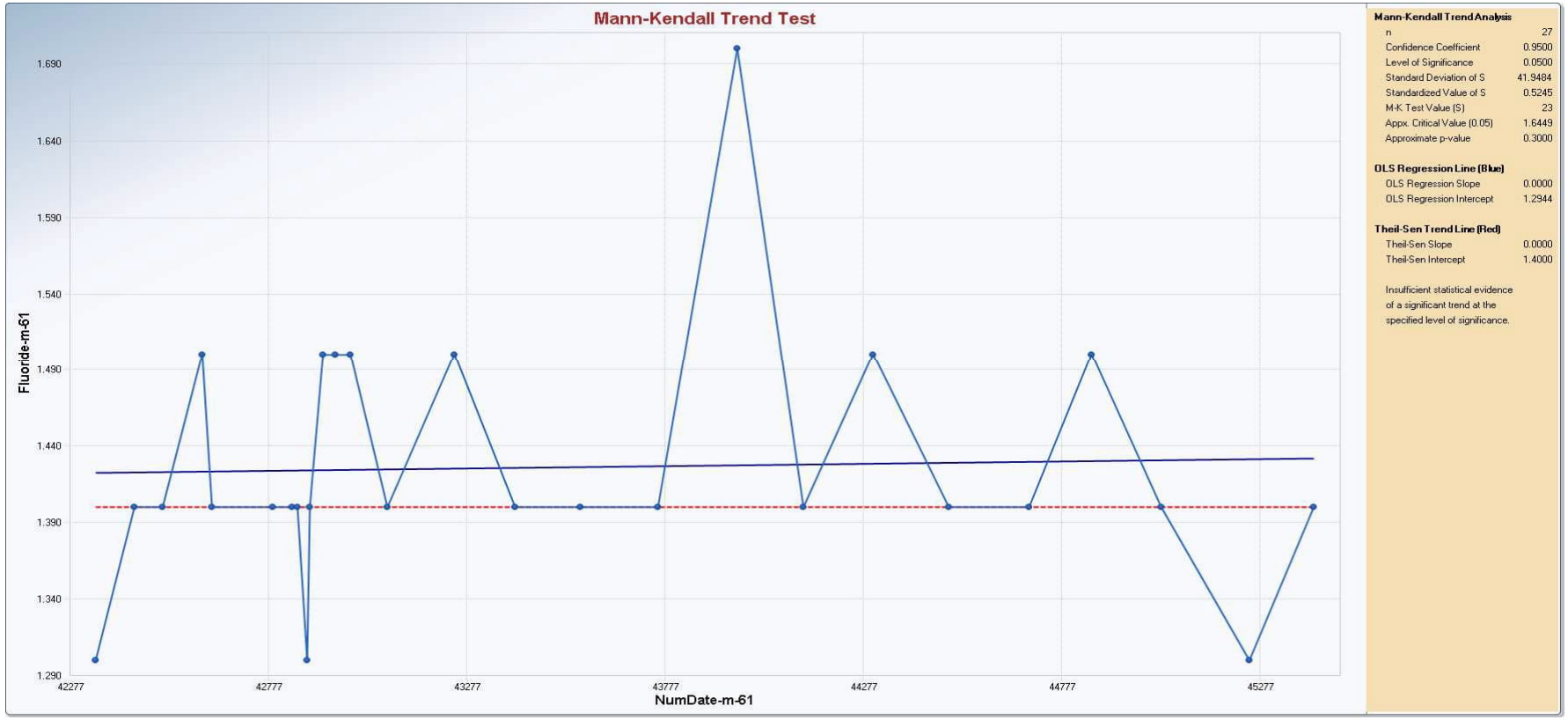
Appendix B
Time Series Plots



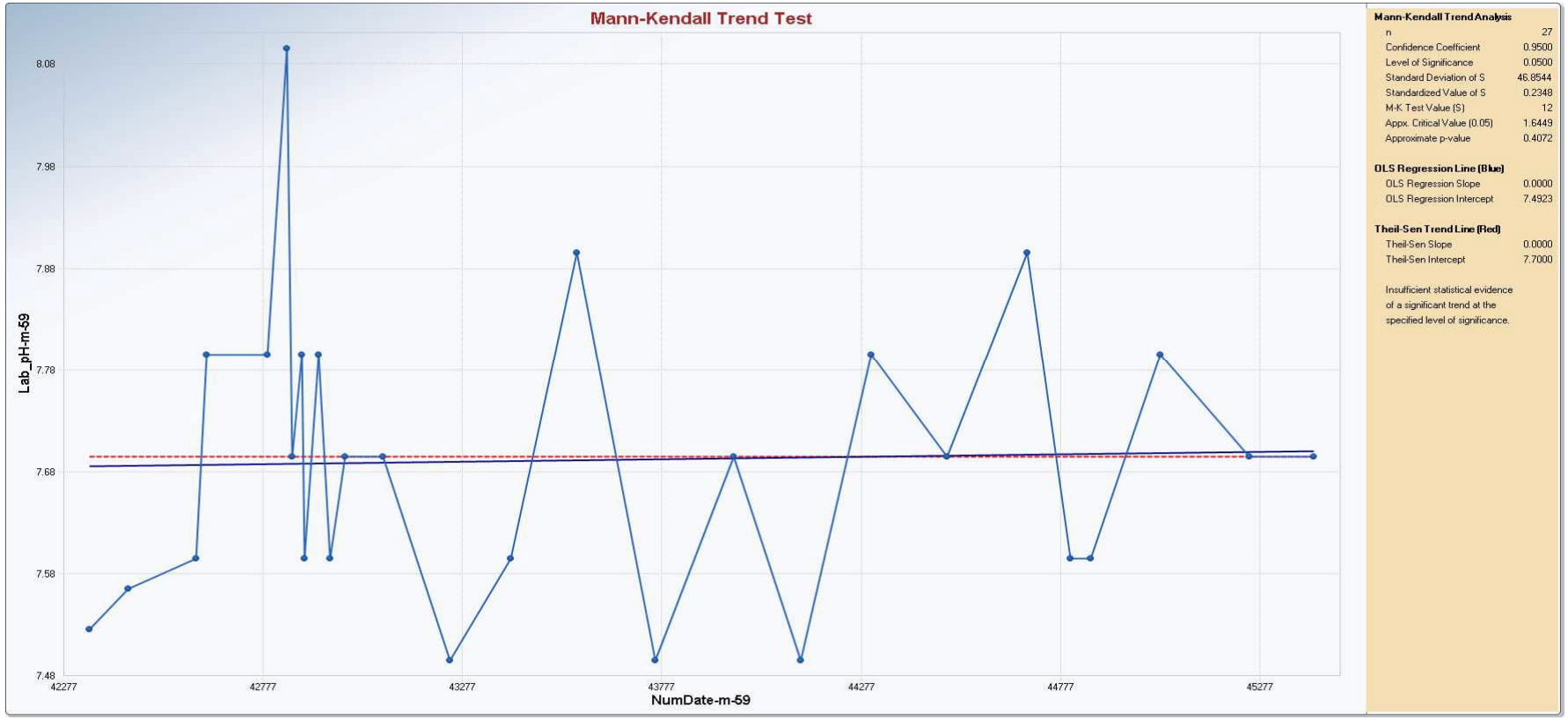
Appendix B
Time Series Plots



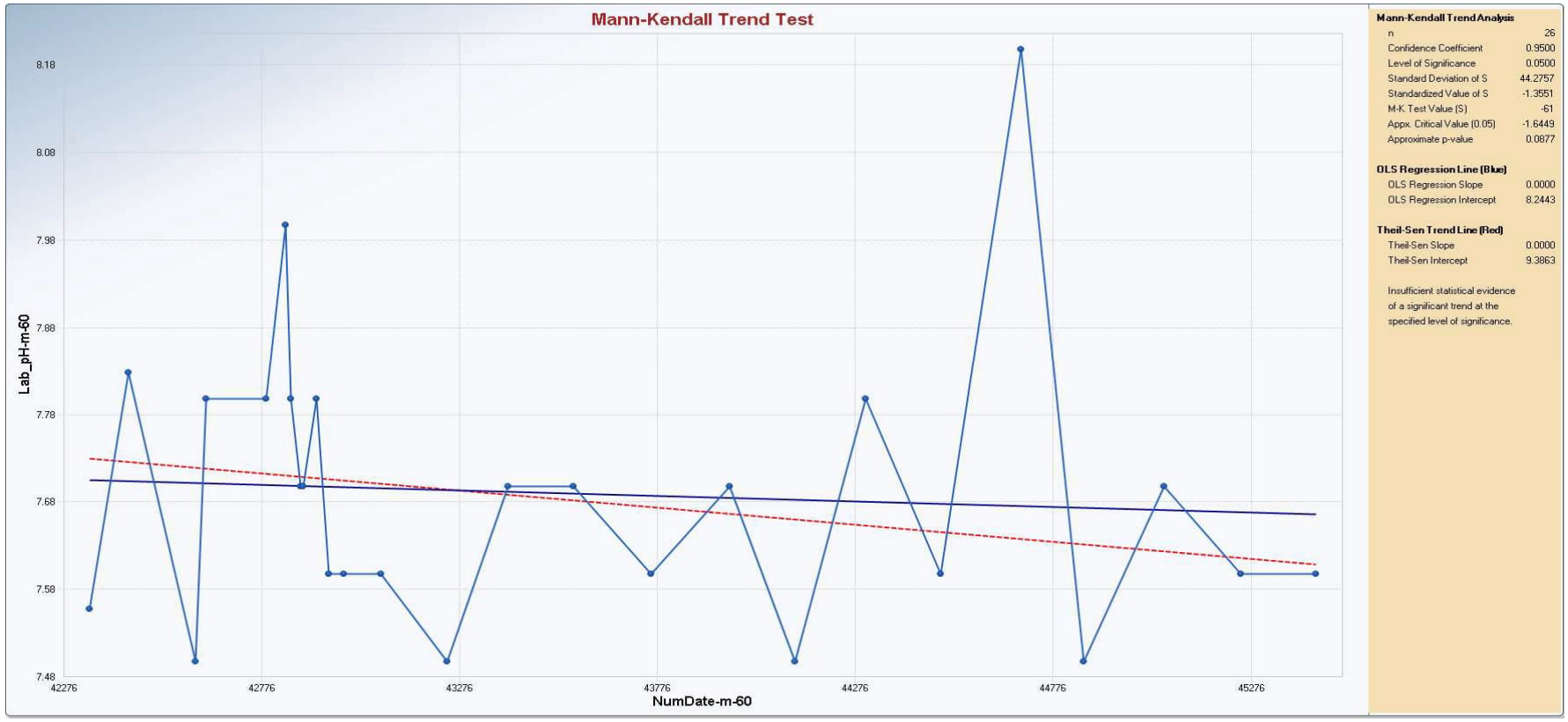
Appendix B
Time Series Plots



Appendix B
Time Series Plots



Appendix B
Time Series Plots



Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/18/2024 2:18:39 PM
From File	BAM_2024Q2_proUCL_UPLOAD.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Boron-m-59	
General Statistics	
Number of Events Reported (m)	31
Number of Missing Events	4
Number or Reported Events Used	27
Number Values Reported (n)	31
Number Values Missing	4
Number Values Used	27
Minimum	0.48
Maximum	0.53
Mean	0.497
Geometric Mean	0.497
Median	0.5
Standard Deviation	0.0144
Coefficient of Variation	0.0289
Mann-Kendall Test	
M-K Test Value (S)	25
Critical Value (0.05)	1.645
Standard Deviation of S	46.46
Standardized Value of S	0.517
Approximate p-value	0.303
Insufficient evidence to identify a significant trend at the specified level of significance.	
Boron-m-60	
General Statistics	
Number of Events Reported (m)	33
Number of Missing Events	5
Number or Reported Events Used	28

Appendix B
Time Series Statistics

Number Values Reported (n)	33
Number Values Missing	5
Number Values Used	28
Minimum	0.48
Maximum	0.58
Mean	0.511
Geometric Mean	0.511
Median	0.51
Standard Deviation	0.0216
Coefficient of Variation	0.0421
Mann-Kendall Test	
M-K Test Value (S)	-35
Critical Value (0.05)	-1.645
Standard Deviation of S	49.84
Standardized Value of S	-0.682
Approximate p-value	0.248
Insufficient evidence to identify a significant trend at the specified level of significance.	
Boron-m-61	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	3
Number or Reported Events Used	27
Number Values Reported (n)	30
Number Values Missing	3
Number Values Used	27
Minimum	0.48
Maximum	0.53
Mean	0.499
Geometric Mean	0.499
Median	0.5
Standard Deviation	0.0131
Coefficient of Variation	0.0263
Mann-Kendall Test	
M-K Test Value (S)	-13
Critical Value (0.05)	-1.645

Appendix B
Time Series Statistics

Standard Deviation of S	46.53
Standardized Value of S	-0.258
Approximate p-value	0.398
Insufficient evidence to identify a significant trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/18/2024 2:21:12 PM
From File	BAM_2024Q2_proUCL_UPLOAD.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Calcium-m-59

General Statistics

Number of Events Reported (m)	31
Number of Missing Events	4
Number or Reported Events Used	27
Number Values Reported (n)	31
Number Values Missing	4
Number Values Used	27
Minimum	79
Maximum	93
Mean	87.33
Geometric Mean	87.28
Median	87
Standard Deviation	3.088
Coefficient of Variation	0.0354

Mann-Kendall Test

M-K Test Value (S)	-19
Critical Value (0.05)	-1.645
Standard Deviation of S	47.53
Standardized Value of S	-0.379
Approximate p-value	0.352
Insufficient evidence to identify a significant trend at the specified level of significance.	

Appendix B
Time Series Statistics

Calcium-m-60	
General Statistics	
Number of Events Reported (m)	33
Number of Missing Events	6
Number or Reported Events Used	27
Number Values Reported (n)	33
Number Values Missing	6
Number Values Used	27
Minimum	79
Maximum	96
Mean	86.96
Geometric Mean	86.89
Median	88
Standard Deviation	3.643
Coefficient of Variation	0.0419
Mann-Kendall Test	
M-K Test Value (S)	-88
Critical Value (0.05)	-1.645
Standard Deviation of S	47.57
Standardized Value of S	-1.829
Approximate p-value	0.0337
Statistically significant evidence of a decreasing trend at the specified level of significance.	
Calcium-m-61	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	3
Number or Reported Events Used	27
Number Values Reported (n)	30
Number Values Missing	3
Number Values Used	27
Minimum	86
Maximum	97
Mean	90.19
Geometric Mean	90.15
Median	90

Appendix B
Time Series Statistics

Standard Deviation	2.588
Coefficient of Variation	0.0287
Mann-Kendall Test	
M-K Test Value (S)	0
Critical Value (0.05)	N/A
Standard Deviation of S	47.43
Standardized Value of S	N/A
Approximate p-value	N/A
Insufficient evidence to identify a significant trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/18/2024 4:00:41 PM
From File	BAM_2024Q2_proUCL_UPLOAD.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Chloride-m-59	
General Statistics	
Number of Events Reported (m)	31
Number of Missing Events	3
Number or Reported Events Used	28
Number Values Reported (n)	31
Number Values Missing	3
Number Values Used	28
Minimum	1200
Maximum	1700
Mean	1332
Geometric Mean	1328
Median	1300
Standard Deviation	105.6
Coefficient of Variation	0.0793
Mann-Kendall Test	
M-K Test Value (S)	-57
Critical Value (0.05)	-1.645

Appendix B
Time Series Statistics

Standard Deviation of S	47.37
Standardized Value of S	-1.182
Approximate p-value	0.119
Insufficient evidence to identify a significant trend at the specified level of significance.	
Chloride-m-60	
General Statistics	
Number of Events Reported (m)	33
Number of Missing Events	5
Number or Reported Events Used	28
Number Values Reported (n)	33
Number Values Missing	5
Number Values Used	28
Minimum	1200
Maximum	1500
Mean	1364
Geometric Mean	1362
Median	1400
Standard Deviation	73.1
Coefficient of Variation	0.0536
Mann-Kendall Test	
M-K Test Value (S)	-76
Critical Value (0.05)	-1.645
Standard Deviation of S	44.74
Standardized Value of S	-1.676
Approximate p-value	0.0468
Statistically significant evidence of a decreasing trend at the specified level of significance.	
Chloride-m-61	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	3
Number or Reported Events Used	27
Number Values Reported (n)	30
Number Values Missing	3

Appendix B
Time Series Statistics

Number Values Used	27
Minimum	1100
Maximum	1700
Mean	1374
Geometric Mean	1370
Median	1400
Standard Deviation	105.9
Coefficient of Variation	0.0771
Mann-Kendall Test	
M-K Test Value (S)	-60
Critical Value (0.05)	-1.645
Standard Deviation of S	42.98
Standardized Value of S	-1.373
Approximate p-value	0.0849
Insufficient evidence to identify a significant trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/18/2024 4:17:21 PM
From File	BAM_2024Q2_proUCL_UPLOAD.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Fluoride-m-59	
General Statistics	
Number of Events Reported (m)	31
Number of Missing Events	4
Number or Reported Events Used	27
Number Values Reported (n)	31
Number Values Missing	4
Number Values Used	27
Minimum	1.3
Maximum	1.8
Mean	1.4
Geometric Mean	1.397
Median	1.4

Appendix B
Time Series Statistics

Standard Deviation	0.0961
Coefficient of Variation	0.0686
Mann-Kendall Test	
M-K Test Value (S)	42
Critical Value (0.05)	1.645
Standard Deviation of S	39.68
Standardized Value of S	1.033
Approximate p-value	0.151
Insufficient evidence to identify a significant trend at the specified level of significance.	
Fluoride-m-60	
General Statistics	
Number of Events Reported (m)	33
Number of Missing Events	5
Number or Reported Events Used	28
Number Values Reported (n)	33
Number Values Missing	5
Number Values Used	28
Minimum	1.3
Maximum	1.7
Mean	1.453
Geometric Mean	1.451
Median	1.4
Standard Deviation	0.0774
Coefficient of Variation	0.0533
Mann-Kendall Test	
M-K Test Value (S)	68
Critical Value (0.05)	1.645
Standard Deviation of S	45.42
Standardized Value of S	1.475
Approximate p-value	0.0701
Insufficient evidence to identify a significant trend at the specified level of significance.	
Fluoride-m-61	

Appendix B
Time Series Statistics

General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	3
Number or Reported Events Used	27
Number Values Reported (n)	30
Number Values Missing	3
Number Values Used	27
Minimum	1.3
Maximum	1.7
Mean	1.426
Geometric Mean	1.424
Median	1.4
Standard Deviation	0.0813
Coefficient of Variation	0.057
Mann-Kendall Test	
M-K Test Value (S)	23
Critical Value (0.05)	1.645
Standard Deviation of S	41.95
Standardized Value of S	0.524
Approximate p-value	0.3
Insufficient evidence to identify a significant trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/18/2024 4:18:56 PM
From File	BAM_2024Q2_proUCL_UPLOAD.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Lab_pH-m-59	
General Statistics	
Number of Events Reported (m)	31
Number of Missing Events	4
Number or Reported Events Used	27
Number Values Reported (n)	31
Number Values Missing	4

Appendix B
Time Series Statistics

Number Values Used	27
Minimum	7.5
Maximum	8.1
Mean	7.696
Geometric Mean	7.695
Median	7.7
Standard Deviation	0.142
Coefficient of Variation	0.0185
Mann-Kendall Test	
M-K Test Value (S)	12
Critical Value (0.05)	1.645
Standard Deviation of S	46.85
Standardized Value of S	0.235
Approximate p-value	0.407
Insufficient evidence to identify a significant trend at the specified level of significance.	
Lab_pH-m-60	
General Statistics	
Number of Events Reported (m)	33
Number of Missing Events	7
Number or Reported Events Used	26
Number Values Reported (n)	33
Number Values Missing	7
Number Values Used	26
Minimum	7.5
Maximum	8.2
Mean	7.692
Geometric Mean	7.69
Median	7.7
Standard Deviation	0.162
Coefficient of Variation	0.021
Mann-Kendall Test	
M-K Test Value (S)	-61
Critical Value (0.05)	-1.645
Standard Deviation of S	44.28
Standardized Value of S	-1.355

Appendix B
Time Series Statistics

Approximate p-value	0.0877
Insufficient evidence to identify a significant trend at the specified level of significance.	
Lab_pH-m-61	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	4
Number or Reported Events Used	26
Number Values Reported (n)	30
Number Values Missing	4
Number Values Used	26
Minimum	7.22
Maximum	8
Mean	7.67
Geometric Mean	7.668
Median	7.7
Standard Deviation	0.157
Coefficient of Variation	0.0205
Mann-Kendall Test	
M-K Test Value (S)	9
Critical Value (0.05)	1.645
Standard Deviation of S	44.28
Standardized Value of S	0.181
Approximate p-value	0.428
Insufficient evidence to identify a significant trend at the specified level of significance.	
	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/23/2024 8:54:53 PM
From File	BAM_2024Q2_proUCL_UPLOAD.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Sulfate-m-59	

Appendix B
Time Series Statistics

General Statistics	
Number of Events Reported (m)	31
Number of Missing Events	2
Number or Reported Events Used	29
Number Values Reported (n)	31
Number Values Missing	2
Number Values Used	29
Minimum	330
Maximum	430
Mean	353.4
Geometric Mean	353
Median	350
Standard Deviation	19.69
Coefficient of Variation	0.0557
Mann-Kendall Test	
M-K Test Value (S)	88
Critical Value (0.05)	1.645
Standard Deviation of S	50.27
Standardized Value of S	1.731
Approximate p-value	0.0418
Statistically significant evidence of an increasing trend at the specified level of significance.	
Sulfate-m-60	
General Statistics	
Number of Events Reported (m)	33
Number of Missing Events	4
Number or Reported Events Used	29
Number Values Reported (n)	33
Number Values Missing	4
Number Values Used	29
Minimum	330
Maximum	450
Mean	362.4
Geometric Mean	361.5
Median	350
Standard Deviation	26.68
Coefficient of Variation	0.0736

Appendix B
Time Series Statistics

Mann-Kendall Test	
M-K Test Value (S)	37
Critical Value (0.05)	1.645
Standard Deviation of S	51.35
Standardized Value of S	0.701
Approximate p-value	0.242
Insufficient evidence to identify a significant trend at the specified level of significance.	
Sulfate-m-61	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	2
Number or Reported Events Used	28
Number Values Reported (n)	30
Number Values Missing	2
Number Values Used	28
Minimum	330
Maximum	450
Mean	361.4
Geometric Mean	360.7
Median	360
Standard Deviation	24.75
Coefficient of Variation	0.0685
Mann-Kendall Test	
M-K Test Value (S)	-21
Critical Value (0.05)	-1.645
Standard Deviation of S	49.18
Standardized Value of S	-0.407
Approximate p-value	0.342
Insufficient evidence to identify a significant trend at the specified level of significance.	
Mann-Kendall Trend Test Analysis	
User Selected Options	
Date/Time of Computation	ProUCL 5.19/23/2024 9:02:32 PM
From File	BAM_2024Q2_proUCL_UPLOAD.xls

Appendix B
Time Series Statistics

Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Total Dissolved Solids-m-59	
General Statistics	
Number of Events Reported (m)	31
Number of Missing Events	3
Number or Reported Events Used	28
Number Values Reported (n)	31
Number Values Missing	3
Number Values Used	28
Minimum	2300
Maximum	2900
Mean	2718
Geometric Mean	2715
Median	2700
Standard Deviation	124.9
Coefficient of Variation	0.0459
Mann-Kendall Test	
M-K Test Value (S)	23
Critical Value (0.05)	1.645
Standard Deviation of S	47.14
Standardized Value of S	0.467
Approximate p-value	0.32

Insufficient evidence to identify a significant trend at the specified level of significance.

Total Dissolved Solids-m-60	
General Statistics	
Number of Events Reported (m)	33
Number of Missing Events	3
Number or Reported Events Used	30
Number Values Reported (n)	33
Number Values Missing	3
Number Values Used	30
Minimum	2200

Appendix B
Time Series Statistics

Maximum	4200
Mean	2870
Geometric Mean	2853
Median	2800
Standard Deviation	340.5
Coefficient of Variation	0.119
Mann-Kendall Test	
M-K Test Value (S)	31
Critical Value (0.05)	1.645
Standard Deviation of S	52.49
Standardized Value of S	0.572
Approximate p-value	0.284
Insufficient evidence to identify a significant trend at the specified level of significance.	
Total Dissolved Solids-m-61	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	1
Number or Reported Events Used	29
Number Values Reported (n)	30
Number Values Missing	1
Number Values Used	29
Minimum	2300
Maximum	3800
Mean	2848
Geometric Mean	2839
Median	2800
Standard Deviation	241.5
Coefficient of Variation	0.0848
Mann-Kendall Test	
M-K Test Value (S)	19
Critical Value (0.05)	1.645
Standard Deviation of S	51.71
Standardized Value of S	0.348
Approximate p-value	0.364

Appendix B
Time Series Statistics

Insufficient evidence to identify a significant trend at the specified level of significance.								

ATTACHMENT B

BAM CCR DETECTION MONITORING BACKGROUND THRESHOLD VALUES UPDATE – OCTOBER 2024 –

GEOSCIENCE CONSULTING STRATEGIES LLC

Technical Memorandum

To: Maren Henley, PE
WSP USA Environment & Infrastructure Inc.

From: Carla Landrum, PhD, PG
Geoscience Consulting Strategies LLC

Date: October 14, 2024

Subject: **Memorandum for File**
BAM CCR Detection Monitoring Background Threshold Values Update
October 2024
Arizona Public Service Company Cholla Power Plant – Navajo County, Arizona

1.0 INTRODUCTION

This Memorandum for File (Memo) documents updates to the Background Threshold Values (BTV) for detection monitoring (i.e., Appendix III constituents) groundwater constituents associated with the Bottom Ash Monofill (BAM) located at the Arizona Public Service Company (APS) Cholla Power Plant (Cholla) in Navajo County, Arizona. This routine update was completed by Geoscience Consulting Strategies LLC in accordance with the *Statistical Data Analysis Work Plan* (SDAWP) for the Cholla Power Plant (WSP USA Environment & Infrastructure Inc. [WSP], 2023).

2.0 DATA INPUTS

The data inputs for this round of BTV updates are shown in Appendix A. The dates shown in Table 1 reflect the sampling period for each Appendix III constituent. The BAM groundwater detection monitoring network consists of one background well (i.e., M-54) and three downgradient compliance wells (i.e., M-59, M-60, and M-61).

3.0 METHODS

The BTVs represent an Upper Prediction Limit (UPL) calculation. The type of UPL selected takes into account the data distribution characteristics (i.e., parametric versus non-parametric) and spatial heterogeneity (i.e., interwell versus intrawell), if present, within the groundwater monitoring network.

The methods and rationale for calculating and updating UPLs, and their respective resampling strategies, are detailed in the Cholla SDAWP (WSP, 2023) and several technical memos (see Wood, 2021; Wood, 2019a; Wood, 2019b). Specific to compliance monitoring wells M-60 and M-61, intrawell UPLs were deemed appropriate for fluoride, as documented in the 2019 Alternative Source Demonstration (2019 ASD) for the BAM (Wood, 2019). The 2019 ASD declared spatial heterogeneity as the basis for the intrawell UPL calculation.

Because the UPLs are a data-driven calculation, it is important to update the (inter- and intrawell) BTVs over time as new groundwater monitoring data are acquired. Updates will improve the representativeness,

accuracy and precision of the UPLs. In general, background limits should be updated periodically until the groundwater sample data are representative of the intrinsic temporal variations in groundwater conditions (WSP, 2023) and the sample number produces an adequate statistical power.

4.0 RESULTS

Table 1 shows the updated interwell BTVs for boron, calcium, chloride, lab pH, sulfate, fluoride (i.e., M-59) and total dissolved solids (TDS). For these constituents, the BTV represents either an interwell parametric or non-parametric UPL (see Sections 3.0 and 4.3.1 of the Cholla SDAWP [WSP, 2023]) with an associated resampling strategy.

Table 1 shows the updated intrawell non-parametric UPL BTVs for fluoride at sampling locations M-60 and M-61 with an associated resampling strategy.

The type of UPL (i.e., non-parametric or parametric) was selected based on data-driven exploratory data analysis outputs (see Appendix B) and statistical performance standards, as outlined in Sections 2.0 and 4.4 of the Cholla SDAWP (WSP, 2023), respectively.

Updates to the resampling strategies were made to achieve, at minimum, to achieve a 95% confidence level and 'good' statistical power, as defined by the US EPA Unified Guidance (US EPA, 2009).

Changes in the UPL values over time are expected and can result from changes in the sample variance over time and the type of UPL method used, for example. In all, the BTVs either remained constant or increased, depending on the constituent shown in Table 1. The increase in BTVs for sulfate, chloride, pH and boron might be due to the visible increase in the sample variance over time, which is also called heteroscedasticity (see time series plots in Appendix B). In these cases, heteroscedasticity likely results from changes in sampling frequency over time, where prior to October 17, 2017 there was a short and variable sampling frequency (i.e., biweekly to quarterly; mainly attributed to CCR Rule sampling requirements) whereas after October 17, 2017 the sampling frequency became longer and more consistent (i.e., semiannual, as prescribed under the groundwater monitoring program). As the sampling frequency became longer, the sample variance increased, which can be anticipated as the sample data become less temporally dependent or related to one another.

Specific to pH and TDS, the BTV determination transitioned to the non-parametric UPL, as shown in Table 1. In cases where the non-parametric UPL is used, the UPL represents the maximum concentration value, which in this case proved higher than its preceding parametric UPLs.

For boron and calcium, the temporal trends are no longer statistically significant ($p<0.05$) and the updated BTV resorts to the nonparametric UPL for calcium and the parametric UPL for boron. The updated UPLs for boron and calcium increased slightly, which might result from increased heteroscedasticity in the sample data over time and a change in the maximum sample concentration value since the last BTV calculation, respectively.

The nonparametric UPL calculation held constant for chloride and fluoride. The maximum sample concentration did not change for fluoride for both the intra- and interwell non-parametric UPLs. The maximum sample concentration for chloride increased from 1,600 milligrams per liter to 1,700 milligrams per liter.

5.0 RECOMMENDATIONS

The Cholla SDAWP (WSP, 2023) recommends updating BTVs periodically and provides a 2-year update frequency as a general example. Based on the results herein, it is recommended that future BTV updates be made at a lower frequency (e.g. 3-4 years). This recommendation is made considering the statistical power and level of confidence achieved for the current round of BTV updates. This recommendation also remains consistent with the period(s) spanning from the preceding BTV updates, which occurred in spring and fall 2021 for interwell BTVs and intrawell BTVs, respectively.

The laboratory should achieve reporting limits below the BTVs and maintain a constant reporting limit for each analyte over time for all monitoring wells – background and compliance.

6.0 REFERENCES

WSP USA Environment & Infrastructure Inc. [WSP], 2023, 2023. Statistical Data Analysis Work Plan. Coal Combustion Residual Rule Groundwater Monitoring System Compliance. Cholla Power Plant. Navajo County, Arizona. Prepared for Arizona Public Service. January 30, 2023.

Wood, 2021. *CCR Groundwater Detection Monitoring Statistical Evaluation of October 2020 & Preceding Bottom Ash Monofill Data*. Arizona Public Service Cholla Power Plant – Navajo County, Arizona. March 31, 2021.

Wood, 2019a. *Alternative Source Demonstration for Fluoride at the BAM.* Arizona Public Service Cholla Power Plant. Navajo County, Arizona. August 14, 2019.

Wood, 2019b. *CCR Groundwater Detection Monitoring Statistical Analysis and Results for the Bottom Ash Monofill. Appendix III Constituent Data Collected through April 2019.* Arizona Public Service Cholla Power Plant. Navajo County, Arizona. October 15, 2019.

United States Environmental Protection Agency (US EPA), 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007. Environmental Protection Agency Office of Resource Conservation and Recovery.

ATTACHMENTS

Table 1 – BTVs for the Cholla BAM

Appendix A – ProUCL Data Upload Table
Appendix B – ProUCL EDA Output Files

TABLES

Table 1
BTVs for the Cholla BAM
Appendix III Statistical Analysis

Background Well	Dates Corresponding to Data Used to Derive UPL	Constituent	Interwell BTVs (Calculation Method)	Units	Resampling Strategy[1]
M-54	12/3/2015-4/30/2024	Boron	0.56 (P-UPL)	mg/L	1 of 2
M-54	12/3/2015-4/30/2024	Calcium	110 (NP-UPL)	mg/L	1 of 3
M-54	12/3/2015-4/30/2024	Chloride	1,700 (NP-UPL)	mg/L	1 of 3
M-54	12/3/2015-4/30/2024	Fluoride	1.8 (NP-UPL)[2]	mg/L	1 of 3
M-54	12/3/2015-4/30/2024	pH (upper limit)	8.2 (NP-UPL)	SU	1 of 3
M-54	12/3/2015-4/30/2024	pH (lower limit)	7.3 (NP-LPL)	SU	1 of 3
M-54	12/3/2015-4/30/2024	Sulfate	420 (NP-UPL)	mg/L	1 of 3
M-54	12/3/2015-4/30/2024	TDS	3300 (NP-UPL)	mg/L	1 of 3

Compliance Well	Dates Corresponding to Data Used to Derive UPL	Constituent	Intrawell BTVs (Calculation Method)	Units	Resampling Strategy[1]
M-60	12/3/2015-5/28/2024	Fluoride	1.7 (NP-UPL)	mg/L	1 of 3
M-61	12/3/2015-5/28/2024	Fluoride	1.6 (NP-UPL)	mg/L	1 of 3

Notes:
BAM = Bottom Ash Pond
BTV = background threshold value
LPL = lower prediction limit
mg/L = milligrams per liter
NP = Non Parametric
P = Parametric
SU = standard units
TDS = total dissolved solids
UPL(T) = upper predicition limit (trend)

[1] A 1 of 2 resampling strategy is in place for interwell parametric prediction limits. A 1 of 3 resampling strategy is in place for non-parametric prediction limits and the limit represents the maximum concentration value of the data set (i.e., first order statistic). BTVs were updated in October 2024.
[2] Interwell BTV for flouride is applicable to M-59.

APPENDIX A

PROUCL DATA UPLOAD TABLE

Well	Sample Date	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride
M-59	12/3/2015	0.5	1	87	1	1300	1	1.3
M-59	3/10/2016	0.48	1	85	1	1400	1	1.3
M-59	5/20/2016	0.49	1	86	1	1400	1	1.4
M-59	8/27/2016	0.5	1	89	1	1400	1	1.4
M-59	9/22/2016	0.5	1	88	1	1300	1	1.4
M-59	2/22/2017	0.48	1	86	1	1200	1	1.3
M-59	4/11/2017	0.49	1	90	1	1400	1	1.3
M-59	4/24/2017	0.52	1	89	1	1300	1	1.4
M-59	5/19/2017	0.5	1	93	1	1400	1	1.4
M-59	5/25/2017	0.5	1	88	1	1300	1	1.4
M-59	6/29/2017	0.49	1	84	1	1400	1	1.5
M-59	7/29/2017	0.53	1	92	1	1300	1	1.5
M-59	9/5/2017	0.51	1	90	1	1300	1	1.4
M-59	12/7/2017	0.49	1	86	1	1400	1	1.4
M-59	5/25/2018	0.49	1	85	1	1400	1	1.4
M-59	10/26/2018	0.48	1	88	1	1400	1	1.4
M-59	4/9/2019	0.5	1	86	1	1200	1	1.4
M-59	10/23/2019	0.48	1	84	1	1400	1	1.3
M-59	5/7/2020	0.5	1	89	1	1200	1	1.8
M-59	10/21/2020	0.48	1	85	1	1300	1	1.4
M-59	1/13/2021							
M-59	4/16/2021	0.49	1	87	1	1300	1	1.4
M-59	10/24/2021	0.49	1	84	1	1300	1	1.4
M-59	11/19/2021							
M-59	5/13/2022	0.5	1	89	1	1200	1	1.4
M-59	8/30/2022							
M-59	10/19/2022	0.48	1	79	1	1200	1	1.4
M-59	4/12/2023	0.51	1	93	1	1400	1	1.4
M-59	11/21/2023	0.53	1	90	1	1200	1	1.3
M-59	4/30/2024	0.51	1	86	1	1700	1	1.4
M-59	7/1/2024					1300	1	
M-60	12/3/2015	0.54	1	88	1	1400	1	1.3
M-60	3/9/2016	0.5	1	86	1	1400	1	1.4
M-60	5/20/2016	0.5	1	89	1	1400	1	1.5
M-60	8/27/2016	0.52	1	90	1	1400	1	1.5
M-60	9/22/2016	0.51	1	88	1	1300	1	1.4
M-60	2/22/2017	0.52	1	91	1	1300	1	1.4
M-60	4/11/2017	0.48	1	90	1	1400	1	1.4
M-60	4/24/2017	0.53	1	86	1	1400	1	1.4
M-60	5/19/2017	0.53	1	92	1	1400	1	1.4
M-60	5/25/2017	0.51	1	86	1	1300	1	1.4
M-60	6/29/2017	0.51	1	84	1	1500	1	1.5
M-60	7/29/2017	0.53	1	89	1	1400	1	1.5
M-60	9/5/2017	0.53	1	90	1	1400	1	1.5
M-60	12/7/2017	0.51	1	86	1	1500	1	1.4

Well	Sample Date	D_Fluoride	Lab_pH	D_Lab_pH	Sulfate	D_Sulfate	TDS	D_TDS
M-59	12/3/2015	1	7.53	1	340	1	2700	1
M-59	3/10/2016	1	7.57	1	350	1	2700	1
M-59	5/20/2016	1			340	1	2700	1
M-59	8/27/2016	1	7.6	1	350	1	2700	1
M-59	9/22/2016	1	7.8	1	340	1	2900	1
M-59	2/22/2017	1	7.8	1	330	1	2800	1
M-59	4/11/2017	1	8.1	1	350	1	2800	1
M-59	4/24/2017	1	7.7	1	350	1	2800	1
M-59	5/19/2017	1	7.8	1	360	1	2700	1
M-59	5/25/2017	1	7.6	1	350	1	2700	1
M-59	6/29/2017	1	7.8	1	370	1	2500	1
M-59	7/29/2017	1	7.6	1	340	1	2800	1
M-59	9/5/2017	1	7.7	1	360	1	2700	1
M-59	12/7/2017	1	7.7	1	350	1	2700	1
M-59	5/25/2018	1	7.5	1	350	1	2700	1
M-59	10/26/2018	1	7.6	1	360	1	2500	1
M-59	4/9/2019	1	7.9	1	330	1	2700	1
M-59	10/23/2019	1	7.5	1	350	1	2800	1
M-59	5/7/2020	1	7.7	1	350	1	2800	1
M-59	10/21/2020	1	7.5	1	340	1	2700	1
M-59	1/13/2021							
M-59	4/16/2021	1	7.8	1	350	1	2800	1
M-59	10/24/2021	1	7.7	1	400	1	2300	1
M-59	11/19/2021				360	1	2600	1
M-59	5/13/2022	1	7.9	1	350	1	2900	1
M-59	8/30/2022		7.6	1				
M-59	10/19/2022	1	7.6	1	350	1	2700	1
M-59	4/12/2023	1	7.8	1	360	1	2800	1
M-59	11/21/2023	1	7.7	1	340	1	2800	1
M-59	4/30/2024	1	7.7	1	430	1	2800	1
M-59	7/1/2024				350	1		
M-60	12/3/2015	1	7.56	1	350	1	2800	1
M-60	3/9/2016	1	7.83	1	350	1	2800	1
M-60	5/20/2016	1			350	1	2800	1
M-60	8/27/2016	1	7.5	1	360	1	2800	1
M-60	9/22/2016	1	7.8	1	350	1	3000	1
M-60	2/22/2017	1	7.8	1	340	1	2800	1
M-60	4/11/2017	1	8	1	370	1	2900	1
M-60	4/24/2017	1	7.8	1	350	1	2700	1
M-60	5/19/2017	1	7.7	1	360	1	2800	1
M-60	5/25/2017	1	7.7	1	350	1	2800	1
M-60	6/29/2017	1	7.8	1	440	1	2700	1
M-60	7/29/2017	1	7.6	1	370	1	2800	1
M-60	9/5/2017	1	7.6	1	360	1	2800	1
M-60	12/7/2017	1	7.6	1	360	1	2900	1

Well	Sample Date	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride
M-60	5/25/2018	0.5	1	83	1	1400	1	1.5
M-60	10/26/2018	0.49	1	88	1	1400	1	1.4
M-60	4/9/2019	0.51	1	84	1	1300	1	1.4
M-60	10/22/2019	0.5	1	85	1	1400	1	1.4
M-60	5/7/2020	0.5	1	88	1	1200	1	1.7
M-60	10/21/2020	0.48	1	83	1	1400	1	1.5
M-60	1/13/2021							
M-60	4/16/2021	0.49	1	85	1	1300	1	1.5
M-60	7/7/2021							
M-60	10/24/2021	0.49	1	85	1	1300	1	1.5
M-60	11/19/2021							
M-60	5/13/2022	0.52	1	89	1	1400	1	1.57
M-60	8/31/2022							
M-60	10/20/2022	0.48	1	80	1	1300	1	1.5
M-60	1/26/2023					1400	1	1.5
M-60	5/10/2023	0.51	1	79	1	1400	1	1.4
M-60	11/20/2023	0.53	1	88	1	1300	1	1.4
M-60	5/28/2024	0.58	1	96	1	1200	1	1.4
M-60	7/1/2024	0.52	1					
M-61	12/3/2015	0.51	1	90	1	1400	1	1.3
M-61	3/10/2016	0.49	1	90	1	1400	1	1.4
M-61	5/20/2016	0.49	1	89	1	1400	1	1.4
M-61	8/27/2016	0.5	1	90	1	1400	1	1.5
M-61	9/22/2016	0.5	1	90	1	1300	1	1.4
M-61	2/22/2017	0.5	1	92	1	1100	1	1.4
M-61	4/11/2017	0.5	1	93	1	1700	1	1.4
M-61	4/24/2017	0.52	1	88	1	1400	1	1.4
M-61	5/19/2017	0.5	1	92	1	1400	1	1.3
M-61	5/25/2017	0.51	1	92	1	1400	1	1.4
M-61	6/29/2017	0.5	1	86	1	1500	1	1.5
M-61	7/29/2017	0.52	1	94	1	1300	1	1.5
M-61	9/5/2017	0.5	1	91	1	1400	1	1.5
M-61	12/7/2017	0.49	1	88	1	1500	1	1.4
M-61	5/25/2018	0.48	1	87	1	1400	1	1.5
M-61	10/26/2018	0.48	1	91	1	1400	1	1.4
M-61	4/9/2019	0.5	1	88	1	1300	1	1.4
M-61	10/22/2019	0.48	1	87	1	1400	1	1.4
M-61	5/7/2020	0.51	1	93	1	1300	1	1.6
M-61	10/21/2020	0.48	1	88	1	1400	1	1.4
M-61	1/13/2021							
M-61	4/16/2021	0.49	1	91	1	1300	1	1.5
M-61	10/24/2021	0.49	1	89	1	1400	1	1.4
M-61	11/19/2021							
M-61	5/13/2022	0.49	1	90	1	1200	1	1.4
M-61	8/31/2022							

Well	Sample Date	D_Fluoride	Lab_pH	D_Lab_pH	Sulfate	D_Sulfate	TDS	D_TDS
M-60	5/25/2018	1	7.5	1	350	1	2800	1
M-60	10/26/2018	1	7.7	1	350	1	2600	1
M-60	4/9/2019	1	7.7	1	350	1	2800	1
M-60	10/22/2019	1	7.6	1	360	1	2800	1
M-60	5/7/2020	1	7.7	1	350	1	2900	1
M-60	10/21/2020	1	7.5	1	340	1	2900	1
M-60	1/13/2021							
M-60	4/16/2021	1	7.8	1	340	1	4200	1
M-60	7/7/2021						2700	1
M-60	10/24/2021	1	7.6	1	450	1	2900	1
M-60	11/19/2021				370	1	2200	1
M-60	5/13/2022	1	8.2	1	360	1	3800	1
M-60	8/31/2022						2900	1
M-60	10/20/2022	1	7.5	1	400	1	2700	1
M-60	1/26/2023	1			380	1		
M-60	5/10/2023	1	7.7	1	370	1	2800	1
M-60	11/20/2023	1	7.6	1	350	1	2900	1
M-60	5/28/2024	1	7.6	1	330	1	2800	1
M-60	7/1/2024							
M-61	12/3/2015	1	7.22	1	350	1	2800	1
M-61	3/10/2016	1	7.59	1	340	1	2800	1
M-61	5/20/2016	1			350	1	2800	1
M-61	8/27/2016	1	7.5	1	360	1	2900	1
M-61	9/22/2016	1	7.9	1	350	1	3000	1
M-61	2/22/2017	1	7.8	1	340	1	2700	1
M-61	4/11/2017	1	8	1	420	1	3000	1
M-61	4/24/2017	1	7.7	1	360	1	2700	1
M-61	5/19/2017	1	7.8	1	370	1	2800	1
M-61	5/25/2017	1	7.7	1	370	1	2800	1
M-61	6/29/2017	1	7.8	1	380	1	2700	1
M-61	7/29/2017	1	7.6	1	360	1	2900	1
M-61	9/5/2017	1	7.6	1	360	1	2800	1
M-61	12/7/2017	1	7.6	1	360	1	2900	1
M-61	5/25/2018	1	7.5	1	390	1	2800	1
M-61	10/26/2018	1	7.5	1	360	1	2600	1
M-61	4/9/2019	1	7.7	1	340	1	2800	1
M-61	10/22/2019	1	7.8	1	350	1	2700	1
M-61	5/7/2020	1	7.7	1	350	1	3000	1
M-61	10/21/2020	1	7.5	1	350	1	2700	1
M-61	1/13/2021							
M-61	4/16/2021	1	7.8	1	340	1	2900	1
M-61	10/24/2021	1	7.6	1	450	1	3200	1
M-61	11/19/2021				370	1	2300	1
M-61	5/13/2022	1	7.6	1	360	1	3800	1
M-61	8/31/2022						2900	1

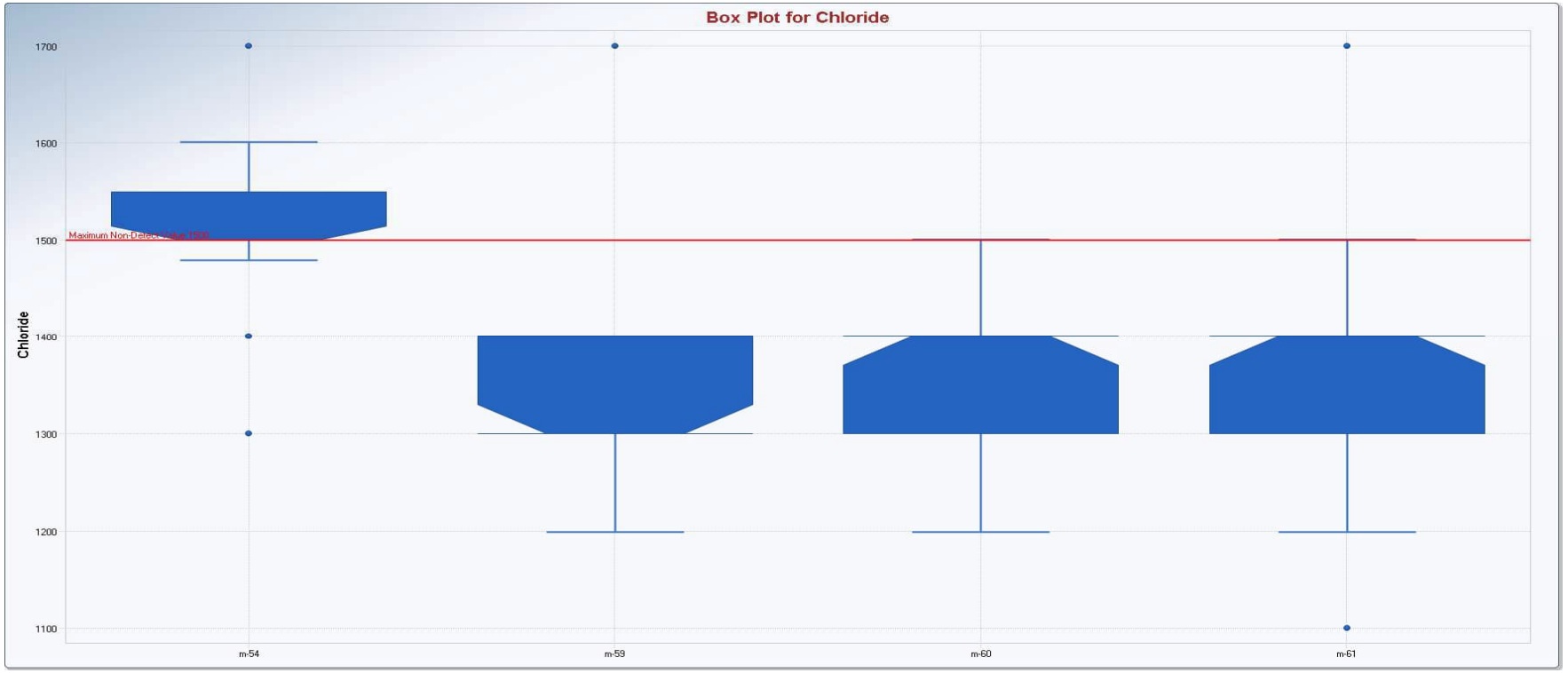
Well	Sample Date	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride
M-61	10/19/2022	0.49	1	86	1	1300	1	1.5
M-61	4/12/2023	0.51	1	97	1	1400	1	1.4
M-61	11/20/2023	0.53	1	93	1	1300	1	1.3
M-61	4/30/2024	0.51	1	90	1	1400	1	1.4
M-54	12/3/2015	0.52	1	100	1	1500	1	1.2
M-54	3/10/2016	0.53	1	100	1	1600	1	1.3
M-54	5/20/2016	0.51	1	100	1	1500	1	1.4
M-54	8/27/2016	0.53	1	110	1	1600	1	1.4
M-54	9/22/2016	0.52	1	99	1	1400	1	1.3
M-54	2/21/2017	0.52	1	100	1	1300	1	1.3
M-54	4/11/2017	0.51	1	100	1	1500	1	1.3
M-54	4/24/2017	0.53	1	95	1	1500	1	1.3
M-54	5/19/2017	0.5	1	99	1	1600	1	1.3
M-54	5/25/2017	0.52	1	100	1	1500	1	1.4
M-54	6/29/2017	0.51	1	97	1	1600	1	1.4
M-54	7/29/2017	0.56	1	100	1	1500	1	1.4
M-54	9/5/2017	0.55	1	100	1	1500	1	1.4
M-54	12/7/2017	0.51	1	97	1	1600	1	1.4
M-54	5/25/2018	0.5	1	96	1	1500	1	1.4
M-54	10/26/2018	0.5	1	100	1	1500	1	1.4
M-54	4/9/2019	0.53	1	98	1	1400	1	1.3
M-54	10/22/2019	0.49	1	95	1	1500	1	1.3
M-54	5/7/2020	0.51	1	98	1	1400	1	1.8
M-54	10/21/2020	0.48	1	92	1	1500	1	1.3
M-54	4/16/2021	0.52	1	100	1	1700	1	1.4
M-54	10/24/2021	0.5	1	96	1	1500	1	1.4
M-54	11/19/2021							
M-54	5/13/2022	0.5	1	99	1	1480	1	1.5
M-54	8/31/2022							
M-54	10/20/2022	0.5	1	93	1	1500	1	1.4
M-54	1/26/2023					1600	1	1.4
M-54	4/13/2023	0.53	1	100	1	1500	1	1.4
M-54	11/21/2023	0.55	1	100	1	1400	1	1.3
M-54	4/30/2024	0.58	1	110		1500		1.3

Well	Sample Date	D_Fluoride	Lab_pH	D_Lab_pH	Sulfate	D_Sulfate	TDS	D_TDS
M-61	10/19/2022	1	7.7	1	360	1	2800	1
M-61	4/12/2023	1	7.8	1	350	1	2900	1
M-61	11/20/2023	1	7.7	1	350	1	2900	1
M-61	4/30/2024	1	7.7	1	330	1	2700	1
M-54	12/3/2015	1	7.34	1	380	1	3000	1
M-54	3/10/2016	1	7.56	1	360	1	2900	1
M-54	5/20/2016	1			350	1	3000	1
M-54	8/27/2016	1	7.5	1	370	1	3100	1
M-54	9/22/2016	1	7.7	1	350	1	3200	1
M-54	2/21/2017	1	7.7	1	350	1	2900	1
M-54	4/11/2017	1	7.7	1	360	1	3100	1
M-54	4/24/2017	1	7.6	1	370	1	3000	1
M-54	5/19/2017	1	7.8	1	380	1	3200	1
M-54	5/25/2017	1	7.7	1	370	1	3200	1
M-54	6/29/2017	1	7.6	1	380	1	2900	1
M-54	7/29/2017	1	7.4	1	350	1	3100	1
M-54	9/5/2017	1	7.5	1	370	1	3100	1
M-54	12/7/2017	1	7.6	1	360	1	3000	1
M-54	5/25/2018	1	7.4	1	350	1	3000	1
M-54	10/26/2018	1	7.5	1	360	1	2900	1
M-54	4/9/2019	1	7.7	1	340	1	3100	1
M-54	10/22/2019	1	7.4	1	350	1	2900	1
M-54	5/7/2020	1	7.6	1	360	1	3100	1
M-54	10/21/2020	1	7.3	1	350	1	2900	1
M-54	4/16/2021	1	7.6	1	420	1	3300	1
M-54	10/24/2021	1	7.7	1	400	1	2700	1
M-54	11/19/2021				370	1	2300	1
M-54	5/13/2022	1	8.2	1	360	1	3100	1
M-54	8/31/2022		7.6	1			3100	1
M-54	10/20/2022	1	7.5	1	420	1	3100	1
M-54	1/26/2023	1			390	1		
M-54	4/13/2023	1	7.8	1	370	1	3100	1
M-54	11/21/2023	1	7.6	1	350	1	3100	1
M-54	4/30/2024		7.6		340		2900	

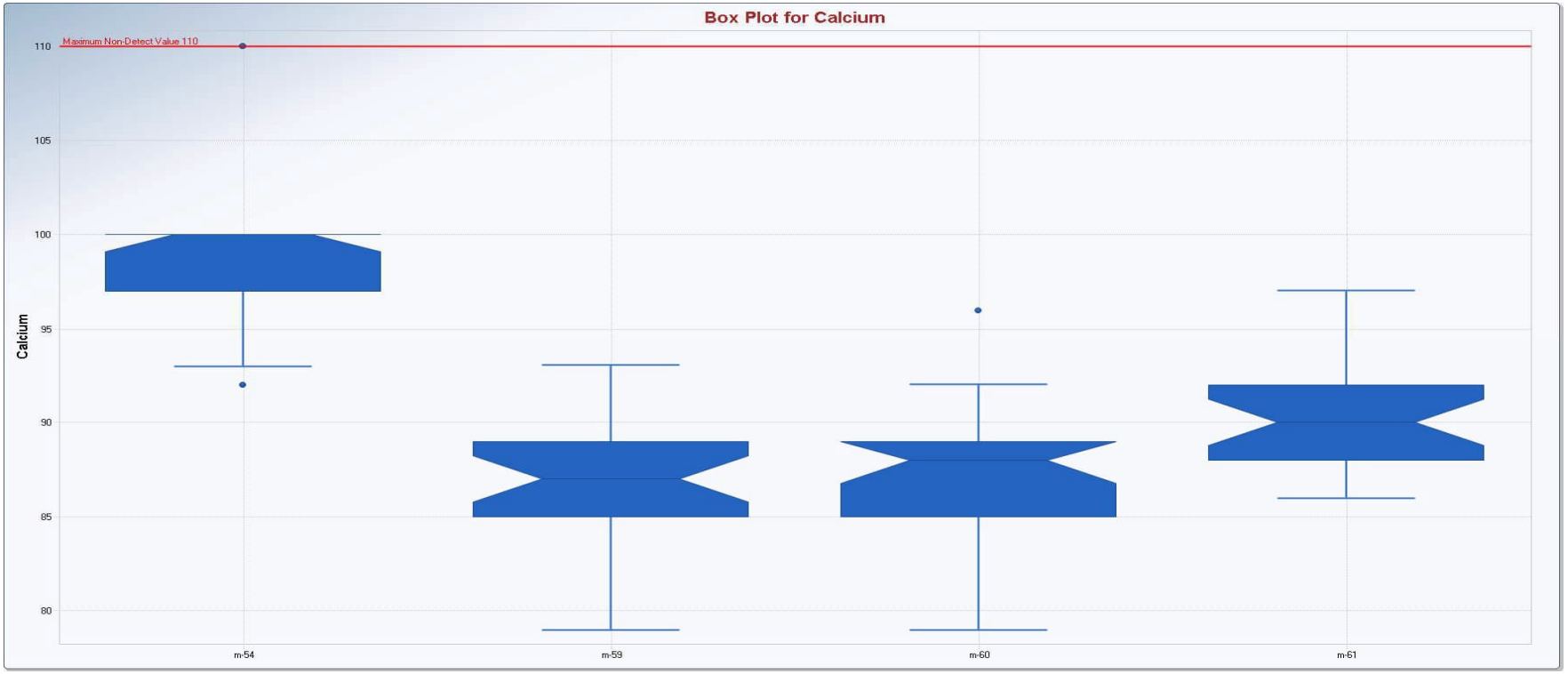
APPENDIX B

PROUCL EDA OUTPUT FILES

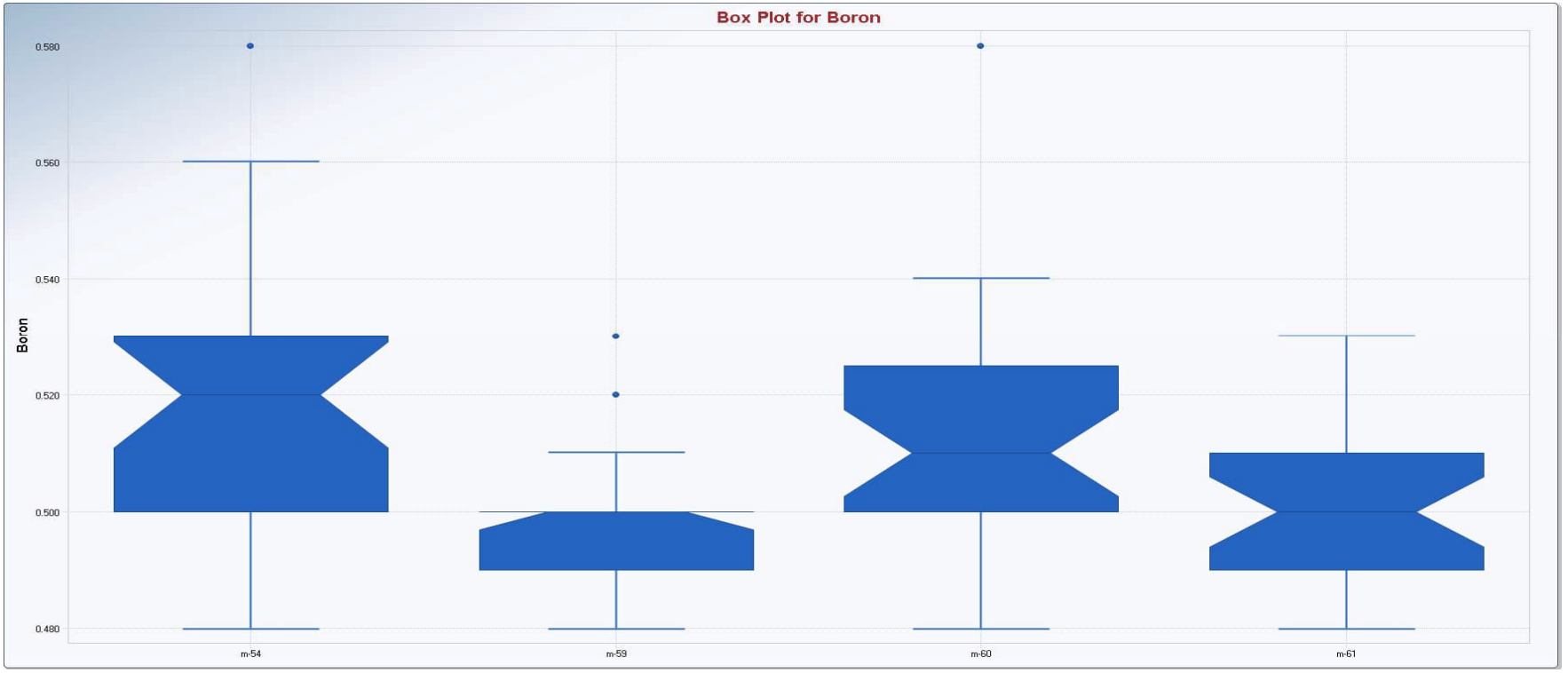
Appendix B
Box and Whisker Plots



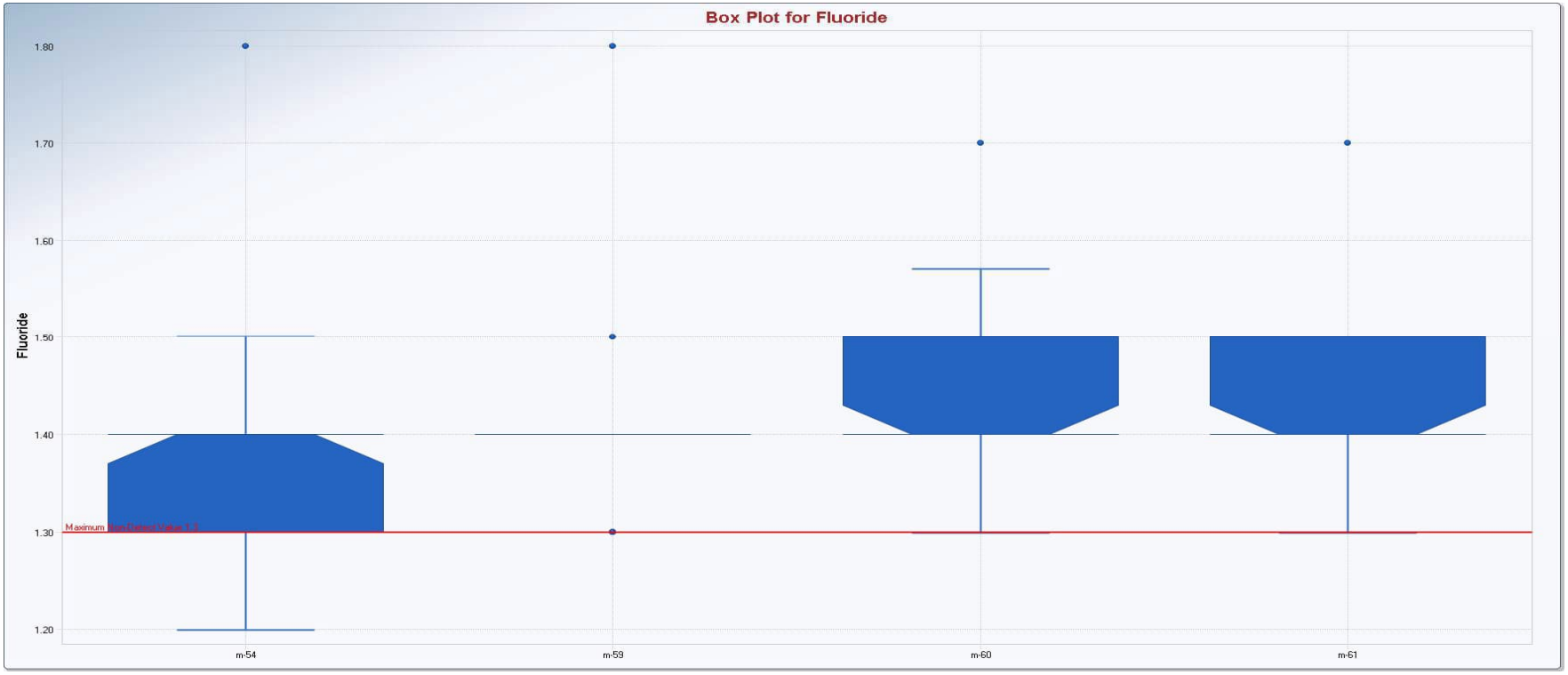
Appendix B
Box and Whisker Plots



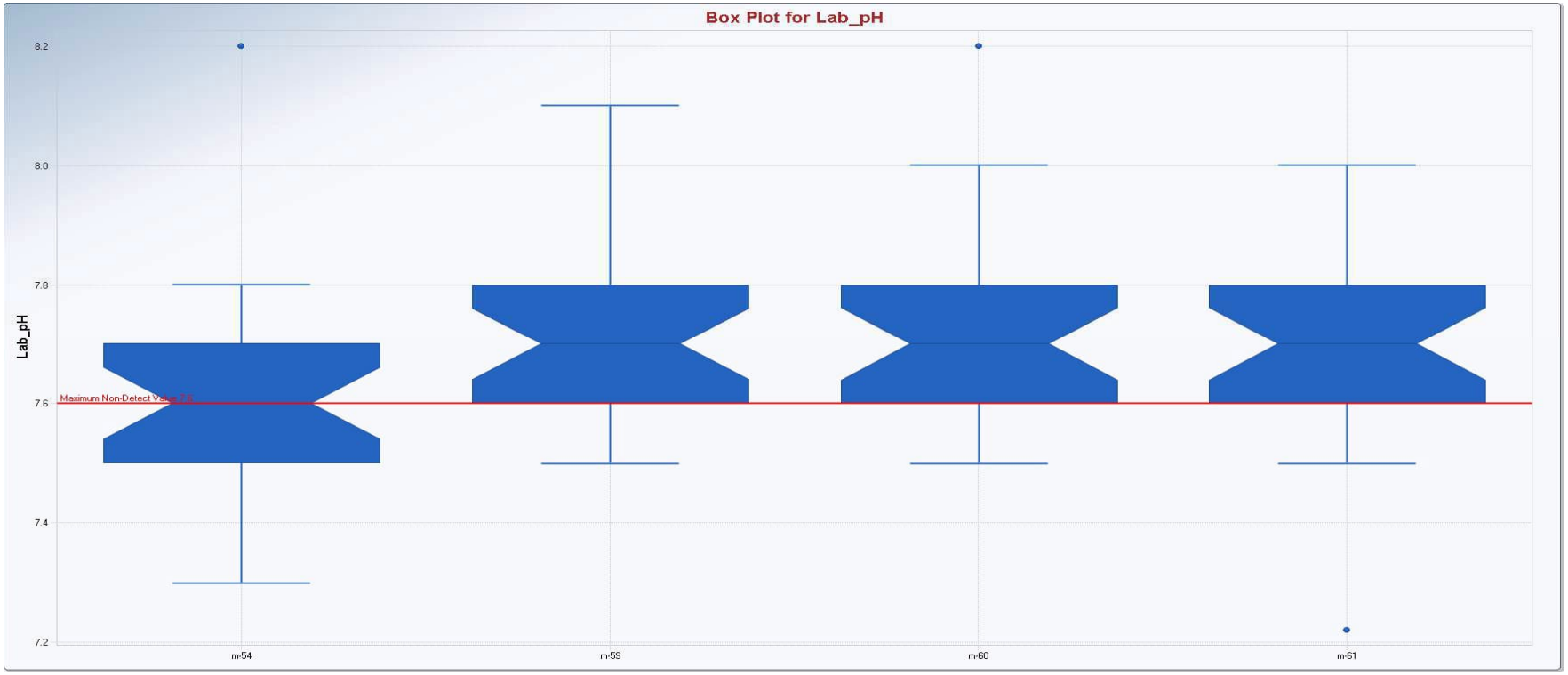
Appendix B
Box and Whisker Plots



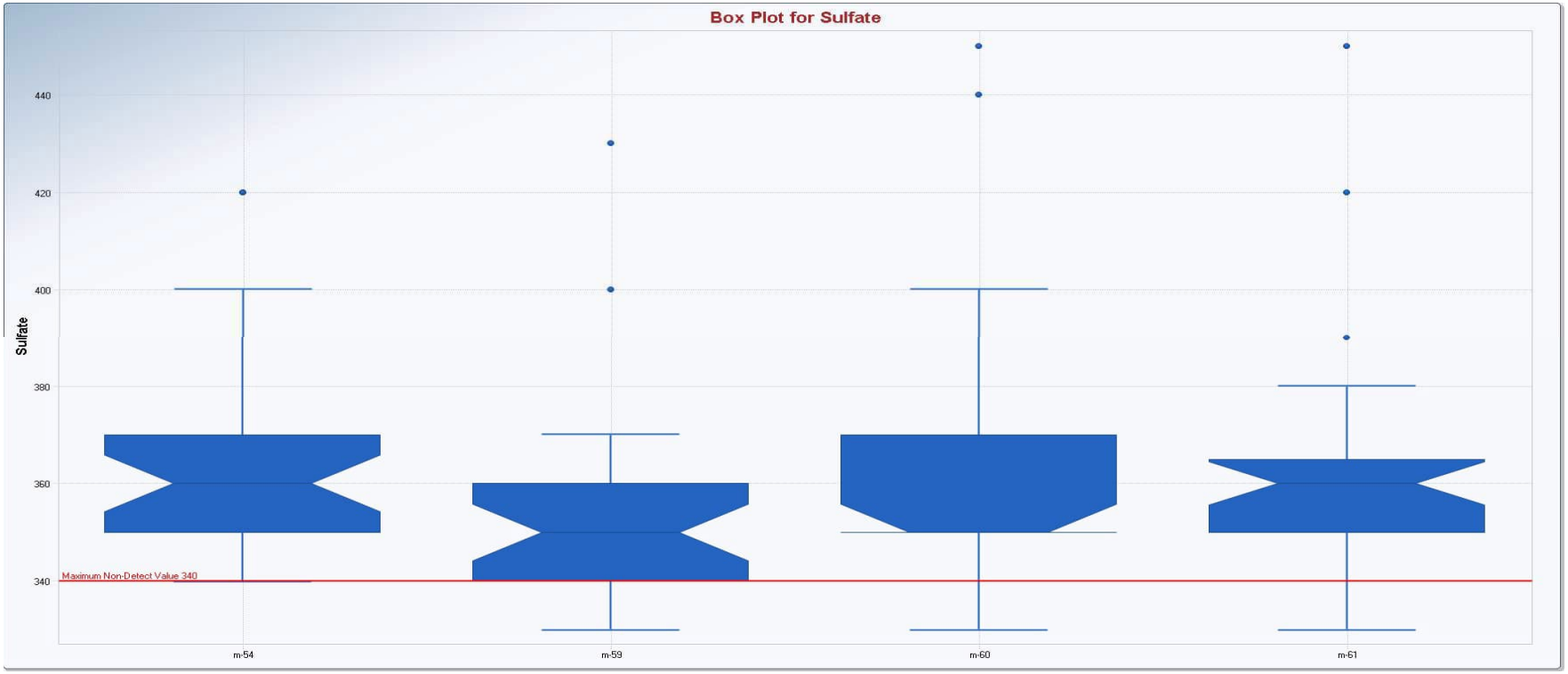
Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Goodness of Fit Statistics

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.19/26/2024 5:47:45 AM
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls
Full Precision	OFF
Confidence Coefficient	0.95

Boron (m-54)

Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	9
Minimum	0.48
Maximum	0.58
Mean of Raw Data	0.519
Standard Deviation of Raw Data	0.0222
Khat	577.1
Theta hat	8.9913E-4
Kstar	513
Theta star	0.00101
Mean of Log Transformed Data	-0.657
Standard Deviation of Log Transformed Data	0.0422

Normal GOF Test Results	
Correlation Coefficient R	0.962
Shapiro Wilk Test Statistic	0.932
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.0858
Lilliefors Test Statistic	0.161
Lilliefors Critical (0.05) Value	0.167

Data appear Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.967
A-D Test Statistic	0.679
A-D Critical (0.05) Value	0.744

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
K-S Test Statistic	0.152
K-S Critical(0.05) Value	0.168
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.967
Shapiro Wilk Test Statistic	0.942
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.151
Lilliefors Test Statistic	0.153
Lilliefors Critical (0.05) Value	0.167
Data appear Lognormal at (0.05) Significance Level	
Calcium (m-54)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	9
Minimum	92
Maximum	110
Mean of Raw Data	99.04
Standard Deviation of Raw Data	3.917
Khat	682.8
Theta hat	0.145
Kstar	606.9
Theta star	0.163
Mean of Log Transformed Data	4.595
Standard Deviation of Log Transformed Data	0.0387
Normal GOF Test Results	
Correlation Coefficient R	0.887
Shapiro Wilk Test Statistic	0.801
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	7.8220E-5
Lilliefors Test Statistic	0.329
Lilliefors Critical (0.05) Value	0.167

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.892
A-D Test Statistic	1.993
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.321
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.896
Shapiro Wilk Test Statistic	0.817
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	1.7037E-4
Lilliefors Test Statistic	0.32
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Chloride (m-54)	
Raw Statistics	
Number of Valid Observations	28
Number of Missing Observations	2
Number of Distinct Observations	6
Minimum	1300
Maximum	1700
Mean of Raw Data	1506
Standard Deviation of Raw Data	81.48
Khat	351.5
Theta hat	4.285
Kstar	313.9
Theta star	4.799

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
Mean of Log Transformed Data	7.316
Standard Deviation of Log Transformed Data	0.0545
Normal GOF Test Results	
Correlation Coefficient R	0.927
Shapiro Wilk Test Statistic	0.876
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	0.00295
Lilliefors Test Statistic	0.281
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.929
A-D Test Statistic	1.993
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.275
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.925
Shapiro Wilk Test Statistic	0.873
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	0.00244
Lilliefors Test Statistic	0.271
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-54)	
Raw Statistics	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
Number of Valid Observations	28
Number of Missing Observations	2
Number of Distinct Observations	5
Minimum	1.2
Maximum	1.8
Mean of Raw Data	1.371
Standard Deviation of Raw Data	0.105
Khat	195.4
Theta hat	0.00702
Kstar	174.5
Theta star	0.00786
Mean of Log Transformed Data	0.313
Standard Deviation of Log Transformed Data	0.0712
Normal GOF Test Results	
Correlation Coefficient R	0.811
Shapiro Wilk Test Statistic	0.693
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	4.6845E-7
Lilliefors Test Statistic	0.321
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.824
A-D Test Statistic	2.698
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.306
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.838
Shapiro Wilk Test Statistic	0.737
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	3.0066E-6

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
Lilliefors Test Statistic	0.301
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-60)	
Raw Statistics	
Number of Valid Observations	28
Number of Missing Observations	5
Number of Distinct Observations	5
Minimum	1.3
Maximum	1.7
Mean of Raw Data	1.453
Standard Deviation of Raw Data	0.0774
Khat	376.3
Theta hat	0.00386
Kstar	336
Theta star	0.00432
Mean of Log Transformed Data	0.372
Standard Deviation of Log Transformed Data	0.0521
Normal GOF Test Results	
Correlation Coefficient R	0.884
Shapiro Wilk Test Statistic	0.804
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	6.9608E-5
Lilliefors Test Statistic	0.287
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.891
A-D Test Statistic	2.519

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.291
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.89
Shapiro Wilk Test Statistic	0.816
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	1.2092E-4
Lilliefors Test Statistic	0.288
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-61)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	4
Minimum	1.3
Maximum	1.7
Mean of Raw Data	1.426
Standard Deviation of Raw Data	0.0813
Khat	332.3
Theta hat	0.00429
Kstar	295.4
Theta star	0.00483
Mean of Log Transformed Data	0.353
Standard Deviation of Log Transformed Data	0.0554
Normal GOF Test Results	
Correlation Coefficient R	0.871

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
Shapiro Wilk Test Statistic	0.78
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	2.8795E-5
Lilliefors Test Statistic	0.329
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.879
A-D Test Statistic	2.578
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.327
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.881
Shapiro Wilk Test Statistic	0.795
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	5.9980E-5
Lilliefors Test Statistic	0.323
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Lab_pH (m-54)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	9
Minimum	7.3
Maximum	8.2
Mean of Raw Data	7.6

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
Standard Deviation of Raw Data	0.178
Khat	1935
Theta hat	0.00393
Kstar	1720
Theta star	0.00442
Mean of Log Transformed Data	2.028
Standard Deviation of Log Transformed Data	0.0231
Normal GOF Test Results	
Correlation Coefficient R	0.934
Shapiro Wilk Test Statistic	0.893
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.00894
Lilliefors Test Statistic	0.175
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.939
A-D Test Statistic	0.809
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.175
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.94
Shapiro Wilk Test Statistic	0.902
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.0154
Lilliefors Test Statistic	0.171
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
Data do not follow a discernible distribution at (0.05) Level of Significance	
Sulfate (m-54)	
Raw Statistics	
Number of Valid Observations	29
Number of Missing Observations	1
Number of Distinct Observations	8
Minimum	340
Maximum	420
Mean of Raw Data	366.6
Standard Deviation of Raw Data	20.58
Khat	342
Theta hat	1.072
Kstar	306.7
Theta star	1.195
Mean of Log Transformed Data	5.903
Standard Deviation of Log Transformed Data	0.0545
Normal GOF Test Results	
Correlation Coefficient R	0.932
Shapiro Wilk Test Statistic	0.865
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	0.0013
Lilliefors Test Statistic	0.192
Lilliefors Critical (0.05) Value	0.161
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.939
A-D Test Statistic	1.191
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.183
K-S Critical(0.05) Value	0.162
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
Correlation Coefficient R	0.941
Shapiro Wilk Test Statistic	0.882
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	0.00333
Lilliefors Test Statistic	0.18
Lilliefors Critical (0.05) Value	0.161
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Total Dissolved Solids (m-54)	
Raw Statistics	
Number of Valid Observations	29
Number of Missing Observations	1
Number of Distinct Observations	7
Minimum	2300
Maximum	3300
Mean of Raw Data	3010
Standard Deviation of Raw Data	185.8
Khat	247.7
Theta hat	12.16
Kstar	222.1
Theta star	13.56
Mean of Log Transformed Data	8.008
Standard Deviation of Log Transformed Data	0.0663
Normal GOF Test Results	
Correlation Coefficient R	0.883
Shapiro Wilk Test Statistic	0.806
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	5.4743E-5
Lilliefors Test Statistic	0.207
Lilliefors Critical (0.05) Value	0.161
Data not Normal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	27
Gamma GOF Test Results	
Correlation Coefficient R	0.877
A-D Test Statistic	1.861
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.218
K-S Critical(0.05) Value	0.162
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.856
Shapiro Wilk Test Statistic	0.762
Shapiro Wilk Critical (0.05) Value	0.926
Approximate Shapiro Wilk P Value	6.4207E-6
Lilliefors Test Statistic	0.228
Lilliefors Critical (0.05) Value	0.161
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	

Appendix B
Outlier Statistics

Outlier Tests for Selected Uncensored Variables

User Selected Options	
Date/Time of Computation	ProUCL 5.19/26/2024 7:33:04 AM
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls
Full Precision	OFF

Rosner's Outlier Test for Boron (m-54)

Mean	**0.519**
Standard Deviation	**0.0222**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.519	0.0218	0.58	27	2.799	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Boron (m-59)

Mean	**0.497**
Standard Deviation	**0.0144**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.497	0.0141	0.53	12	2.339	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**

Rosner's Outlier Test for Boron (m-60)

Mean	**0.511**
Standard Deviation	**0.0216**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.511	0.0212	0.58	27	3.24	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 0.58

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 0.58

Rosner's Outlier Test for Boron (m-61)

Mean	**0.499**
Standard Deviation	**0.0131**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.499	0.0129	0.53	26	2.419	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Calcium (m-54)

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**
Mean	**99.04**
Standard Deviation	**3.917**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	99.04	3.844	110	4	2.852	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Calcium (m-59)

Mean	**87.33**
Standard Deviation	**3.088**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	87.33	3.031	79	24	2.75	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Calcium (m-60)

Mean	**86.96**
Standard Deviation	**3.643**
Number of data	**27**
Number of suspected outliers	**1**

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	86.96	3.574	96	27	2.528	2.86	3.18			
For 5% Significance Level, there is no Potential Outlier										
For 1% Significance Level, there is no Potential Outlier										
Rosner's Outlier Test for Calcium (m-61)										
Mean	**90.19**									
Standard Deviation	**2.588**									
Number of data	**27**									
Number of suspected outliers	**1**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	90.19	2.539	97	25	2.684	2.86	3.18			
For 5% Significance Level, there is no Potential Outlier										
For 1% Significance Level, there is no Potential Outlier										
Rosner's Outlier Test for Chloride (m-54)										
Mean	**1506**									
Standard Deviation	**81.48**									
Number of data	**28**									
Number of suspected outliers	**1**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	1506	80.01	1300	6	2.58	2.88	3.2			

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Chloride (m-59)

Mean	**1332**
Standard Deviation	**105.6**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1332	103.7	1700	27	3.548	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1700

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1700

Rosner's Outlier Test for Chloride (m-60)

Mean	**1364**
Standard Deviation	**73.1**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1364	71.78	1200	19	2.289	2.88	3.2

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**

Rosner's Outlier Test for Chloride (m-61)

Mean	**1374**
Standard Deviation	**105.9**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1374	104	1700	7	3.135	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 1700

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Fluoride (m-54)

Mean	**1.371**
Standard Deviation	**0.105**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1.371	0.103	1.8	19	4.16	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 1.8

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 1.8

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**										
Rosner's Outlier Test for Fluoride (m-59)											
Mean	**1.4**										
Standard Deviation	**0.0961**										
Number of data	**27**										
Number of suspected outliers	**1**										
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	1.4	0.0943	1.8	19	4.243	2.86	3.18				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 1.8											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 1.8											
Rosner's Outlier Test for Fluoride (m-60)											
Mean	**1.453**										
Standard Deviation	**0.0774**										
Number of data	**28**										
Number of suspected outliers	**1**										
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	1.453	0.076	1.7	19	3.257	2.88	3.2				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 1.7											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 1.7											
Rosner's Outlier Test for Fluoride (m-61)											

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**

Mean	**1.426**
Standard Deviation	**0.0813**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1.426	0.0798	1.7	19	3.435	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 1.7

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 1.7

Rosner's Outlier Test for Lab_pH (m-54)

Mean	**7.6**
Standard Deviation	**0.178**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	7.6	0.174	8.2	22	3.445	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 8.2

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 8.2

Rosner's Outlier Test for Lab_pH (m-59)

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**

Mean	**7.696**
Standard Deviation	**0.142**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	7.696	0.14	8.1	6	2.894	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 8.1

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Lab_pH (m-60)

Mean	**7.692**
Standard Deviation	**0.162**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	7.692	0.159	8.2	22	3.202	2.84	3.16

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 8.2

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 8.2

Rosner's Outlier Test for Lab_pH (m-61)

Mean	**7.67**

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**
Standard Deviation	**0.157**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	7.67	0.154	7.22	1	2.915	2.84	3.16

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 7.22

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Sulfate (m-54)

Mean	**366.6**
Standard Deviation	**20.58**
Number of data	**29**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	366.6	20.22	420	21	2.643	2.89	3.22

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Sulfate (m-59)

Mean	**353.4**
Standard Deviation	**19.69**
Number of data	**29**
Number of suspected outliers	**1**

Appendix B
Outlier Statistics

		Standard Deviation	**0.0222**								
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	353.4	19.35	430	28	3.957	2.89	3.22				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 430											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 430											
Rosner's Outlier Test for Sulfate (m-60)											
		Mean	**362.4**								
		Standard Deviation	**26.68**								
		Number of data	**29**								
		Number of suspected outliers	**1**								
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	362.4	26.22	450	22	3.341	2.89	3.22				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 450											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 450											
Rosner's Outlier Test for Sulfate (m-61)											
		Mean	**361.4**								
		Standard Deviation	**24.75**								
		Number of data	**28**								
		Number of suspected outliers	**1**								
			Potential	Obs.	Test	Critical	Critical				

Appendix B
Outlier Statistics

		Standard Deviation	**0.0222**								
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	361.4	24.31	450	22	3.644	2.88	3.2				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 450											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 450											
Rosner's Outlier Test for Total Dissolved Solids (m-54)											
Mean	**3010**										
Standard Deviation	**185.8**										
Number of data	**29**										
Number of suspected outliers	**1**										
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	3010	182.6	2300	23	3.89	2.89	3.22				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 2300											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 2300											
Rosner's Outlier Test for Total Dissolved Solids (m-59)											
Mean	**2718**										
Standard Deviation	**124.9**										
Number of data	**28**										
Number of suspected outliers	**1**										
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				

Appendix B
Outlier Statistics

		Standard Deviation	**0.0222**								
1	2718	122.6	2300	22	3.407	2.88	3.2				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 2300											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 2300											
Rosner's Outlier Test for Total Dissolved Solids (m-60)											
		Mean	**2870**								
		Standard Deviation	**340.5**								
		Number of data	**30**								
		Number of suspected outliers	**1**								
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	2870	334.8	4200	21	3.972	2.91	3.24				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 4200											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 4200											
Rosner's Outlier Test for Total Dissolved Solids (m-61)											
		Mean	**2848**								
		Standard Deviation	**241.5**								
		Number of data	**29**								
		Number of suspected outliers	**1**								
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	2848	237.3	3800	24	4.011	2.89	3.22				

Appendix B
Outlier Statistics

Standard Deviation	**0.0222**							
For 5% Significance Level, there is 1 Potential Outlier								
Potential outliers is: 3800								
For 1% Significance Level, there is 1 Potential Outlier								
Potential outliers is: 3800								

Appendix B
Summary Statistics

	General Statistics on Uncensored Data	
Date/Time of Computation	ProUCL 5.19/25/2024 9:35:09 PM	
User Selected Options		
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls	
Full Precision	OFF	

From File: BAM_2024Q2_proUCL_UPLOAD_a.xls

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method

Variable	NumObs	# Missing	Num Ds	NumNDs	% NDs	Min ND	Max ND	KM Mean	KM Var	KM SD	KM CV
Boron (m-54)	27	3	27	0	0.00%	N/A	N/A	0.519	4.9487E-4	0.0222	0.0429
Boron (m-59)	27	4	27	0	0.00%	N/A	N/A	0.497	2.0627E-4	0.0144	0.0289
Boron (m-60)	28	5	28	0	0.00%	N/A	N/A	0.511	4.6455E-4	0.0216	0.0421
Boron (m-61)	27	3	27	0	0.00%	N/A	N/A	0.499	1.7179E-4	0.0131	0.0263
Calcium (m-54)	27	3	27	0	0.00%	N/A	N/A	99.04	15.34	3.917	0.0396
Calcium (m-59)	27	4	27	0	0.00%	N/A	N/A	87.33	9.538	3.088	0.0354
Calcium (m-60)	27	6	27	0	0.00%	N/A	N/A	86.96	13.27	3.643	0.0419
Calcium (m-61)	27	3	27	0	0.00%	N/A	N/A	90.19	6.695	2.588	0.0287
Chloride (m-54)	28	2	28	0	0.00%	N/A	N/A	1506	6639	81.48	0.0541
Chloride (m-59)	28	3	28	0	0.00%	N/A	N/A	1332	11151	105.6	0.0793
Chloride (m-60)	28	5	28	0	0.00%	N/A	N/A	1364	5344	73.1	0.0536
Chloride (m-61)	27	3	27	0	0.00%	N/A	N/A	1374	11225	105.9	0.0771
Fluoride (m-54)	28	2	28	0	0.00%	N/A	N/A	1.371	0.011	0.105	0.0765
Fluoride (m-59)	27	4	27	0	0.00%	N/A	N/A	1.4	0.00923	0.0961	0.0686
Fluoride (m-60)	28	5	28	0	0.00%	N/A	N/A	1.453	0.00599	0.0774	0.0533
Fluoride (m-61)	27	3	27	0	0.00%	N/A	N/A	1.426	0.00661	0.0813	0.057
Lab_pH (m-54)	27	3	27	0	0.00%	N/A	N/A	7.6	0.0315	0.178	0.0234
Lab_pH (m-59)	27	4	27	0	0.00%	N/A	N/A	7.696	0.0202	0.142	0.0185
Lab_pH (m-60)	26	7	26	0	0.00%	N/A	N/A	7.692	0.0262	0.162	0.021
Lab_pH (m-61)	26	4	26	0	0.00%	N/A	N/A	7.67	0.0247	0.157	0.0205
Sulfate (m-54)	29	1	29	0	0.00%	N/A	N/A	366.6	423.4	20.58	0.0561
Sulfate (m-59)	29	2	29	0	0.00%	N/A	N/A	353.4	387.7	19.69	0.0557
Sulfate (m-60)	29	4	29	0	0.00%	N/A	N/A	362.4	711.8	26.68	0.0736
Sulfate (m-61)	28	2	28	0	0.00%	N/A	N/A	361.4	612.7	24.75	0.0685
olved Solids (m-54)	29	1	29	0	0.00%	N/A	N/A	3010	34532	185.8	0.0617
olved Solids (m-59)	28	3	28	0	0.00%	N/A	N/A	2718	15595	124.9	0.0459
olved Solids (m-60)	30	3	30	0	0.00%	N/A	N/A	2870	115966	340.5	0.119

Appendix B
Summary Statistics

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method											
olved Solids (m-61)	29	1	29	0	0.00%	N/A	N/A	2848	58300	241.5	0.0848

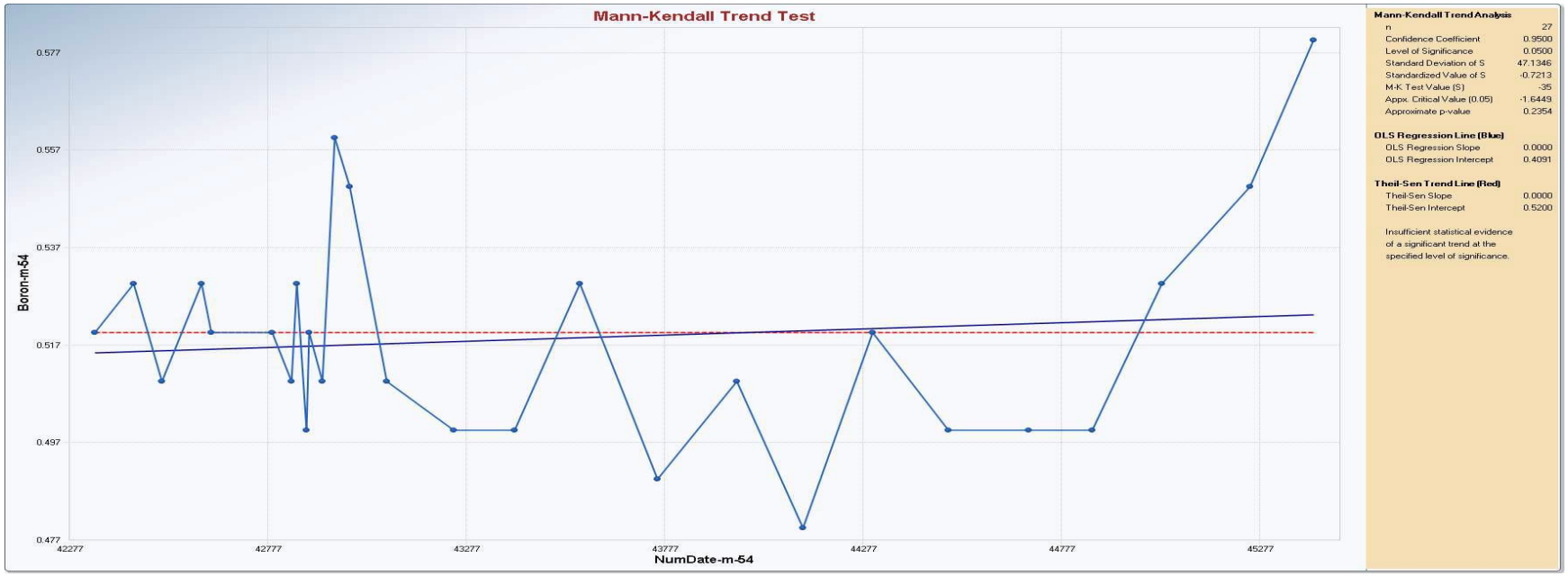
General Statistics for Raw Data Sets using Detected Data Only											
Variable	**NumObs**	**# Missing**	**Minimum**	**Maximum**	**Mean**	**Median**	**Var**	**SD**	**MAD/0.675**	**Skewness**	**CV**
Boron (m-54)	27	3	0.48	0.58	0.519	0.52	4.9487E-4	0.0222	0.0148	0.898	0.0429
Boron (m-59)	27	4	0.48	0.53	0.497	0.5	2.0627E-4	0.0144	0.0148	0.818	0.0289
Boron (m-60)	28	5	0.48	0.58	0.511	0.51	4.6455E-4	0.0216	0.0148	0.997	0.0421
Boron (m-61)	27	3	0.48	0.53	0.499	0.5	1.7179E-4	0.0131	0.0148	0.441	0.0263
Calcium (m-54)	27	3	92	110	99.04	100	15.34	3.917	1.483	1.293	0.0396
Calcium (m-59)	27	4	79	93	87.33	87	9.538	3.088	2.965	-0.279	0.0354
Calcium (m-60)	27	6	79	96	86.96	88	13.27	3.643	2.965	0.00114	0.0419
Calcium (m-61)	27	3	86	97	90.19	90	6.695	2.588	2.965	0.485	0.0287
Chloride (m-54)	28	2	1300	1700	1506	1500	6639	81.48	0	-0.109	0.0541
Chloride (m-59)	28	3	1200	1700	1332	1300	11151	105.6	148.3	1.322	0.0793
Chloride (m-60)	28	5	1200	1500	1364	1400	5344	73.1	0	-0.538	0.0536
Chloride (m-61)	27	3	1100	1700	1374	1400	11225	105.9	0	0.355	0.0771
Fluoride (m-54)	28	2	1.2	1.8	1.371	1.4	0.011	0.105	0.0741	2.492	0.0765
Fluoride (m-59)	27	4	1.3	1.8	1.4	1.4	0.00923	0.0961	0	2.81	0.0686
Fluoride (m-60)	28	5	1.3	1.7	1.453	1.4	0.00599	0.0774	0.0741	1.066	0.0533
Fluoride (m-61)	27	3	1.3	1.7	1.426	1.4	0.00661	0.0813	0	1.327	0.057
Lab_pH (m-54)	27	3	7.3	8.2	7.6	7.6	0.0315	0.178	0.148	1.228	0.0234
Lab_pH (m-59)	27	4	7.5	8.1	7.696	7.7	0.0202	0.142	0.148	0.791	0.0185
Lab_pH (m-60)	26	7	7.5	8.2	7.692	7.7	0.0262	0.162	0.148	1.363	0.021
Lab_pH (m-61)	26	4	7.22	8	7.67	7.7	0.0247	0.157	0.148	-0.566	0.0205
Sulfate (m-54)	29	1	340	420	366.6	360	423.4	20.58	14.83	1.267	0.0561
Sulfate (m-59)	29	2	330	430	353.4	350	387.7	19.69	14.83	2.586	0.0557
Sulfate (m-60)	29	4	330	450	362.4	350	711.8	26.68	14.83	2.243	0.0736
Sulfate (m-61)	28	2	330	450	361.4	360	612.7	24.75	14.83	2.222	0.0685
olved Solids (m-54)	29	1	2300	3300	3010	3100	34532	185.8	148.3	-2.063	0.0617
olved Solids (m-59)	28	3	2300	2900	2718	2700	15595	124.9	148.3	-1.592	0.0459
olved Solids (m-60)	30	3	2200	4200	2870	2800	115966	340.5	148.3	2.633	0.119
olved Solids (m-61)	29	1	2300	3800	2848	2800	58300	241.5	148.3	1.952	0.0848

Percentiles using all Detects (Ds) and Non-Detects (NDs)										
Variable	**NumObs**	**# Missing**	**10%ile**	**20%ile**	**25%ile(Q1)**	**50%ile(Q2)**	**75%ile(Q3)**	**80%ile**	**90%ile**	**95%ile**	**99%ile**

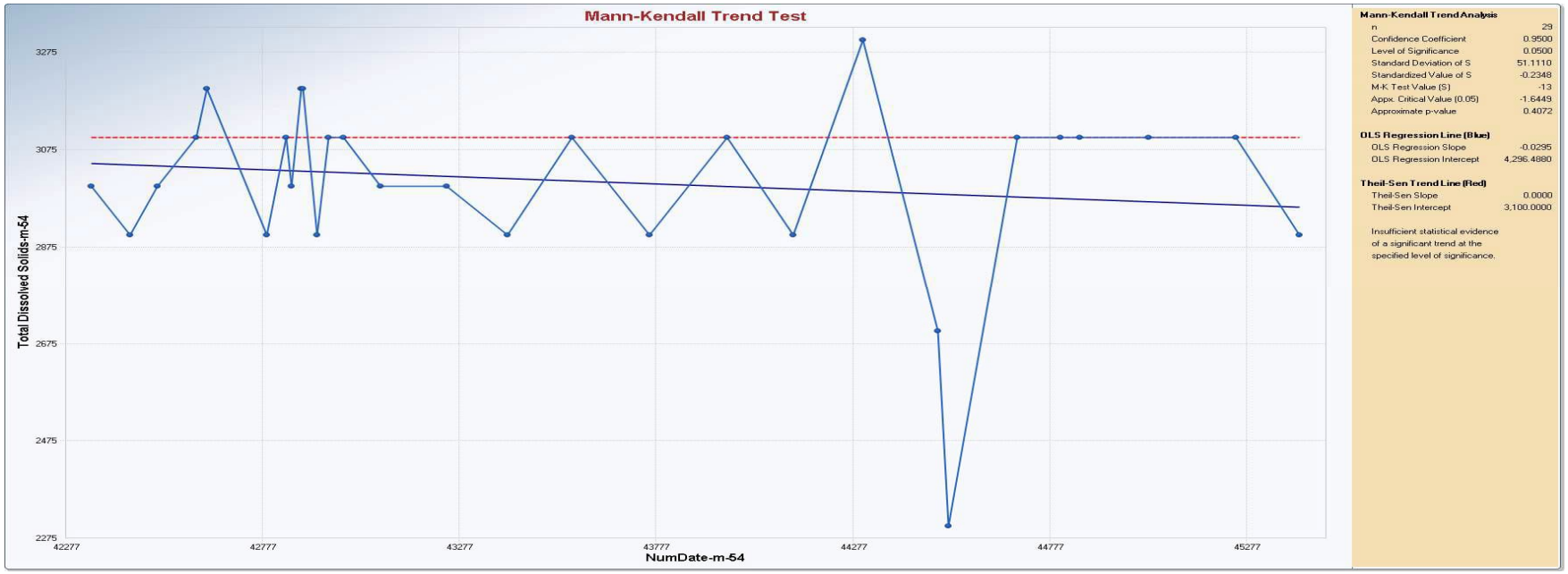
Appendix B
Summary Statistics

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method											
Boron (m-54)	27	3	0.5	0.5	0.5	0.52	0.53	0.53	0.55	0.557	0.575
Boron (m-59)	27	4	0.48	0.482	0.49	0.5	0.5	0.508	0.514	0.527	0.53
Boron (m-60)	28	5	0.487	0.494	0.5	0.51	0.523	0.53	0.53	0.537	0.569
Boron (m-61)	27	3	0.48	0.49	0.49	0.5	0.51	0.51	0.514	0.52	0.527
Calcium (m-54)	27	3	95	96.2	97	100	100	100	100	107	110
Calcium (m-59)	27	4	84	85	85.5	87	89	89.8	90.8	92.7	93
Calcium (m-60)	27	6	83	84.2	85	88	89	89.8	90.4	91.7	94.96
Calcium (m-61)	27	3	87	88	88	90	92	92	93	93.7	96.22
Chloride (m-54)	28	2	1400	1488	1500	1500	1525	1600	1600	1600	1673
Chloride (m-59)	28	3	1200	1240	1300	1300	1400	1400	1400	1400	1619
Chloride (m-60)	28	5	1300	1300	1300	1400	1400	1400	1400	1465	1500
Chloride (m-61)	27	3	1300	1300	1300	1400	1400	1400	1440	1500	1648
Fluoride (m-54)	28	2	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.465	1.719
Fluoride (m-59)	27	4	1.3	1.32	1.4	1.4	1.4	1.4	1.44	1.5	1.722
Fluoride (m-60)	28	5	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.546	1.665
Fluoride (m-61)	27	3	1.36	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.648
Lab_pH (m-54)	27	3	7.4	7.5	7.5	7.6	7.7	7.7	7.74	7.8	8.096
Lab_pH (m-59)	27	4	7.518	7.6	7.6	7.7	7.8	7.8	7.84	7.9	8.048
Lab_pH (m-60)	26	7	7.5	7.6	7.6	7.7	7.8	7.8	7.815	7.958	8.15
Lab_pH (m-61)	26	4	7.5	7.59	7.6	7.7	7.8	7.8	7.8	7.875	7.975
Sulfate (m-54)	29	1	350	350	350	360	370	380	392	412	420
Sulfate (m-59)	29	2	340	340	340	350	360	360	362	388	421.6
Sulfate (m-60)	29	4	340	350	350	350	370	370	384	424	447.2
Sulfate (m-61)	28	2	340	350	350	360	362.5	370	383	409.5	441.9
olved Solids (m-54)	29	1	2900	2900	2900	3100	3100	3100	3200	3200	3272
olved Solids (m-59)	28	3	2570	2700	2700	2700	2800	2800	2800	2865	2900
olved Solids (m-60)	30	3	2700	2780	2800	2800	2900	2900	2910	3440	4084
olved Solids (m-61)	29	1	2700	2700	2700	2800	2900	2900	3000	3120	3632

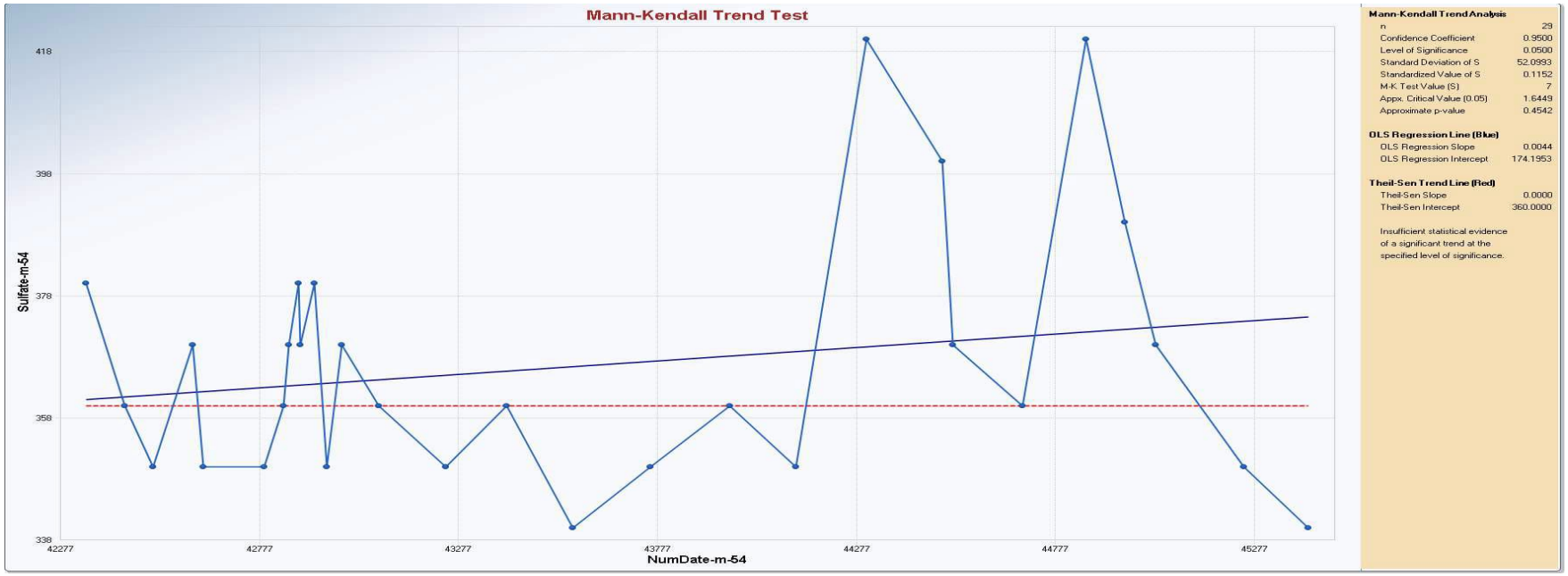
Appendix B
Time Series Plots



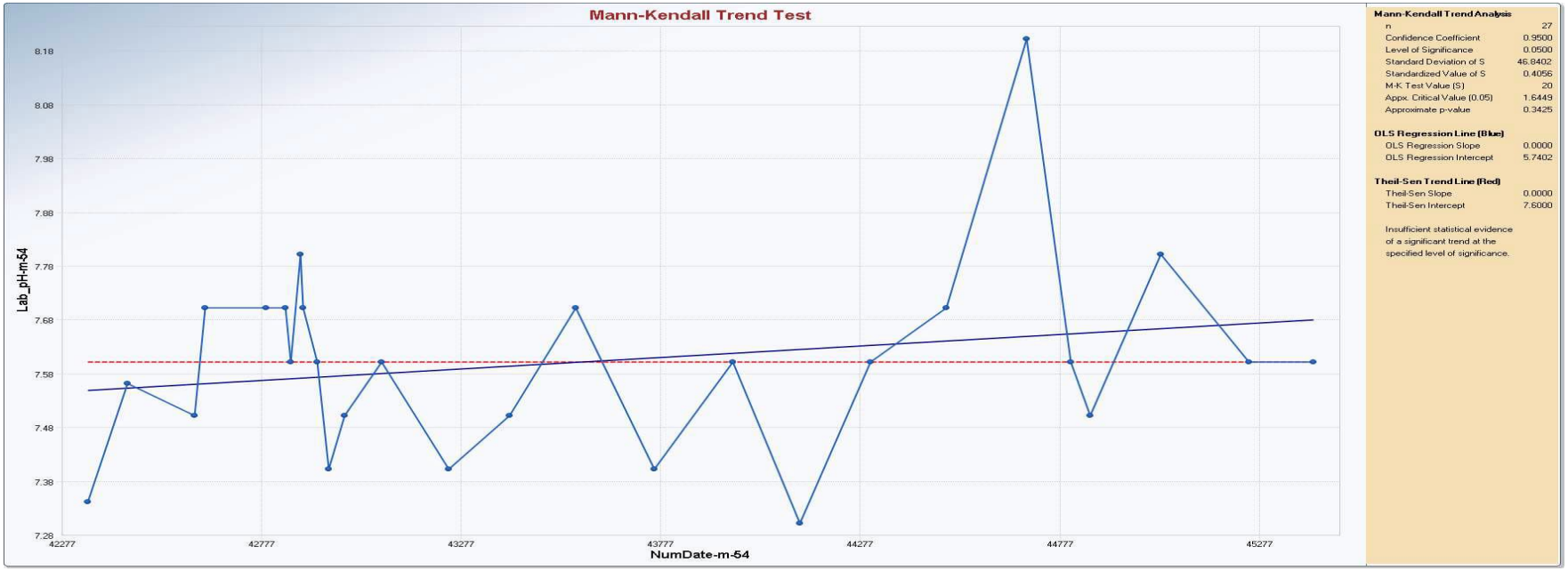
Appendix B
Time Series Plots



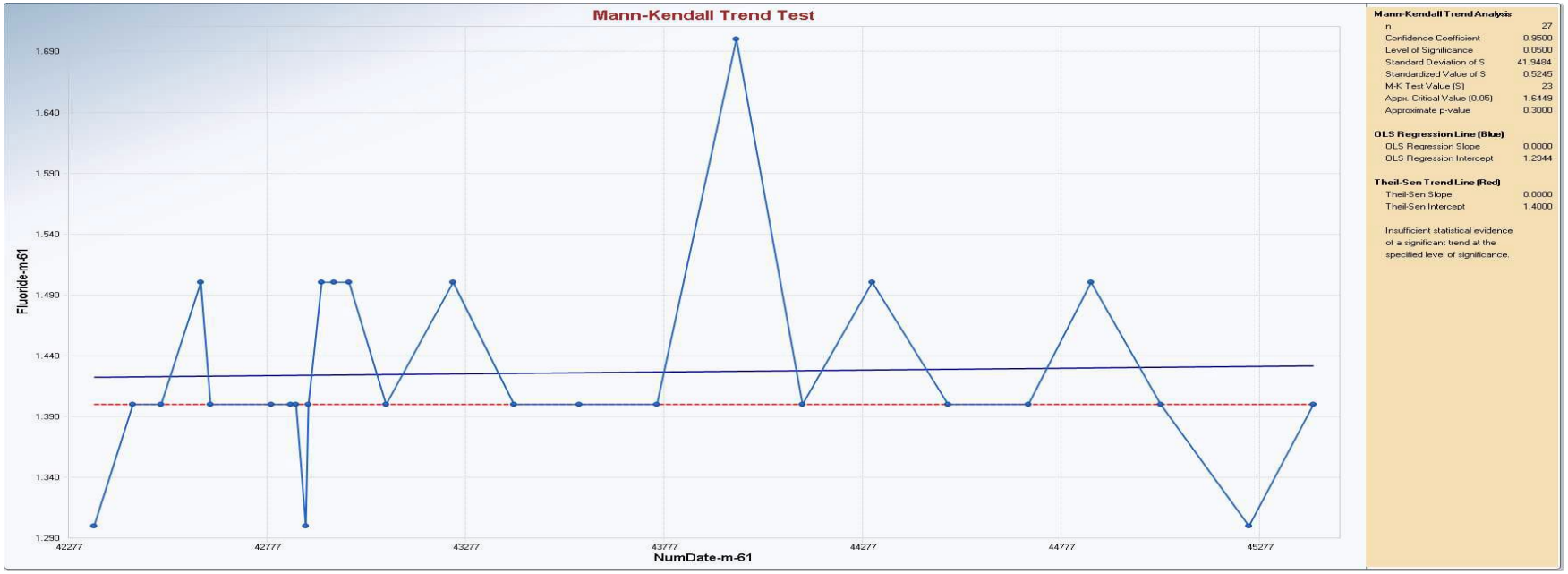
Appendix B
Time Series Plots



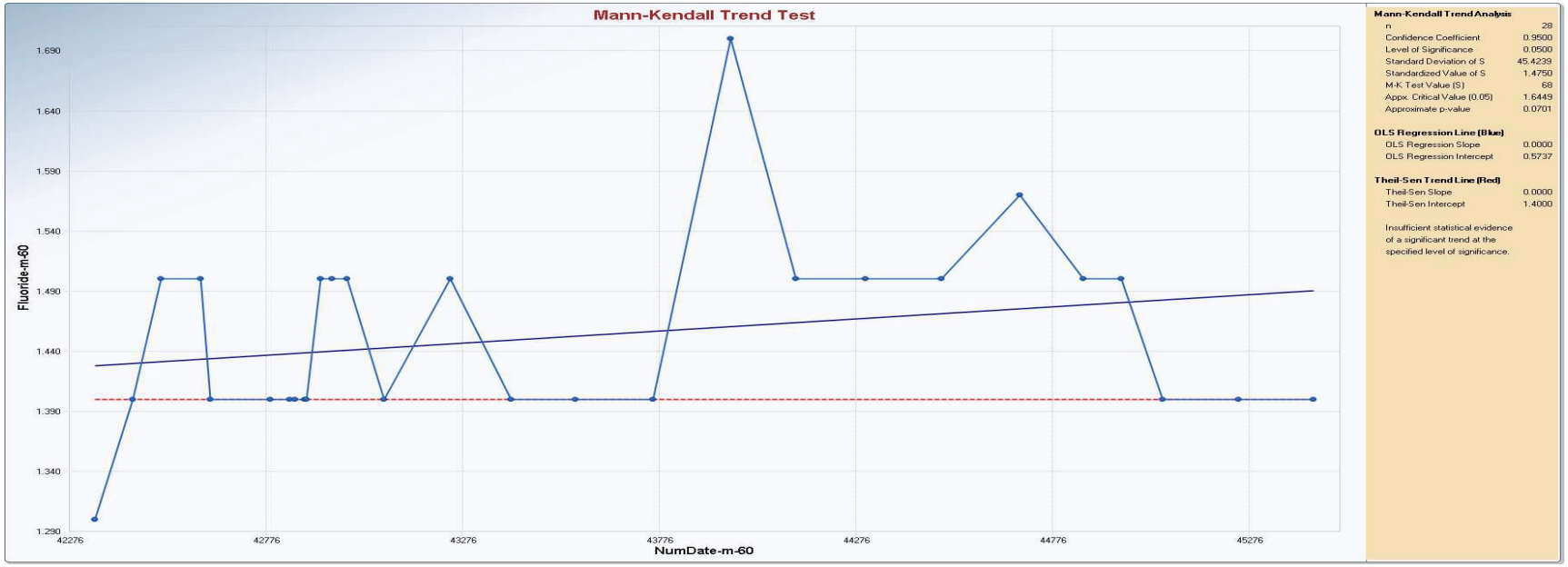
Appendix B
Time Series Plots



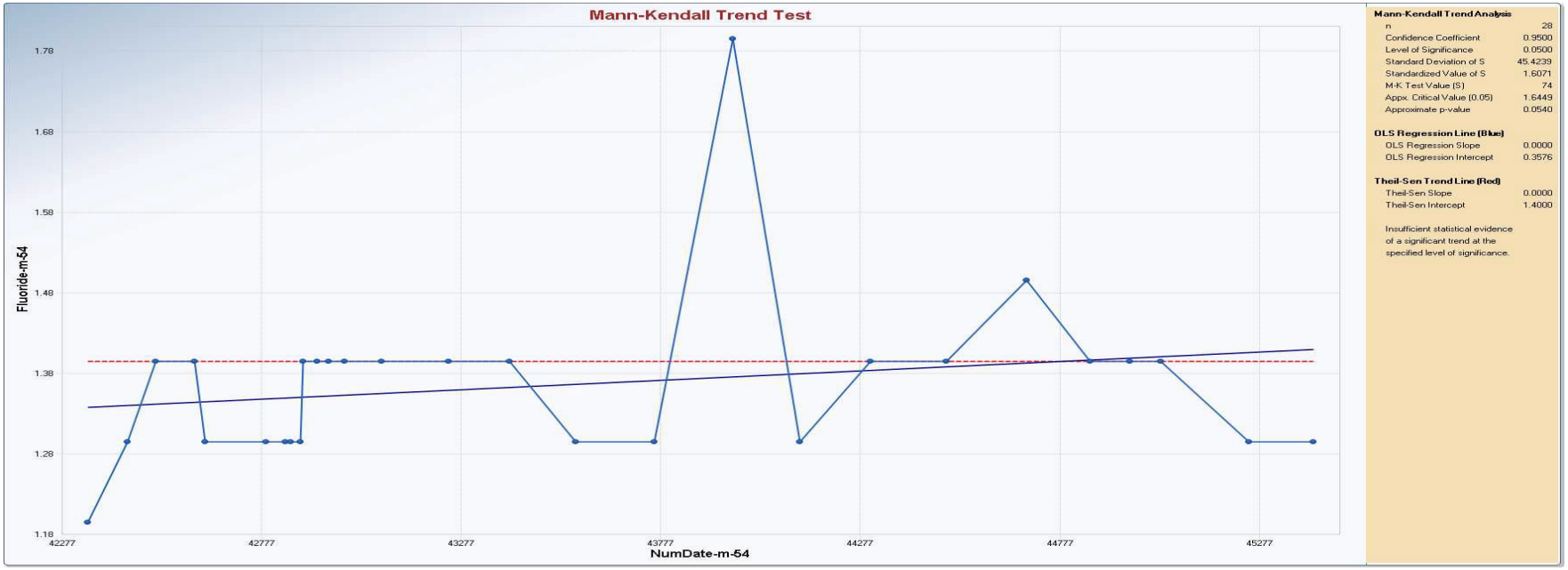
Appendix B
Time Series Plots



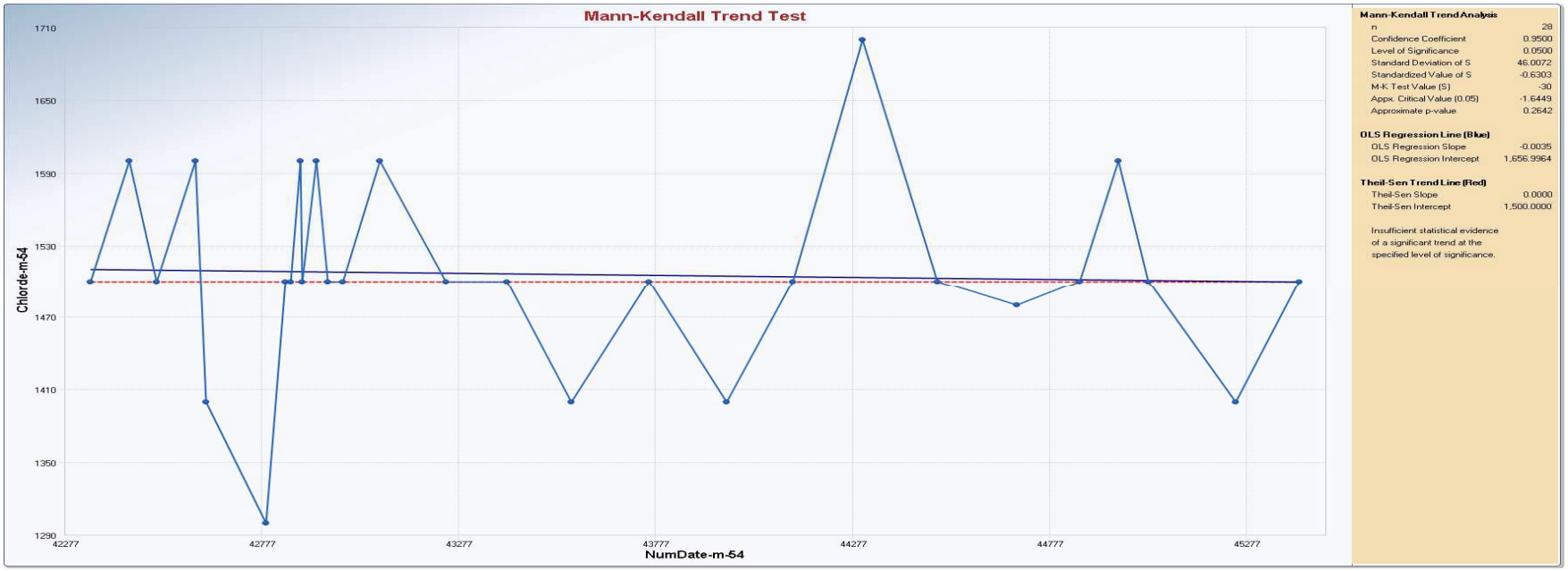
Appendix B
Time Series Plots



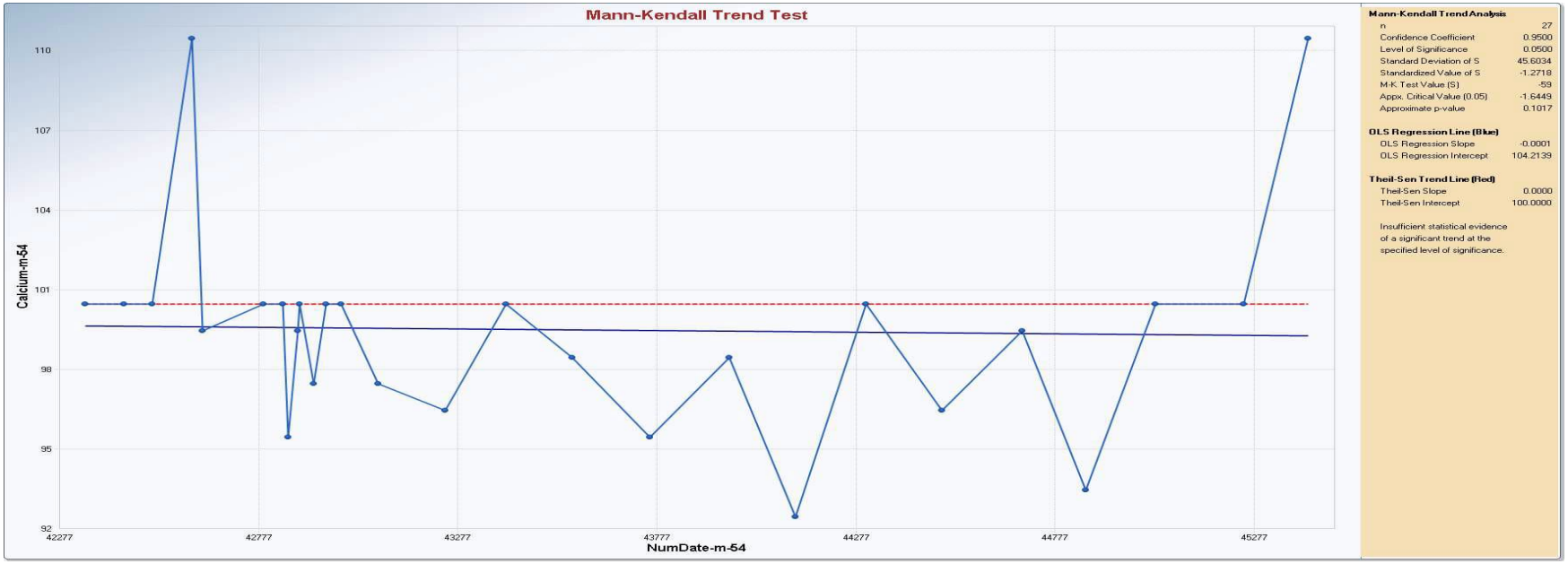
Appendix B
Time Series Plots



Appendix B
Time Series Plots



Appendix B
Time Series Plots



Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/26/2024 6:03:45 AM
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Boron-m-54

General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	3
Number or Reported Events Used	27
Number Values Reported (n)	30
Number Values Missing	3
Number Values Used	27
Minimum	0.48
Maximum	0.58
Mean	0.519
Geometric Mean	0.518
Median	0.52
Standard Deviation	0.0222
Coefficient of Variation	0.0429

Mann-Kendall Test	
M-K Test Value (S)	-35
Critical Value (0.05)	-1.645
Standard Deviation of S	47.13
Standardized Value of S	-0.721
Approximate p-value	0.235

Insufficient evidence to identify a significant trend at the specified level of significance.

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/26/2024 6:06:15 AM
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls
Full Precision	OFF

Appendix B
Time Series Statistics

Number of Events Reported (m)	30								
Confidence Coefficient	0.95								
Level of Significance	0.05								
Calcium-m-54									
General Statistics									
Number of Events Reported (m)	30								
Number of Missing Events	3								
Number or Reported Events Used	27								
Number Values Reported (n)	30								
Number Values Missing	3								
Number Values Used	27								
Minimum	92								
Maximum	110								
Mean	99.04								
Geometric Mean	98.96								
Median	100								
Standard Deviation	3.917								
Coefficient of Variation	0.0396								
Mann-Kendall Test									
M-K Test Value (S)	-59								
Critical Value (0.05)	-1.645								
Standard Deviation of S	45.6								
Standardized Value of S	-1.272								
Approximate p-value	0.102								
Insufficient evidence to identify a significant									
trend at the specified level of significance.									
	Mann-Kendall Trend Test Analysis								
User Selected Options									
Date/Time of Computation	ProUCL 5.19/26/2024 6:07:38 AM								
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls								
Full Precision	OFF								
Confidence Coefficient	0.95								
Level of Significance	0.05								
Chloride-m-54									

Appendix B
Time Series Statistics

Number of Events Reported (m)	30
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	2
Number or Reported Events Used	28
Number Values Reported (n)	30
Number Values Missing	2
Number Values Used	28
Minimum	1300
Maximum	1700
Mean	1506
Geometric Mean	1504
Median	1500
Standard Deviation	81.48
Coefficient of Variation	0.0541
Mann-Kendall Test	
M-K Test Value (S)	-30
Critical Value (0.05)	-1.645
Standard Deviation of S	46.01
Standardized Value of S	-0.63
Approximate p-value	0.264
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/26/2024 6:25:23 AM
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Fluoride-m-54	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	2

Appendix B
Time Series Statistics

Number of Events Reported (m)	30
Number or Reported Events Used	28
Number Values Reported (n)	30
Number Values Missing	2
Number Values Used	28
Minimum	1.2
Maximum	1.8
Mean	1.371
Geometric Mean	1.368
Median	1.4
Standard Deviation	0.105
Coefficient of Variation	0.0765
Mann-Kendall Test	
M-K Test Value (S)	74
Critical Value (0.05)	1.645
Standard Deviation of S	45.42
Standardized Value of S	1.607
Approximate p-value	0.054
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Fluoride-m-60	
General Statistics	
Number of Events Reported (m)	33
Number of Missing Events	5
Number or Reported Events Used	28
Number Values Reported (n)	33
Number Values Missing	5
Number Values Used	28
Minimum	1.3
Maximum	1.7
Mean	1.453
Geometric Mean	1.451
Median	1.4
Standard Deviation	0.0774
Coefficient of Variation	0.0533
Mann-Kendall Test	

Appendix B
Time Series Statistics

Number of Events Reported (m)	30
M-K Test Value (S)	68
Critical Value (0.05)	1.645
Standard Deviation of S	45.42
Standardized Value of S	1.475
Approximate p-value	0.0701
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Fluoride-m-61	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	3
Number or Reported Events Used	27
Number Values Reported (n)	30
Number Values Missing	3
Number Values Used	27
Minimum	1.3
Maximum	1.7
Mean	1.426
Geometric Mean	1.424
Median	1.4
Standard Deviation	0.0813
Coefficient of Variation	0.057
Mann-Kendall Test	
M-K Test Value (S)	23
Critical Value (0.05)	1.645
Standard Deviation of S	41.95
Standardized Value of S	0.524
Approximate p-value	0.3
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Mann-Kendall Trend Test Analysis	
User Selected Options	
Date/Time of Computation	ProUCL 5.19/26/2024 6:26:47 AM
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls
Full Precision	OFF

Appendix B
Time Series Statistics

Number of Events Reported (m)	30								
Confidence Coefficient	0.95								
Level of Significance	0.05								
Lab_pH-m-54									
General Statistics									
Number of Events Reported (m)	30								
Number of Missing Events	3								
Number or Reported Events Used	27								
Number Values Reported (n)	30								
Number Values Missing	3								
Number Values Used	27								
Minimum	7.3								
Maximum	8.2								
Mean	7.6								
Geometric Mean	7.598								
Median	7.6								
Standard Deviation	0.178								
Coefficient of Variation	0.0234								
Mann-Kendall Test									
M-K Test Value (S)	20								
Critical Value (0.05)	1.645								
Standard Deviation of S	46.84								
Standardized Value of S	0.406								
Approximate p-value	0.343								
Insufficient evidence to identify a significant									
trend at the specified level of significance.									
	Mann-Kendall Trend Test Analysis								
User Selected Options									
Date/Time of Computation	ProUCL 5.19/26/2024 6:33:00 AM								
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls								
Full Precision	OFF								
Confidence Coefficient	0.95								
Level of Significance	0.05								
Sulfate-m-54									

Appendix B
Time Series Statistics

Number of Events Reported (m)	30
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	1
Number or Reported Events Used	29
Number Values Reported (n)	30
Number Values Missing	1
Number Values Used	29
Minimum	340
Maximum	420
Mean	366.6
Geometric Mean	366
Median	360
Standard Deviation	20.58
Coefficient of Variation	0.0561
Mann-Kendall Test	
M-K Test Value (S)	7
Critical Value (0.05)	1.645
Standard Deviation of S	52.1
Standardized Value of S	0.115
Approximate p-value	0.454
Insufficient evidence to identify a significant trend at the specified level of significance.	
	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/26/2024 6:37:27 AM
From File	BAM_2024Q2_proUCL_UPLOAD_a.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Total Dissolved Solids-m-54	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	1
Number or Reported Events Used	29
Number Values Reported (n)	30

Appendix B
Time Series Statistics

Number of Events Reported (m)	30
Number Values Missing	1
Number Values Used	29
Minimum	2300
Maximum	3300
Mean	3010
Geometric Mean	3004
Median	3100
Standard Deviation	185.8
Coefficient of Variation	0.0617
Mann-Kendall Test	
M-K Test Value (S)	-13
Critical Value (0.05)	-1.645
Standard Deviation of S	51.11
Standardized Value of S	-0.235
Approximate p-value	0.407
Insufficient evidence to identify a significant trend at the specified level of significance.	

Appendix B
Intrawell Comparison Statistics

Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects	
User Selected Options	
Date/Time of Computation	ProUCL 5.110/1/2024 10:36:52 AM
From File	BAM_2024Q2_proUCL_UPLOAD_c.xls
Full Precision	OFF
Confidence Coefficient	99%
Selected Null Hypothesis	Sample 1 Mean/Median = Sample 2 Mean/Median (2 Sided Alternative
Alternative Hypothesis	Sample 1 Mean/Median <> Sample 2 Mean/Median

M-60
Sample 1 Data: Fluoride(baseline)
Sample 2 Data: Fluoride(compliance)

Raw Statistics

	Sample 1	Sample 2
Number of Valid Data	20	8
Number of Non-Detects	0	0
Number of Detect Data	20	8
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non-detects	0.00%	0.00%
Minimum Detect	1.3	1.4
Maximum Detect	1.7	1.57
Mean of Detects	1.445	1.471
Median of Detects	1.4	1.5
SD of Detects	0.0826	0.0636

Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Sample 1 = Mean/Median of Sample 2

Sample 1 Rank Sum W-Stat	269.5
WMW U-Stat	59.5
Mean (U)	80
SD(U) - Adj ties	19.06
Lower U-Stat Critical Value (0.005)	31
Upper U-Stat Critical Value (0.995)	129
Standardized WMW U-Stat	-1.155

Appendix B
Intrawell Comparison Statistics

Sample 1 Data: Fluoride(baseline)			
Approximate P-Value	0.248		
Conclusion with Alpha = 0.01			
Do Not Reject H0, Conclude Sample 1 = Sample 2			
Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects			
User Selected Options			
Date/Time of Computation	ProUCL 5.110/1/2024 10:35:04 AM		
From File	BAM_2024Q2_proUCL_UPLOAD_d.xls		
Full Precision	OFF		
Confidence Coefficient	99%		
Selected Null Hypothesis	Sample 1 Mean/Median = Sample 2 Mean/Median (2 Sided Alternative		
Alternative Hypothesis	Sample 1 Mean/Median <> Sample 2 Mean/Median		
M-61			
Sample 1 Data: Fluoride(baseline)			
Sample 2 Data: Fluoride(compliance)			
Raw Statistics			
	Sample 1	Sample 2	
Number of Valid Data	20	7	
Number of Missing Observations	0	3	
Number of Non-Detects	0	0	
Number of Detect Data	20	7	
Minimum Non-Detect	N/A	N/A	
Maximum Non-Detect	N/A	N/A	
Percent Non-detects	0.00%	0.00%	
Minimum Detect	1.3	1.3	
Maximum Detect	1.7	1.5	
Mean of Detects	1.43	1.414	
Median of Detects	1.4	1.4	
SD of Detects	0.0865	0.069	
Wilcoxon-Mann-Whitney (WMW) Test			
H0: Mean/Median of Sample 1 = Mean/Median of Sample 2			
Sample 1 Rank Sum W-Stat	284		

Appendix B
Intrawell Comparison Statistics

Sample 1 Data: Fluoride(baseline)	
WMW U-Stat	74
Mean (U)	70
SD(U) - Adj ties	15.91
Lower U-Stat Critical Value (0.005)	25
Upper U-Stat Critical Value (0.995)	115
Standardized WMW U-Stat	0.252
Approximate P-Value	0.801
Conclusion with Alpha = 0.01	

APPENDIX

H

WSP TECHNICAL MEMORANDUM DOCUMENTING THE STATISTICAL ANALYSIS BTVS FOR THE BAP AND FAP

TECHNICAL MEMORANDUM

To:	Arizona Public Service Company	**Project No.**	US0023513.9708-US-2024 Cholla CCR Compliance SVC
By:	Samantha O'Shea	**Reviewed by:**	Maren Henley, PE
Tel:	602-733-6000	**CC:**	File
Date:	January 08, 2025		

Re: **CCR GROUNDWATER ASSESSMENT MONITORING**
STATISTICAL ANALYSIS FOR THE BOTTOM ASH POND AND FLY ASH POND
BACKGROUND THRESHOLD VALUES UPDATE
Arizona Public Service Company Cholla Power Plant – Navajo County, Arizona

1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) presents an update to the background statistical evaluation for groundwater at the Bottom Ash Pond (BAP) and Fly Ash Pond (FAP) located at the Arizona Public Service Company (APS) Cholla Power Plant (Site) in Navajo County, Arizona. The statistical evaluation was performed by Geosciences Consulting LLC (Geosciences Consulting), a subcontractor to WSP USA Environment and Infrastructure, Inc. (WSP) pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020).

The BAP and FAP are each CCR units at the Site that are undergoing corrective action and are in the assessment monitoring program. The FAP is in corrective action based on concentrations of arsenic, fluoride, lithium and molybdenum exceeding the groundwater protection standard (GWPS) (Wood, 2018a). An alternative source demonstration (ASD) was performed for arsenic and cobalt at the FAP. It was determined that the exceedance of cobalt declared at the FAP was not attributed to a release at the FAP and the arsenic exceedance analysis was inconclusive (Wood, 2020). The FAP closure is projected to be completed in 2028 (WSP, 2023). The BAP is in corrective action due to concentrations of cobalt exceeding the GWPS (Wood, 2018b). An ASD was performed for lithium at the BAP. It was determined that the lithium exceedance was not due to a release from the BAP (Wood, 2019). The BAP closure is projected to be completed in 2028 (WSP, 2023).

The statistical evaluation documented herein updates the background threshold values (BTVs) established in 2018 (Wood 2018) by incorporating additional Appendix IV constituent data collected from BAP/FAP background monitoring well (M-64A) through May 2024 (the Spring 2024 event). The BTVs presented in this Tech Memo were updated in accordance with the Statistical Data Analysis Work Plan (SDAWP) for the Site (WSP, 2023) including data through May 2024.

2.0 STATISTICAL EVALUATION RESULTS

Attachment A presents the statistical evaluation conducted by Geosciences Consulting. **Attachment A** summarizes the GWPS selection for each Appendix IV constituent.

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The basis for the GWPS (BTV, United States Environmental Protection Agency [USEPA] Maximum Contaminant Level [MCL], or Alternative Risk-Based GWPS) did not change for any of the constituents during this BTV update. The BTV remains as the applicable GWPS for lithium. The lithium BTV increased from 0.31 to 0.418 mg/L. The ASD prepared for lithium at the BAP was performed using a BTV and GWPS value for lithium of 0.31 mg/L. The conditions of the ASD remain unchanged with natural variation in the aquifer still present and pointing to the existence of spatial heterogeneity within the alluvial system. Additionally, water quality sampling results confirm concentrations of lithium in the BAP may be lower than lithium concentrations in the background well (M-64A) and downgradient monitoring wells. Another ASD is not needed to be performed at this time. The remaining Appendix IV constituents are subject to the USEPA's promulgated MCL or the risk-based alternative GWPS.

3.0 RECOMMENDATIONS

Based on the results of the statistical evaluation presented in **Attachment A** and pursuant to the CCR Rule, the BTVs and the GWPSs should be updated routinely (i.e, every 2 to 3 years). Additionally, the laboratory should achieve reporting limits below the USEPA's promulgated MCLs and maintain a constant reporting limit for each analyte over time for all monitoring wells – background and compliance.

4.0 REFERENCES

- Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).
- United States Environmental Protection Agency (USEPA), 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007*. Environmental Protection Agency Office of Resource Conservation and Recovery.
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- Wood, 2020. Alternative Source Demonstration for Arsenic and Cobalt at the FAP. Cholla Power Plant, Navajo County, Arizona. Prepared for Arizona Public Service. January 31, 2020.
- WSP USA Environment & Infrastructure, Inc. (WSP), 2023. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Cholla Power Plant, Navajo County, Arizona. Prepared for Arizona Public Service. January 10, 2023.

ATTACHMENT A

BAP/FAP CCR ASSESSMENT MONITORING BACKGROUND THRESHOLD VALUES UPDATE OCTOBER 2024

- GEOSCIENCE CONSULTING STRATEGIES LLC

Technical Memorandum

To: Maren Henley, PE
Wood Environment & Infrastructure Solutions, Inc.

From: Carla Landrum, PhD
Geoscience Consulting Strategies LLC

Date: October 28, 2023

Subject: **Memorandum for File**
BAP/FAP CCR Assessment Monitoring Background Threshold Values Update
October 2024
Arizona Public Service Company Cholla Power Plant – Navajo County, Arizona

1.0 INTRODUCTION

This Memorandum for File (Memo) documents updates to the Background Threshold Values (BTVs) for assessment monitoring (i.e., Appendix IV constituents) groundwater data associated with the Fly Ash Pond (FAP) and Bottom Ash Pond (BAP) located at the Arizona Public Service Company (APS) Cholla Power Plant (Cholla) in Navajo County, Arizona. This statistical evaluation is completed by Geoscience Consulting Strategies LLC in accordance with the Statistical Data Analysis Work Plan (SDAWP) for Cholla (WSP USA Environment & Infrastructure Inc [WSP], 2023).

The groundwater protection standards (GWPSs) for Appendix IV constituents for the BAP and FAP (BAP/FAP) constitute either: 1) statistically-driven BTVs, 2) the applicable U.S. Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) promulgated under the Safe Drinking Water Act, or 3) alternative risk-based GWPSs established in the statute, whichever is higher (40 Code of Federal Regulations [CFR] Section [§] 257.95(h) [Federal Register, 2020]). Updates to the statistically-driven BTVs will initiate the re-selection of GWPSs, as necessary.

The FAP is in corrective action as a result from 2018 GWPSs exceedances for arsenic, cobalt, fluoride, lithium and molybdenum where sufficient evidence was present to declare an SSI above the GWPS (Wood, 2018a). An alternate source demonstration was performed and concluded that the exceedance declared at the FAP for cobalt is not attributable to the FAP (Wood, 2020). The FAP is planned for closure completion in 2028 (WSP, 2023). The BAP is in corrective action as a result from a 2018 exceedance for cobalt and lithium where sufficient evidence was present to declare an SSI above the GWPS (Wood, 2018b). An alternate source demonstration was performed and concluded that the exceedance declared at the BAP for lithium is not attributable to the BAP (Wood, 2019). The BAP is planned for closure completion in 2028 (WSP, 2023).

The following sections detail data inputs, methods, results and recommendations.

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2.0 DATA INPUTS

The BAP/FAP groundwater monitoring well networks consists of one background monitoring well (M-64A). The selection of M-64A as a background well for both the BAP and FAP is provided in Section 1.3.2 of the Cholla SDAWP (WSP, 2023). The FAP has three downgradient compliance wells located at the waste boundary (W-123, M-50A, M-51A) and three downgradient wells (MW-65A, MW-66A and MW-67A). The BAP has nine downgradient compliance wells located at the waste boundary (M-52A, M-53A, M-71A, MW-72M, MW-73A, MW-74M, W-305, W-306, and W-314) and four downgradient wells (MW-76A, MW-77A, MW-78A, and MW-79A).

The period of data evaluation ranges from February 2017 to May 2024. Appendix A contains the sample data for the subject update. Depending on the Appendix IV constituent, the minimal sample numbers in this statistical evaluation ranges between 12 to 26 for background well M-64A.

Data inputs for this statistical analysis were prepared, and provided by, WSP. As shown in Appendix A, the Appendix IV analytes are listed by name or chemical symbol as column headers as required by the statistical software (i.e., ProUCL) (EPA, 2015). By convention, each analyte has a corresponding data column (indicated with a "D_" prefix) that indicates if the analyte was detected or not at a concentration that exceeds the analytical reporting limit, where detectable concentrations are symbolized by a "1" and non-detectable concentrations are symbolized by a "0."

3.0 METHODS

To establish current GWPSs for the BAP/FAP, updates to the Appendix IV BTVs are necessary. In accordance with the Unified Guidance (U.S. EPA, 2009) and CCR Rule (40 C.F.R. § 257.93(f)(3)), the Cholla SDAWP (WSP, 2023) identifies the upper tolerance limit (UTL) method as the prescribed approach for establishing BTVs for assessment monitoring. The advantage of selecting the UTL method is its ability to serve as a single-sample statistical comparison. The statistical hypothesis structure for a single-sample comparison is reversible, such that the same fixed background level can be used for assessment monitoring and later for corrective action comparison testing, if necessary. The UTL tests are applicable for analytes that exhibit non-detectable frequencies of less than 100%.

The U.S. EPA's Unified Guidance (2009) and the Cholla SDAWP (WSP, 2023) promotes the use of the Double Quantification Rule (DQR) to calculate the UTL in cases where the background non-detection frequency is equal to 100%.

To determine compliance under assessment monitoring, the Appendix IV sample data from downgradient compliance wells are statistically compared to respective GWPSs using confidence intervals. Confidence intervals encompass a variety of statistical tests (U.S. EPA, 2009). For assessment monitoring, the lower confidence limit (LCL) for each Appendix IV constituent is compared to its respective GWPS to assess if the lower limit exceeds the GWPS and, if so, declares a statistically significant increase (SSI) in constituent concentrations above the GWPS.

The following section describe the statistical methods used to update the BAP/FAP BTVs.

3.1 EDA Workflow Procedures

EDA is a data diagnostic step that generates qualitative and quantitative information necessary to select a defensible statistical method to determine if there is an SSI over the GWPS. Figure 1 generalizes the EDA workflow, including assessment of spatial heterogeneity, trend detection, data distribution assessment, and outlier detection. Sample number, monitoring well network configuration, sampling frequency and non-detect frequency determine which EDA methods are most useful. The final EDA step is selecting an adequate and appropriate statistical method. Notably, the EDA workflow procedure is standard between detection monitoring and assessment monitoring.

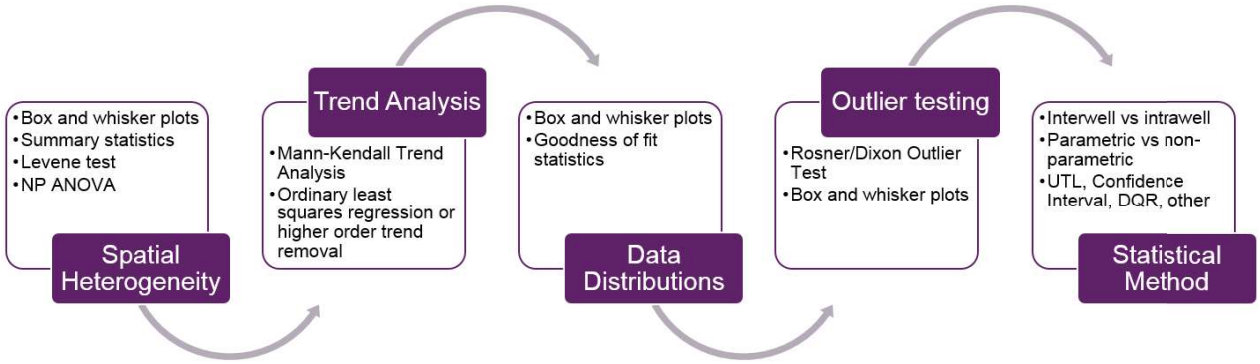

Figure 1. Assessment monitoring EDA and statistical method workflow procedures. Each box represent as separate step in the EDA workflow process. The items listed in each box identifies the statistical method(s) applied for each step. Both quantitative and qualitative methods are listed.

There are a number of different types of tolerance limit and confidence interval quantification methods to select from, depending on the statistical distribution, the presence of a temporal trend, the type of statistical comparison (e.g. interwell or intrawell) and the quantity of non-detect values in the background sample data. The following subsections describe these methods and criteria for their selection.

Non-detect values can introduce subjective uncertainty into the trend analysis, mainly through changes in the reporting limits over time since they are often substituted as the sample analytical value. To avoid this subjective uncertainty, constituents with a non-detect frequency greater than 50% were excluded from the trend analysis.

3.2 Establishing Background Threshold Values

As stated in Section 1.0, BTVs can serve as the GWPS, if appropriate. For this reason, the BTVs were updated as part of this statistical evaluation. Three UTL statistical tests are applicable for updating BTVs for Appendix IV constituents at Cholla: the parametric interwell upper tolerance limit, the parametric interwell upper tolerance limit with a trend, non-parametric interwell upper tolerance limit and the Double Quantification Rule. This work assumes that background well locations are adequate and thereby declare interwell comparisons appropriate. Each statistical test is described below.

3.2.1 Parametric Interwell Upper Tolerance Limit (P-UTL)

An interwell UTL represents an upper boundary, or threshold concentration value, that contains a pre-specified proportion, or coverage, of the underlying groundwater statistical population. For example, this coverage can range from 95% to 99% of all possible sample measurements in the underlying background statistical population, depending on the data characteristics. Because the monitoring program cannot sample everywhere, there is inherent uncertainty in defining the true underlying statistical population. For this reason, statistical confidence in this coverage is incorporated into the UTL equation using a tolerance coefficient (U.S. EPA, 2009). Oftentimes a tolerance coefficient of at least 95% is used, which corresponds to a significance level (α) equal to 5% (U.S. EPA, 2009). Table 17-3 within the Unified Guidance (U.S. EPA, 2009) combines the coverage and confidence to calculate the UTL.

A parametric interwell upper tolerance limit (P-UTL) is an adequate method if the background sample data generally met the following criteria, which are tested using procedures declared in the SDAWP (WSP, 2023):

1. Temporal stationarity (no trend in concentration through time)
2. Normal or transformed normal data distribution
3. Spatial heterogeneity is minimal
4. Sample outliers have been removed
5. Sample data are statistically independent and identically distributed

The P-UTLs were calculated using a 95% coverage with a 95% confidence.

The UTL coverage assumes the background sample data set is adequate and representative of intrinsic spatial and temporal variability in groundwater constituent concentrations beneath the BAP and FAP for Appendix IV constituents. Factors that can violate this assumption include: 1) background wells completed in a different water-bearing unit than compliance wells (i.e., spatial heterogeneity), 2) background wells that have not been sampled during times of extreme potentiometric level (e.g., drought, etc.), and 3) structurally-compromised wells that do not produce representative groundwater samples. Reference to the conceptual site model and professional judgement/interpretation are necessary to confirm the adequacy of background well designations for this statistical evaluation.

Table 1 lists background analytes and wells that are subject to the P-UTL method.

3.2.2 Non-Parametric Interwell Upper Tolerance Limit (NP-UTL)

A non-parametric interwell tolerance limit (NP-UTL) was calculated if the upgradient sample data generally met the following diagnostic criteria:

1. Temporal stationarity
2. No discernable data distribution
3. Spatial heterogeneity is minimal
4. Sample outliers have been removed
5. Statistical independence

Criterion Number 2, where a parametric distribution is not discernable from the sample data, primarily drives the NP-UTL selection. A NP-UTL uses the first or second highest-ranked background concentration value

to establish the UTL, depending on the number of data points. "Ranked" means the grouped background concentration values are ordered in decreasing order and assigned a rank based on this order, where a rank equal to one represents the maximum concentration value. Table 17-4 in the Unified Guidance (U.S. EPA, 2009) provides minimum coverage levels for the first and second ordered sample values with 95% confidence for different background sample numbers. Table 17-4 illustrates that the sample number controls the coverage for the NP-UTL and higher sample numbers are necessary to achieve a higher coverage. Overall, the non-parametric tolerance limit is less powerful in comparison to its parametric counterparts (but more appropriate when parametric assumptions are not met).

The NP-UTL uses the maximum ranked value in the background well, which can constitute a reporting limit value if the reporting limit is higher than detectable concentrations.

Table 1 lists background analytes and wells that are subject to the NP-UTL method.

3.2.3 Calculating the Trend-Dependent Upper Tolerance Limit (P-UTLT)

The threshold limit tests are sensitive to temporal trends, which can inflate the standard deviation. If the temporal Mann-Kendall trend was significant ($p<0.05$), and the data exhibit a parametric distribution, the 95% upper tolerance limit was calculated around the temporal trend (P-LCLT). If a trend was significant ($p<0.05$) but the data distribution was non-parametric, then a NP-LCL was calculated. The P-LCLT was calculated in ProUCL 5.1 using the ordinary least squares (OLS) module and applying the UTL calculation to the time series data, which incorporates the use of Tables 16-1 and 17-3 in the Unified Guidance (US EPA, 2009) to determine the Student's t statistic and k value, respectively.

The P-UTLTs were calculated using a 95% coverage with a 95% confidence.

Table 1 lists background analytes and wells that are subject to the P-UTLT method.

3.2.4 Double Quantification Rule

The DQR is appropriate when the analyte exhibits 100% non-detectable concentrations in the background data set. The DQR states that, for any given compliance well analyte, two consecutive detectable concentrations that are above the maximum reporting limit are sufficient evidence to declare an SSI.

It should be noted that implications exist when there are inconsistencies in reporting limit values over time and between monitoring wells. For example, when the downgradient wells reflect a higher maximum reporting limit in comparison to the background well, applying the DQR leads to uncertainty in identifying a real SSI (i.e., the statistical test results in a false negative SSI). In other cases, it is possible to have lower reporting limit values in downgradient wells, resulting in higher detections, which can trigger a false positive SSI. For these reasons, it is highly recommended that the laboratory establishes achievable and consistent analytical reporting limit values among all wells throughout the duration of the monitoring program.

Table 1 lists background analytes and wells that subject to the DQR.

3.2.5 BTV Updates

The BTV updates are completed in accordance with Section 8 and Section 2.5.2 of the Cholla SDAWP.

4.0 Results

Table 1 summarizes the GWPS selection for each Appendix IV constituent. The GWPS constitutes either: 1) the statistically calculated BTV, 2) the U.S. EPA's promulgated MCL, or 3) the risk-based alternative GWPS identified for constituents without MCLs, whichever value is higher. The selection of the GWPS did not change during this round of BTV updates. The BTV remains as the applicable GWPS for lithium, which increased from 0.34 milligrams per liter to 0.418 milligrams per liter. The remaining Appendix IV constituents are subject to the U.S. EPA's promulgated MCL or the risk-based alternative GWPS.

Appendix B summarizes the results of the EDA of the Appendix IV groundwater data.

5.0 Recommendations

The laboratory should achieve reporting limits below the U.S. EPA's promulgated MCLs and maintain a constant reporting limit for each analyte over time for all monitoring wells – background and compliance. This recommendation will improve the certainty of detection of temporal trends in the groundwater sample data while also decreasing the probability for declaring a false negative or false positive SSIs when applying statistical tests, especially the DQR.

6.0 REFERENCES

Wood Environment & Infrastructure, Inc. (Wood), 2018a. CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the Fly Ash Pond. Cholla Power Plant. Navajo County, Arizona. Prepared for Arizona Public Service. October 15, 2018.

Wood, 2018b. CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the Bottom Ash Pond. Cholla Power Plant. Navajo County, Arizona. Prepared for Arizona Public Service. October 15, 2018.

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Wood, 2020. Alternate Source Demonstration for Arsenic and Cobalt at the Fly Ash Pond (FAP). Cholla Power Plant. Navajo County, Arizona. Prepared for Arizona Public Service. January 31, 2020.

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United States Environmental Protection Agency (EPA), 2015. *ProUCL (Version 5.1.1) User Guide, Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations*. EPA/600/R-07/041. Washington D.C. October 2015.

EPA, 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007. Environmental Protection Agency Office of Resource Conservation and Recovery.

ATTACHMENTS

Table 1 – GWPS selection for the FAP/BAP

Appendix A – ProUCL Data Upload Table
Appendix B – ProUCL Output Files

TABLES

Table 1
GWPS Selection for the Cholla Fly Ash Pond and Bottom Ash Pond
Appendix IV Statistical Comparison

Grouped Background Wells	Constituent	US EPA MCL	Alternative Risk-Based GWPS	Background Threshold Value (Calculation Method[1,2])	Units	GWPS Selection[3,4]
M-64A	Antimony	**0.006**	---	0.00013 (NP-UTL)	mg/L	US EPA MCL
M-64A	Arsenic	**0.01**	---	0.0084 (P-UTL)	mg/L	US EPA MCL
M-64A	Barium	**2**	---	0.036 (NP-UTL)	mg/L	US EPA MCL
M-64A	Beryllium	**0.004**	---	0.001 (DQR)	mg/L	US EPA MCL
M-64A	Cadmium	**0.005**	---	0.00011 (NP-UTL)	mg/L	US EPA MCL
M-64A	Chromium	**0.1**	---	0.0022 (NP-UTL)	mg/L	US EPA MCL
M-64A	Cobalt	---	**0.006**	0.0024 (NP-UTL)	mg/L	Alternative Risk-Based GWPS
M-64A	Fluoride	**4**	---	0.38 (NP-UTL)	mg/L	US EPA MCL
M-64A	Lead	---	**0.015**	0.001 (NP-UTL)	mg/L	Alternative Risk-Based GWPS
M-64A	Lithium	---	0.04	**0.418 (P-UTLT)**	mg/L	BTV
M-64A	Mercury	**0.002**	---	0.0002 (DQR)	mg/L	US EPA MCL
M-64A	Molybdenum	---	**0.1**	0.007 (P-UTLT)	mg/L	Alternative Risk-Based GWPS
M-64A	Selenium	**0.05**	---	0.0044 (NP-UTL)	mg/L	US EPA MCL
M-64A	Thallium	**0.002**	---	0.001 (DQR)	mg/L	US EPA MCL
M-64A	Combined Radium	**5**	---	1.6 (NP-UTL)	pCi/L	US EPA MCL

Notes:

BTV = Background Threshold Value

GWPS = Groundwater Protection Standard

US EPA MCL = United States Environmental Protection Agency Maximum Contaminant Level under the Safe Drinking Water Act

[1] Double Quantification Rule (DQR), Parametric Upper Tolerance Limit (P-UTL), Non-Parametric Upper Tolerance Limit (NP-UTL)

[2] The DQR BTV represents the maximum reporting limit value

[3] The GWPS selection represents the highest value between the US EPA MCL, the Alternative Risk-Based GWPS and the BTV

[4] GWPS selection updated October 2024

APPENDIX A

PROUCL DATA UPLOAD TABLE

Appendix A - PROUCL Upload Table

BACKGROUND WELL - M-64A

Well	Sample Date	Antimony	D_Antimony	Arsenic	D_Arsenic	Barium	D_Barium	Beryllium	D_Beryllium	Cadmium	D_Cadmium	Chromium	D_Chromium	Cobalt	D_Cobalt	Fluoride
M-64A	2/20/2017	0.001	0	0.00094	1	0.036	1	0.001	0	0.00011	1	0.0021	1	0.0024	1	0.8
M-64A	4/12/2017	0.001	0	0.0026	1	0.019	1	0.001	0	0.0001	0	0.0015	1	0.00082	1	0.8
M-64A	4/25/2017	0.001	0	0.0017	1	0.015	1	0.001	0	0.0001	0	0.0005	0	0.00056	1	0.8
M-64A	5/18/2017	0.001	0	0.0016	1	0.012	1	0.001	0	0.0001	0	0.0005	0	0.0005	0	0.8
M-64A	5/24/2017	0.001	0	0.0023	1	0.014	1	0.001	0	0.0001	0	0.00063	1	0.00052	1	0.8
M-64A	6/30/2017	0.001	0	0.0033	1	0.017	1	0.001	0	0.0001	0	0.0005	0	0.0011	1	0.8
M-64A	7/27/2017	0.002	0	0.0028	1	0.017	1	0.001	0	0.0002	0	0.001	0	0.001	0	0.8
M-64A	9/7/2017	0.004	0	0.0025	1	0.017	1	0.001	0	0.0004	0	0.004	0	0.002	0	0.8
M-64A	12/8/2017															0.8
M-64A	2/15/2018	0.002	0	0.001	0	0.015	1	0.001	0			0.0022	1	0.0005	0	0.8
M-64A	5/19/2018	0.002	0	0.0012	1	0.012	1					0.002	0	0.001	0	0.8
M-64A	10/22/2018			0.0013	1	0.011	1					0.001	0	0.0005	0	0.8
M-64A	2/13/2019	0.001	0	0.00089	1	0.012	1	0.001	0			0.001	0	0.0005	0	0.8
M-64A	4/11/2019			0.00058	1	0.011	1					0.001	0	0.0005	0	0.8
M-64A	4/16/2019			0.00058	1	0.012	1					0.001	0	0.0005	0	0.8
M-64A	8/1/2019															0.8
M-64A	10/24/2019	0.002	0	0.0018	1	0.013	1	0.001	0			0.002	0	0.001	0	0.8
M-64A	5/6/2020			0.00086	1	0.013	1	0.001	0			0.001	0	0.0005	0	0.8
M-64A	10/24/2020	0.002	0	0.0036	1	0.012	1	0.001	0			0.002	0	0.00025	1	0.28
M-64A	4/15/2021	0.002	0	0.0021	1	0.012	1	0.001	0			0.002	0	0.001	0	0.21
M-64A	10/22/2021	0.00013	1	0.0005	0	0.012	1	0.001	0			0.0005	1	0.0005	0	0.38
M-64A	4/26/2022	0.000054	1	0.0015	1	0.011	1	0.001	0			0.001	0	0.0005	0	0.34
M-64A	10/22/2022	0.001	0	0.00094	1	0.013	1	0.001	0	0.0001	0	0.001	0	0.0005	0	0.8
M-64A	4/17/2023	0.01	0	0.0037	1	0.014	1	0.001	0	0.001	0	0.01	0	0.005	0	10
M-64A	10/11/2023	0.01	0	0.0073	1	0.012	1	0.001	0	0.001	0	0.01	0	0.005	0	0.4
M-64A	4/18/2024	0.001	0	0.0016	1	0.012	1	0.001	0	0.0001	0	0.001	0	0.0005	0	0.4
M-64A	5/28/2024															

Appendix A - PROUCL Upload Table

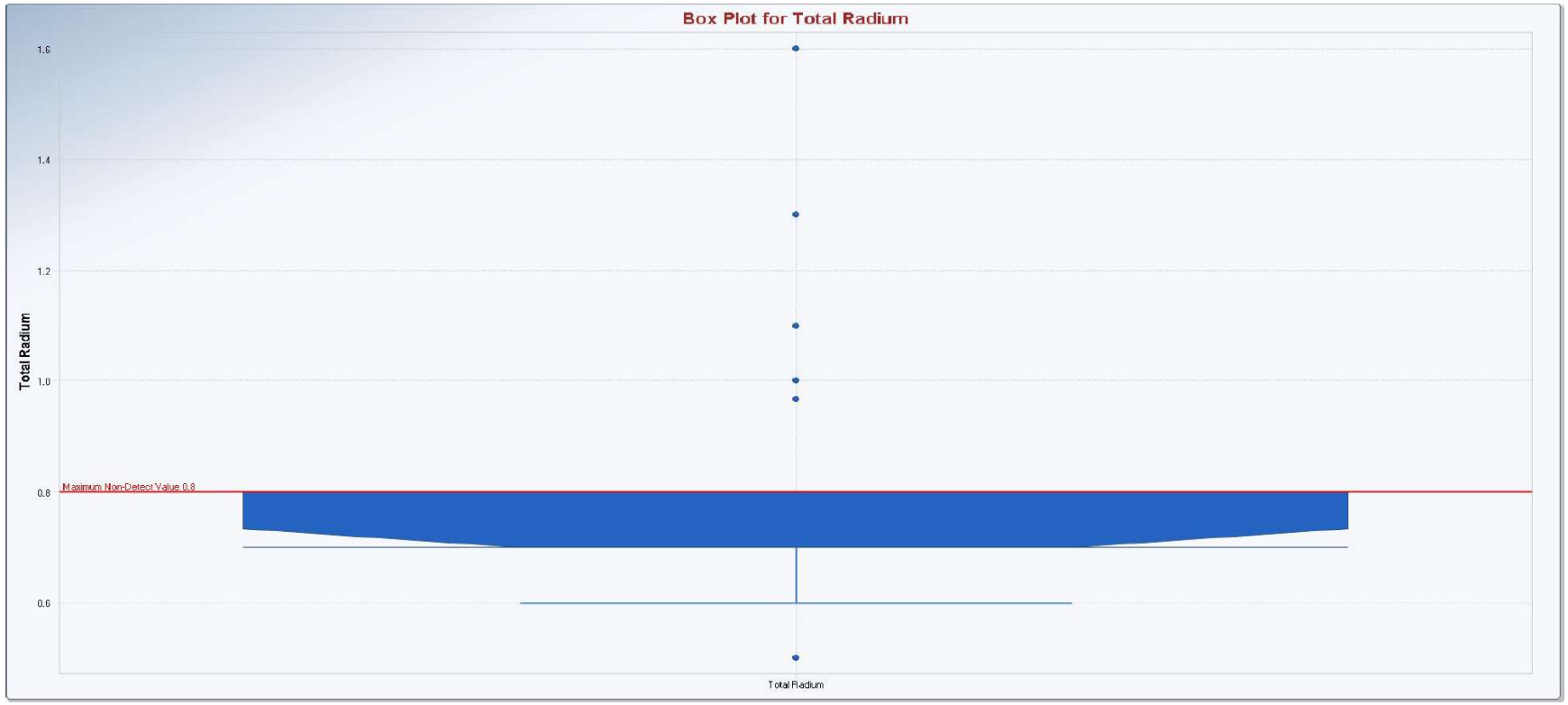
BACKGROUND WELL - M-64A

Well	Sample Date	D_Fluoride	Lead	D_Lead	Lithium	D_Lithium	Mercury	D_Mercury	Molybdenum	D_Molybdenum	Selenium	D_Selenium	Thallium	D_Thallium	Total Radium	D_Total Radium
M-64A	2/20/2017	0	0.0005	0	0.27	1	0.0002	0	0.0065	1	0.00082	1	0.0001	0	0.8	1
M-64A	4/12/2017	0	0.00071	1	0.25	1	0.0002	0	0.0053	1	0.0005	0	0.0001	0	0.8	1
M-64A	4/25/2017	0	0.0005	0	0.27	1	0.0002	0	0.005	1	0.0005	0	0.0001	0	1.6	1
M-64A	5/18/2017	0	0.0005	0	0.28	1	0.0002	0	0.0042	1	0.0005	0	0.0001	0	1.3	1
M-64A	5/24/2017	0	0.002	0	0.27	1	0.0002	0	0.0051	1	0.0005	0	0.0004	0	1.1	1
M-64A	6/30/2017	0	0.0005	0	0.25	1	0.0002	0	0.005	1	0.0005	0	0.0001	0	0.7	0
M-64A	7/27/2017	0	0.001	0	0.25	1	0.0002	0	0.0051	1	0.001	0	0.0002	0	0.7	0
M-64A	9/7/2017	0	0.002	0	0.26	1	0.0002	0	0.0059	1	0.002	0	0.0004	0	0.7	0
M-64A	12/8/2017	0														
M-64A	2/15/2018	0	0.001	0	0.27	1	0.0002	0	0.0058	1	0.0005	0	0.0002	0	0.966	1
M-64A	5/19/2018	0	0.001	0	0.26	1			0.0055	1	0.001	0	0.0002	0	0.7	0
M-64A	10/22/2018	0	0.0005	0	0.25	1			0.0052	1	0.0005	0	0.0001	0		
M-64A	2/13/2019	0	0.0005	0	0.29	1	0.0002	0	0.0049	1	0.00052	1	0.0001	0	0.6	0
M-64A	4/11/2019	0	0.0005	0	0.27	1			0.005	1	0.00053	1				
M-64A	4/16/2019	0	0.0005	0	0.25	1			0.005	1	0.00078	1	0.0001	0	0.7	0
M-64A	8/1/2019	0														
M-64A	10/24/2019	0	0.001	0	0.26	1	0.0002	0	0.0059	1	0.001	0	0.0002	0		
M-64A	5/6/2020	0	0.0005	0	0.47	1			0.0043	1	0.001	0			0.8	0
M-64A	10/24/2020	1	0.001	1	0.31	1	0.0002	0	0.0051	1	0.0044	1	0.0002	0	0.8	0
M-64A	4/15/2021	1	0.001	0	0.3	1	0.0002	0	0.0049	1	0.0022	1	0.0002	0	0.7	0
M-64A	10/22/2021	1	0.0005	0	0.28	1	0.0002	0	0.0046	1	0.0002	1	0.0001	0	0.6	0
M-64A	4/26/2022	1	0.0005	0	0.28	1	0.0002	0	0.0041	1	0.00075	1	0.0001	0	1	1
M-64A	10/22/2022	0	0.0005	0	0.25	1	0.0002	0	0.042	1	0.00067	1	0.0001	0	0.6	0
M-64A	4/17/2023	0	0.005	0	0.29	1	0.0002	0	0.0044	1	0.005	0	0.001	0	0.5	1
M-64A	10/11/2023	0	0.005	0	0.28	1	0.0002	0	0.005	0	0.005	0	0.001	0	0.7	1
M-64A	4/18/2024	0	0.0005	0	0.4	0	0.0002	0	0.004	1	0.0012	1	0.0001	0	0.8	0
M-64A	5/28/2024				0.28	1										

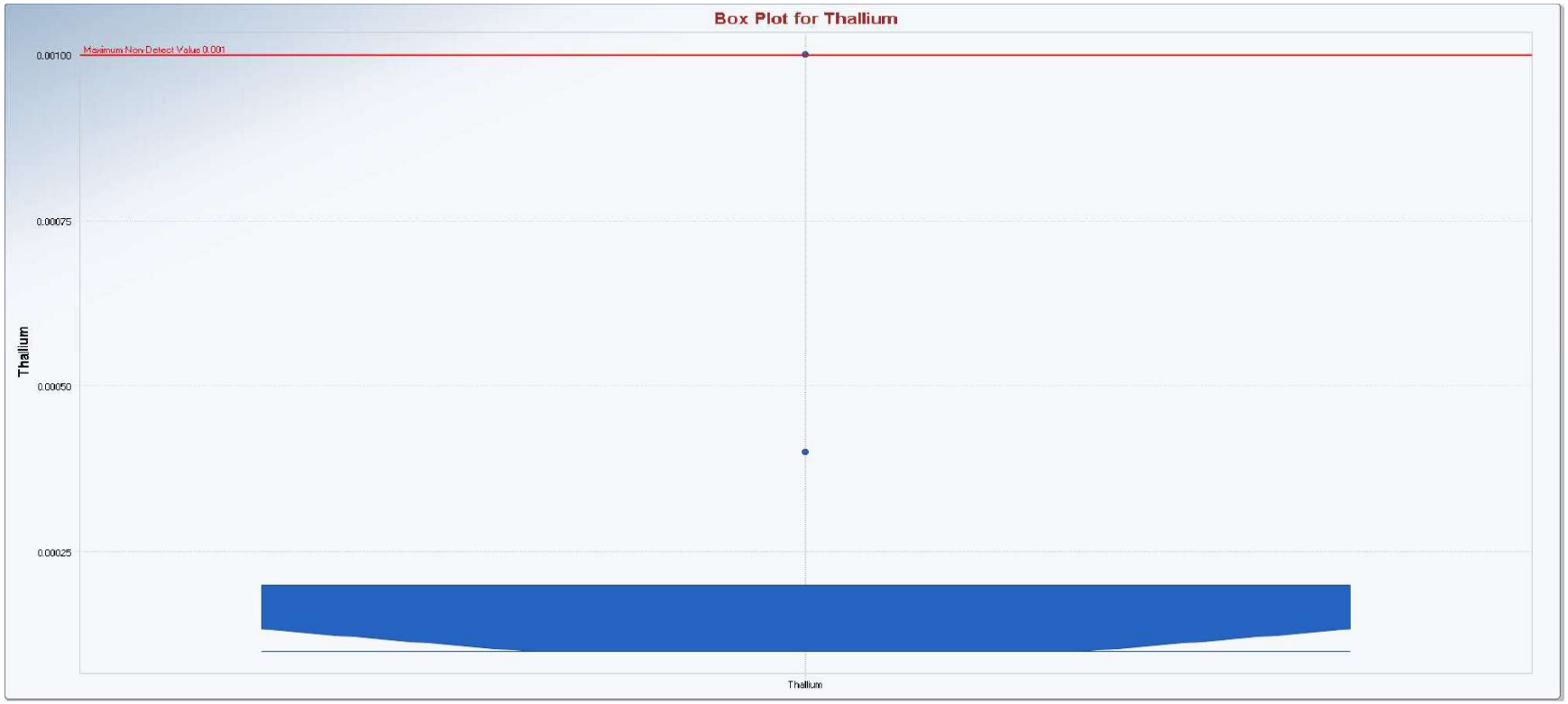
APPENDIX B

PROUCL EDA OUTPUT FILES

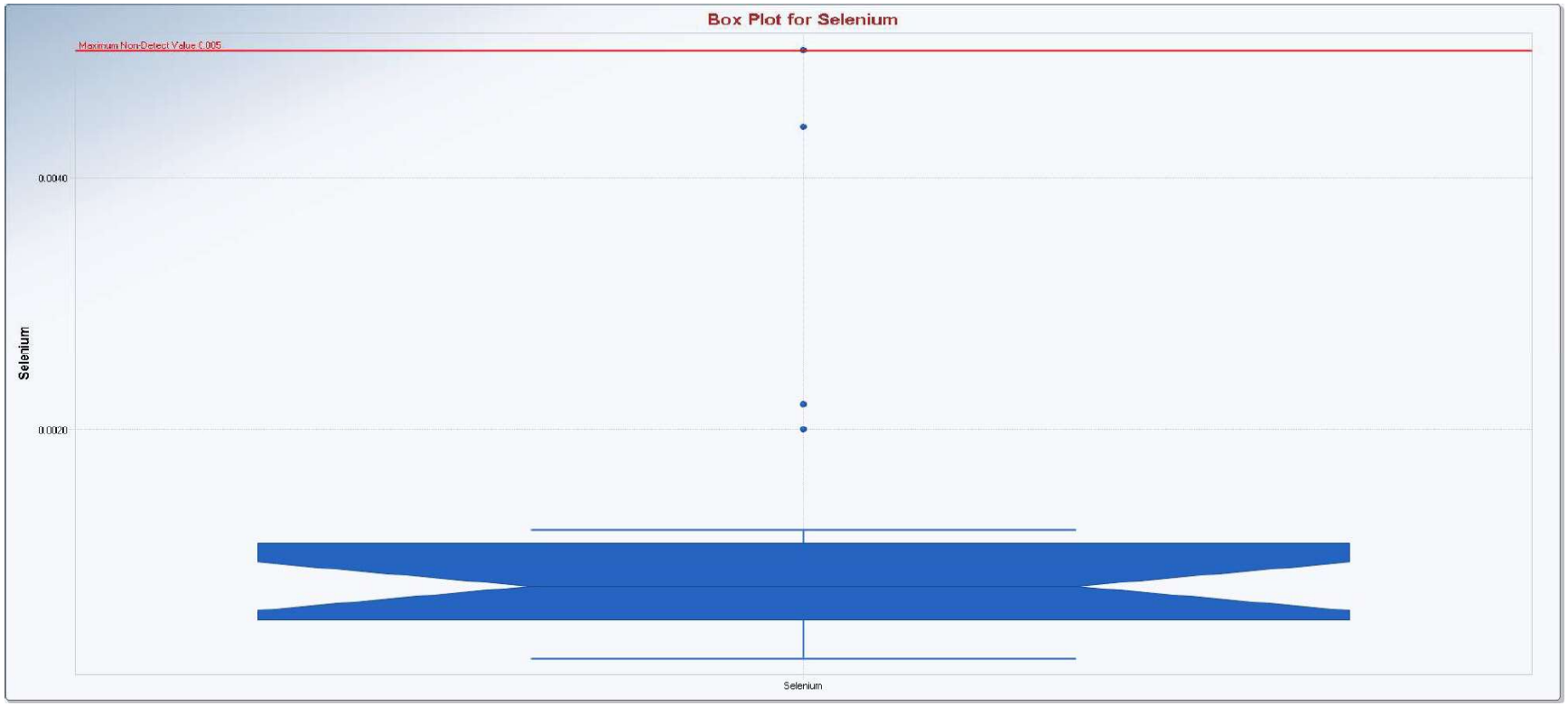
Appendix B
Box and Whisker Plots



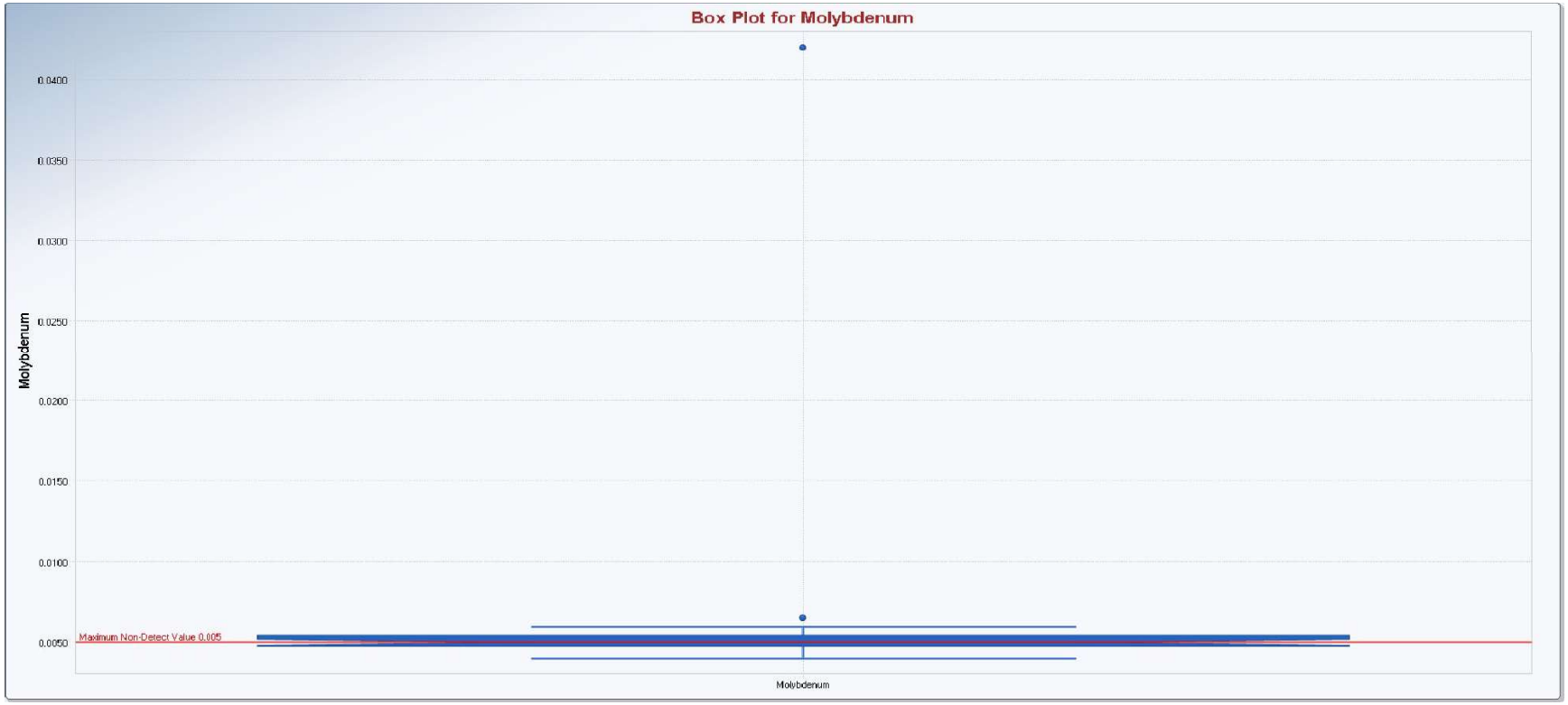
Appendix B
Box and Whisker Plots



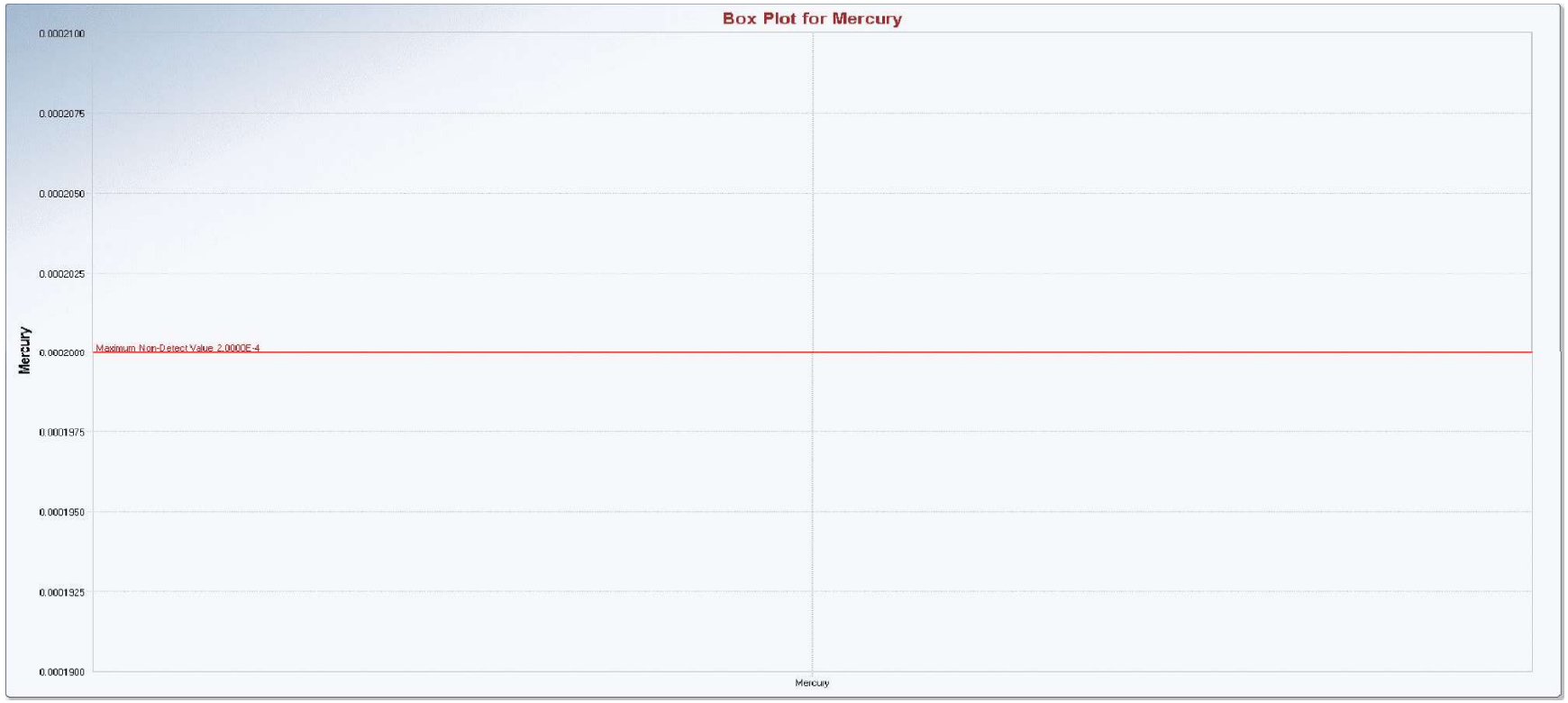
Appendix B
Box and Whisker Plots



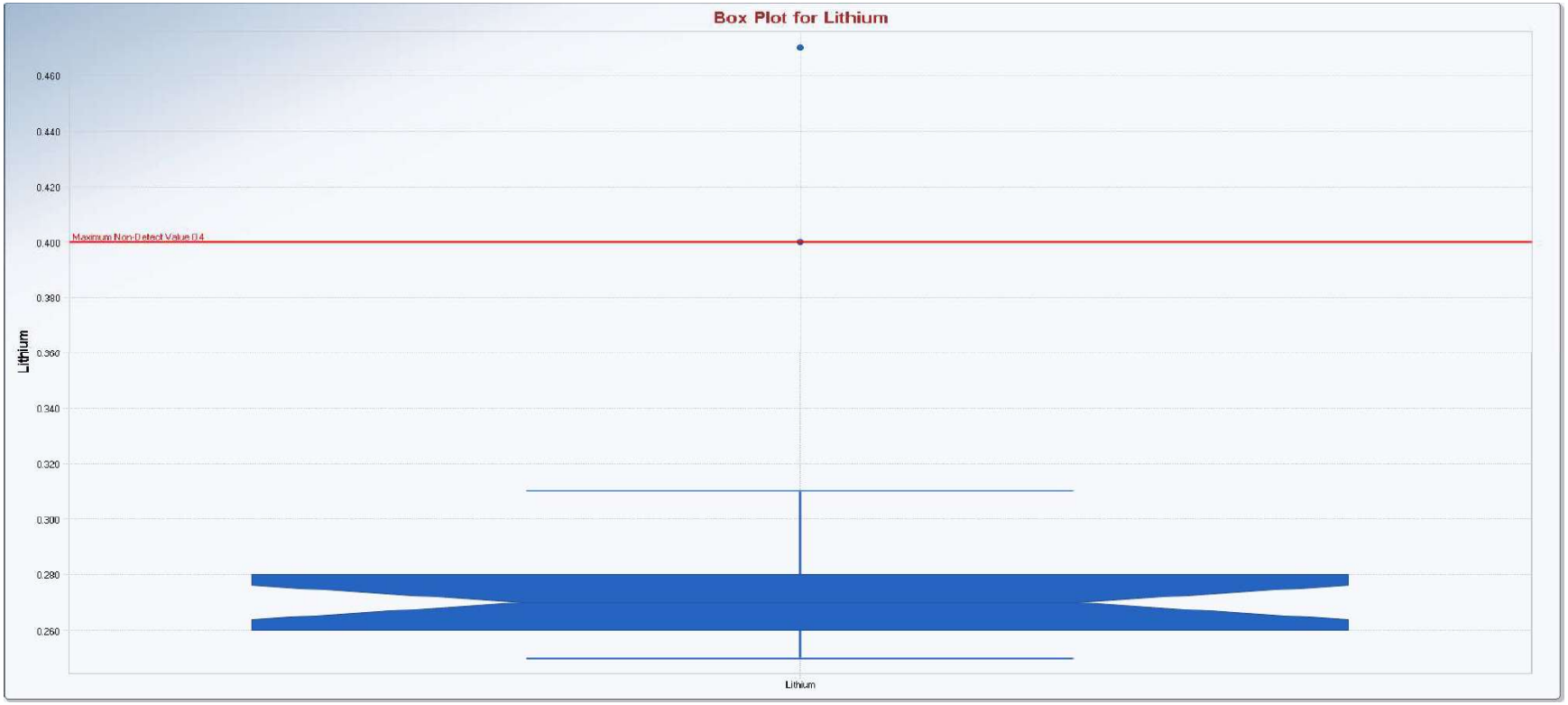
Appendix B
Box and Whisker Plots



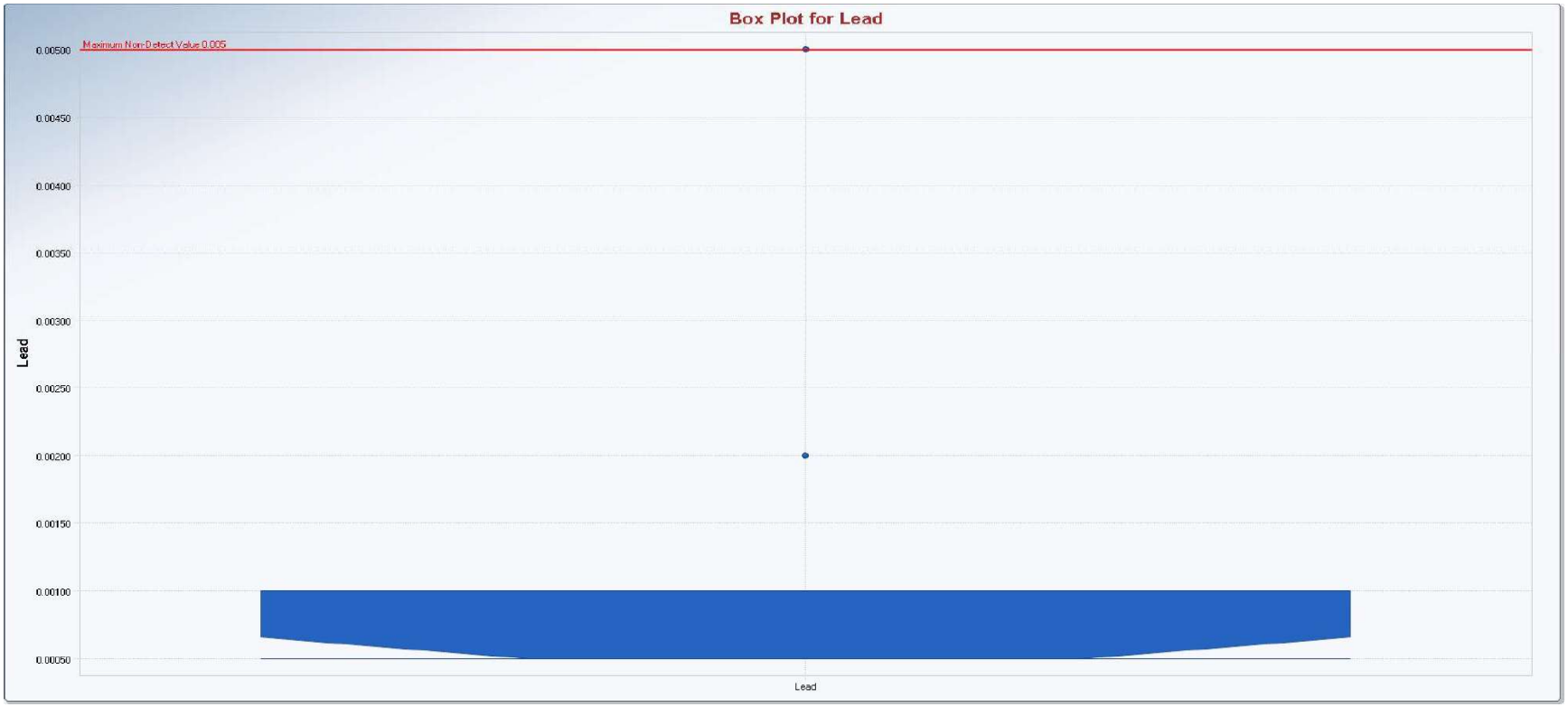
Appendix B
Box and Whisker Plots



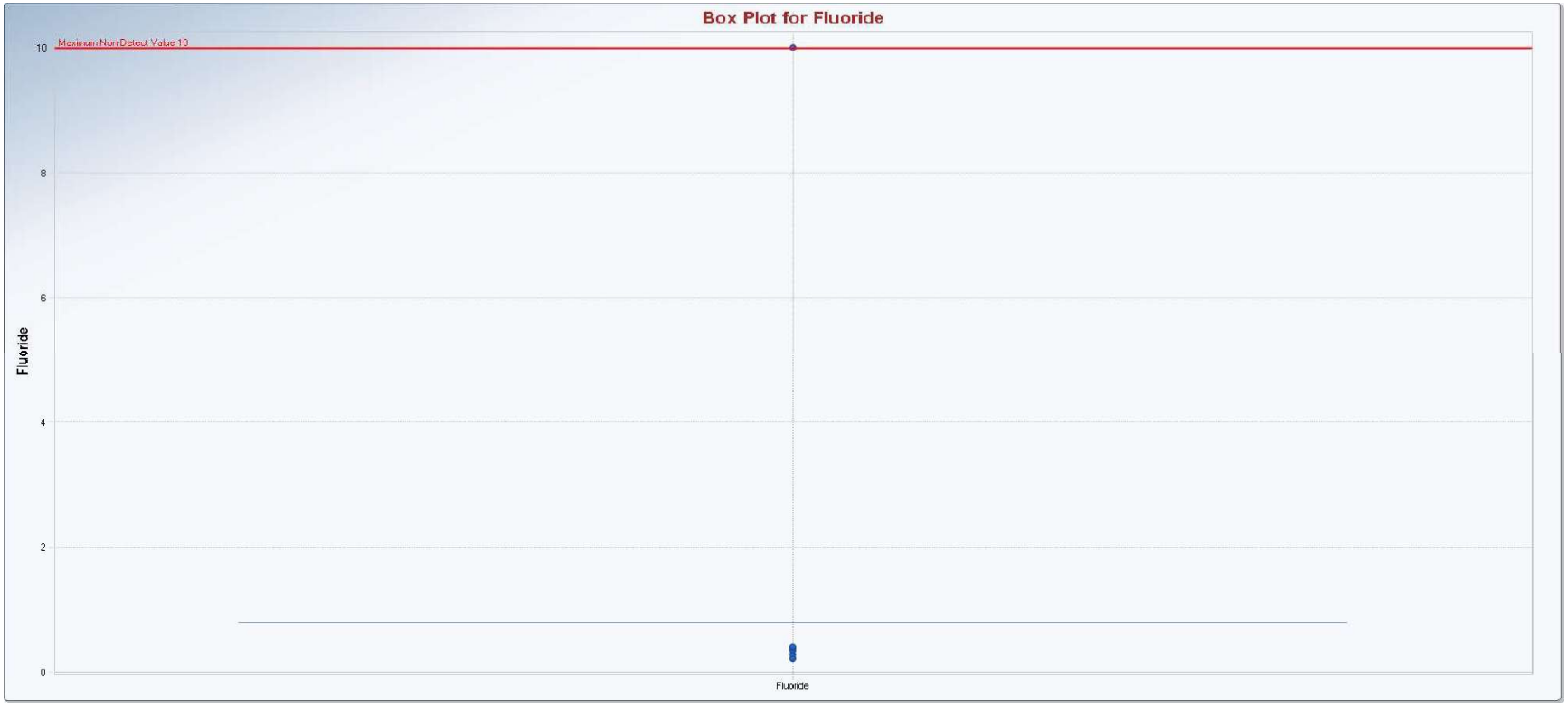
Appendix B
Box and Whisker Plots



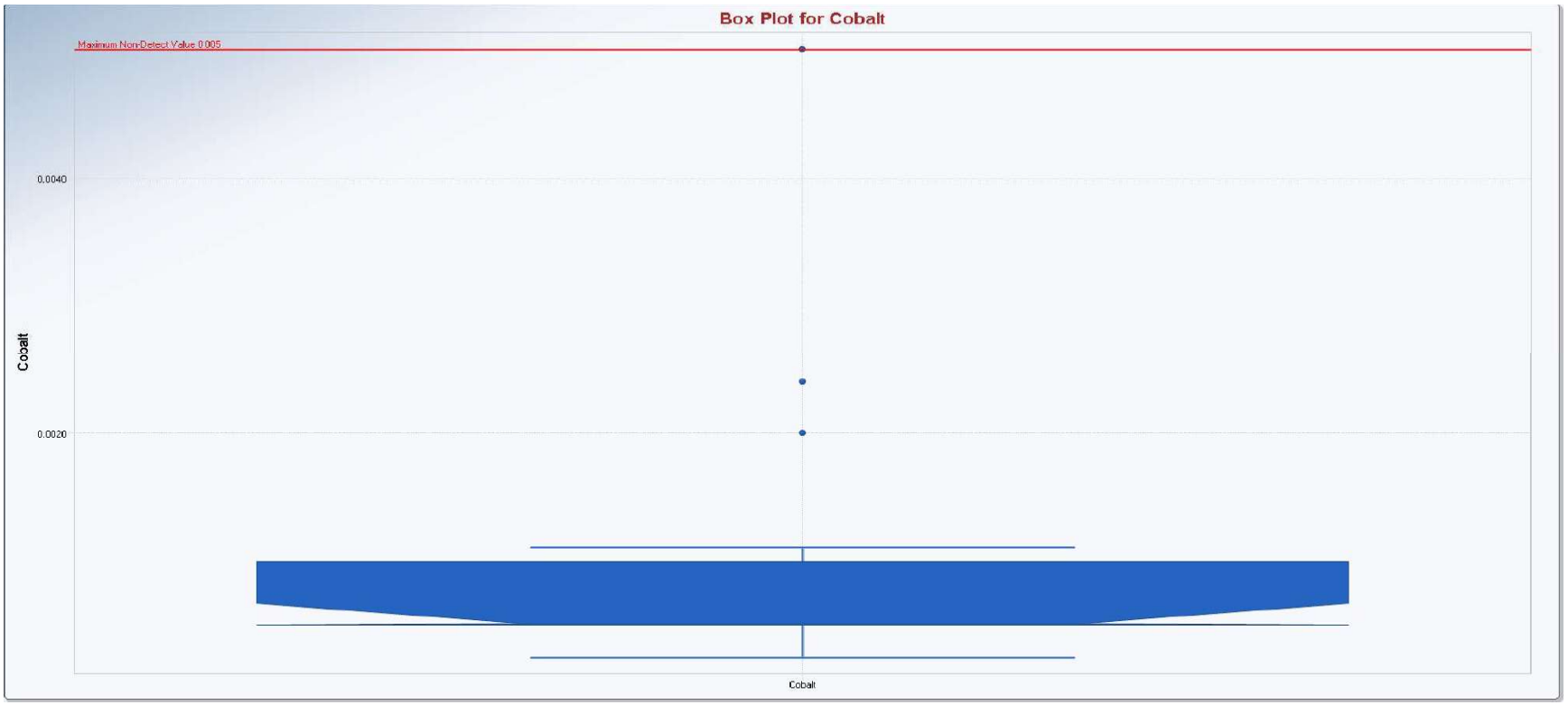
Appendix B
Box and Whisker Plots



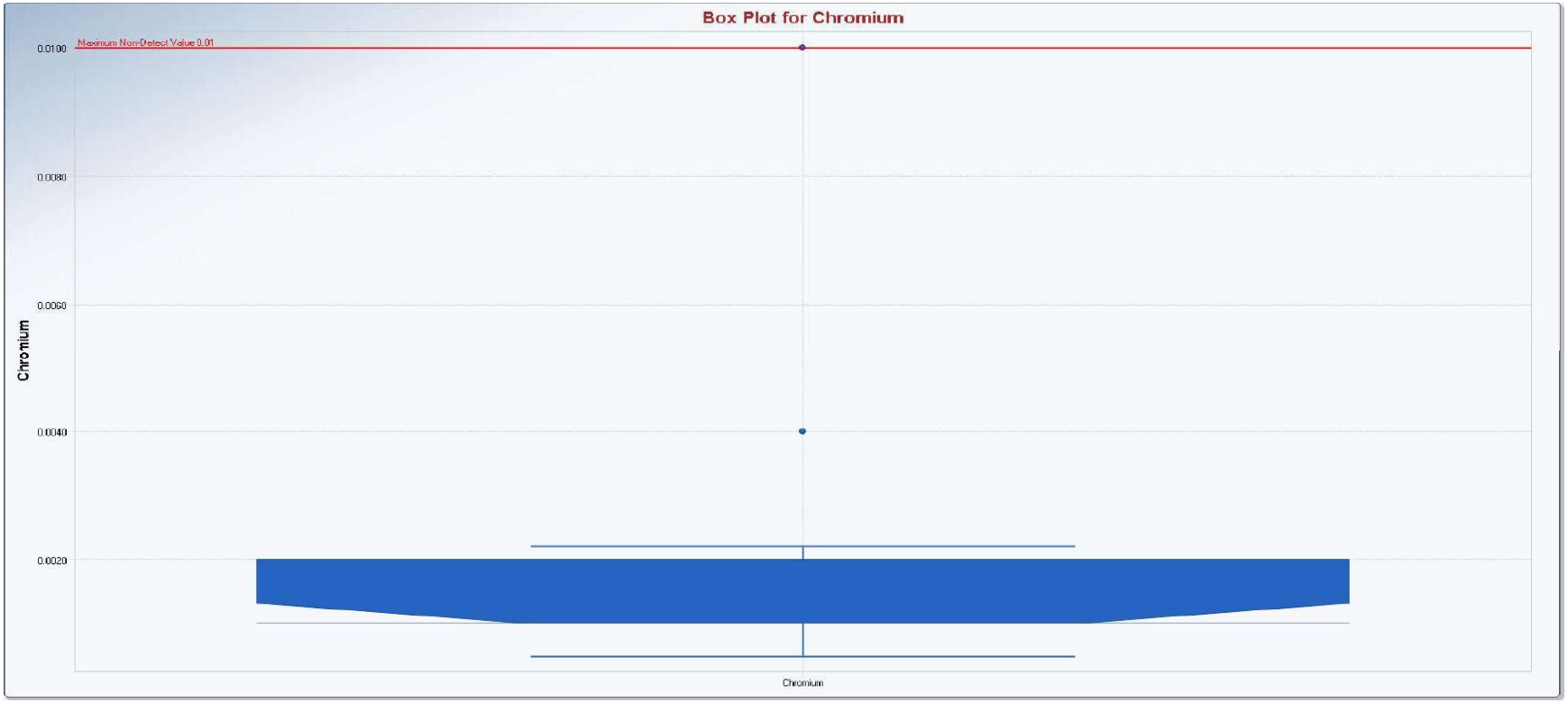
Appendix B
Box and Whisker Plots



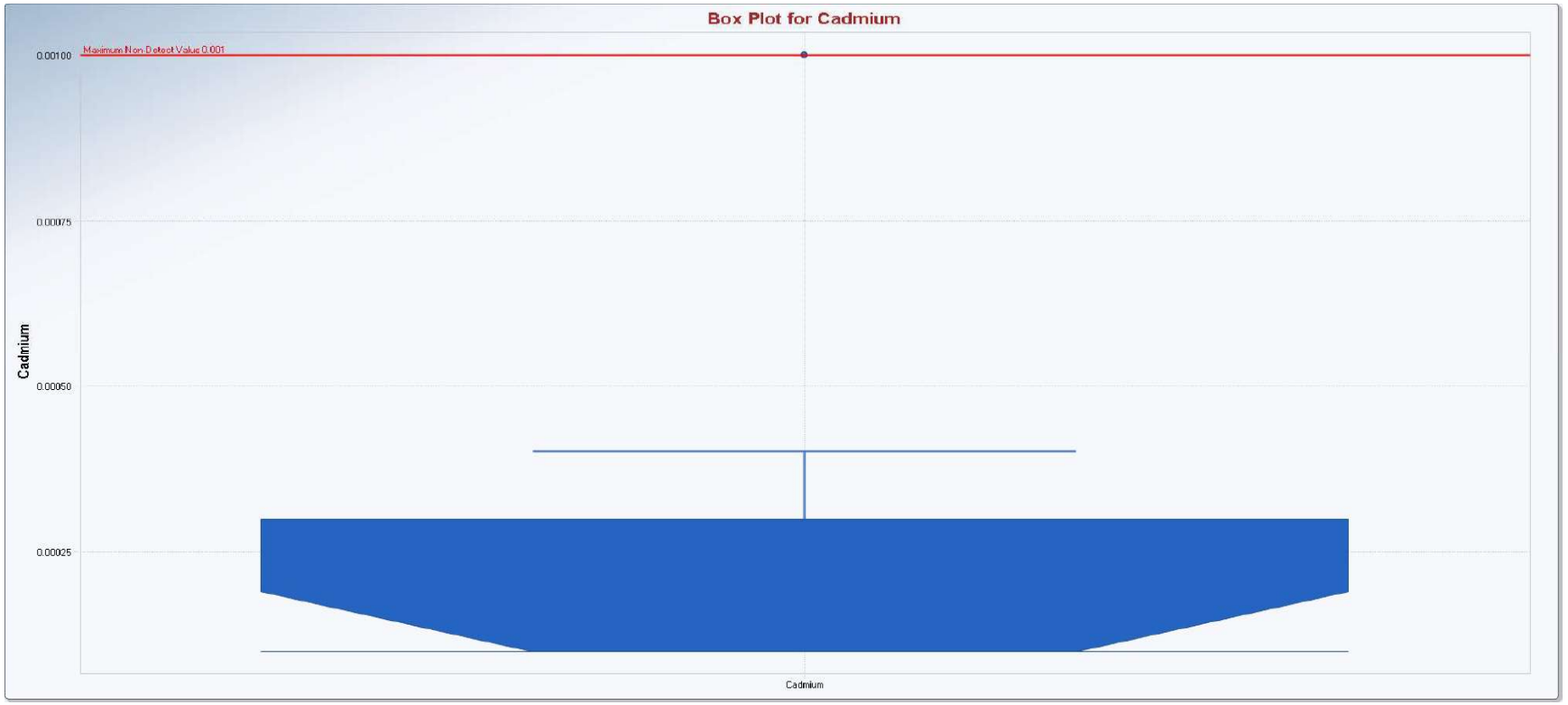
Appendix B
Box and Whisker Plots



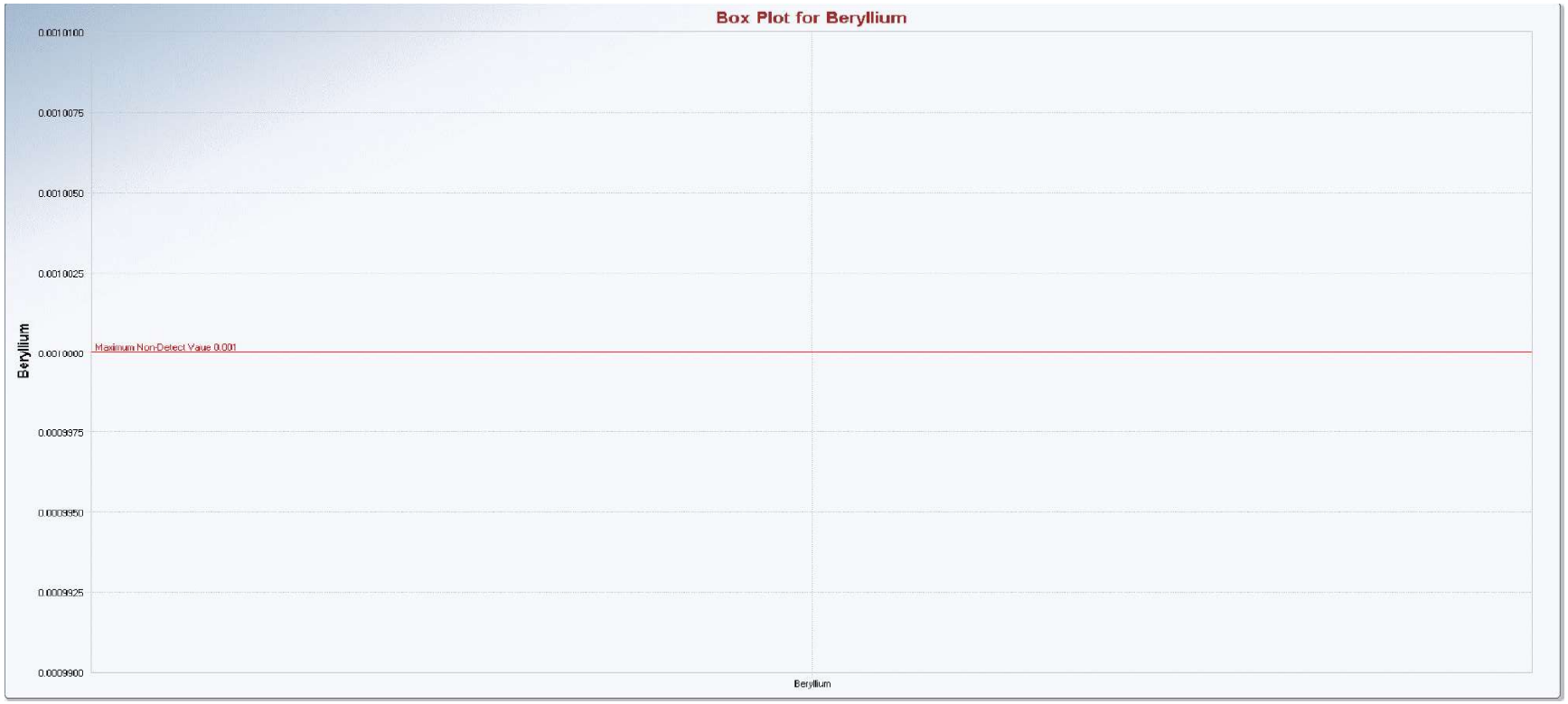
Appendix B
Box and Whisker Plots



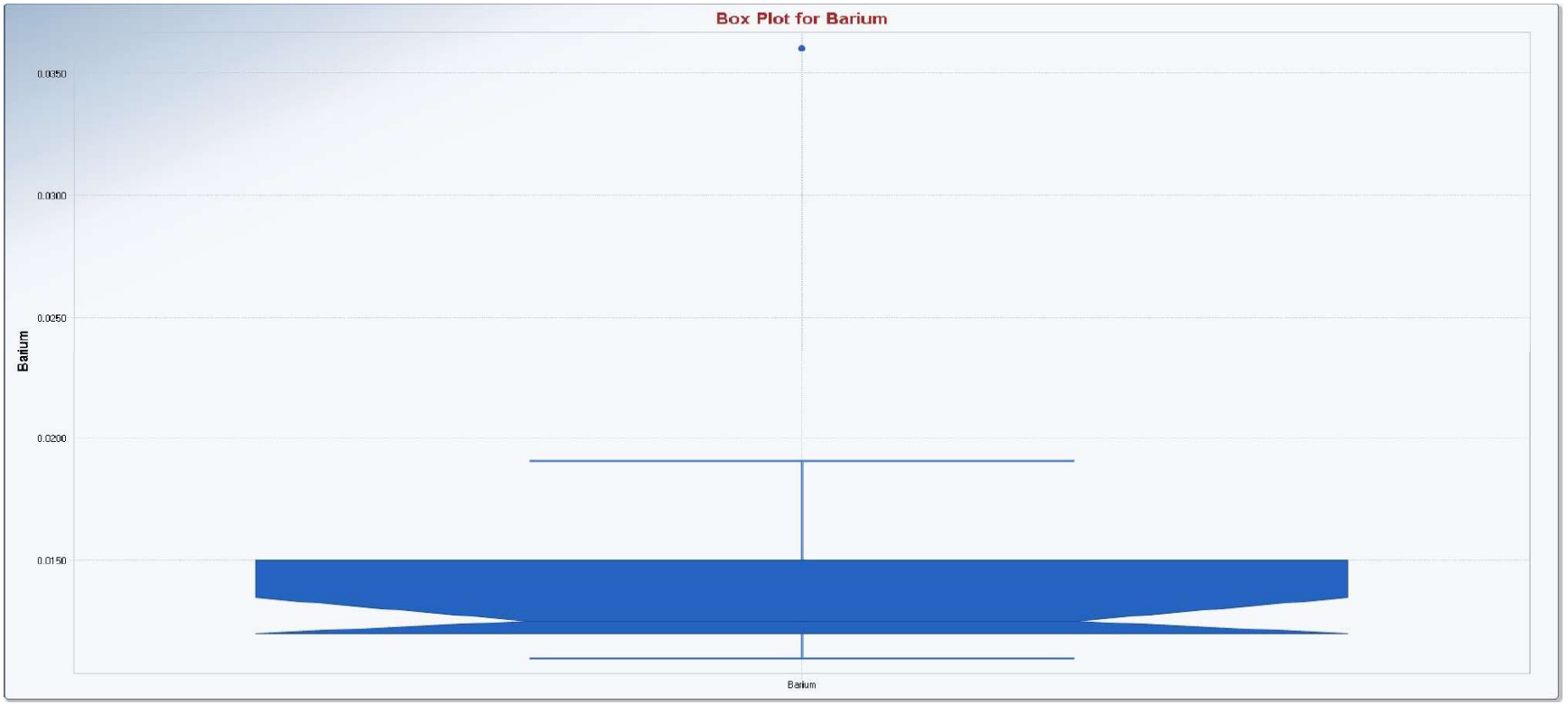
Appendix B
Box and Whisker Plots



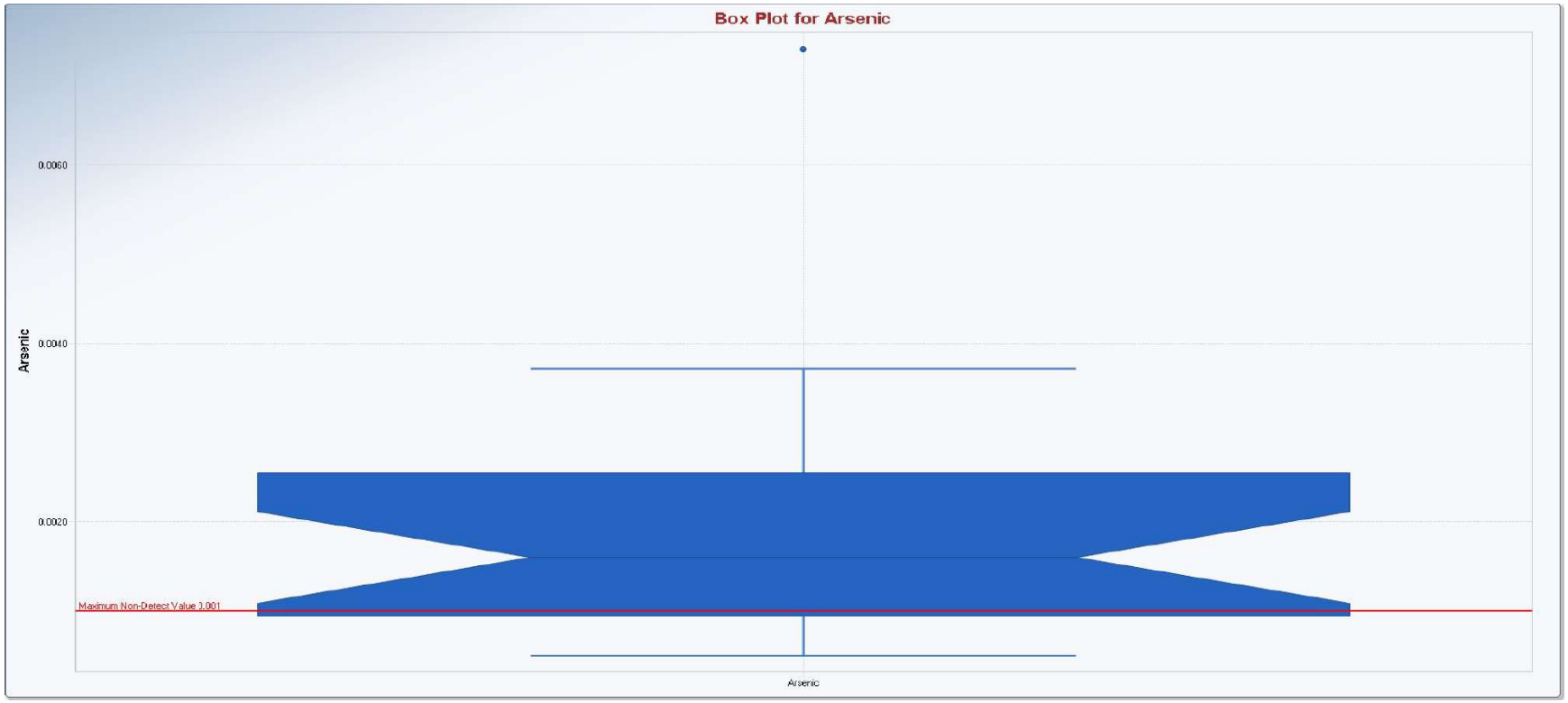
Appendix B
Box and Whisker Plots



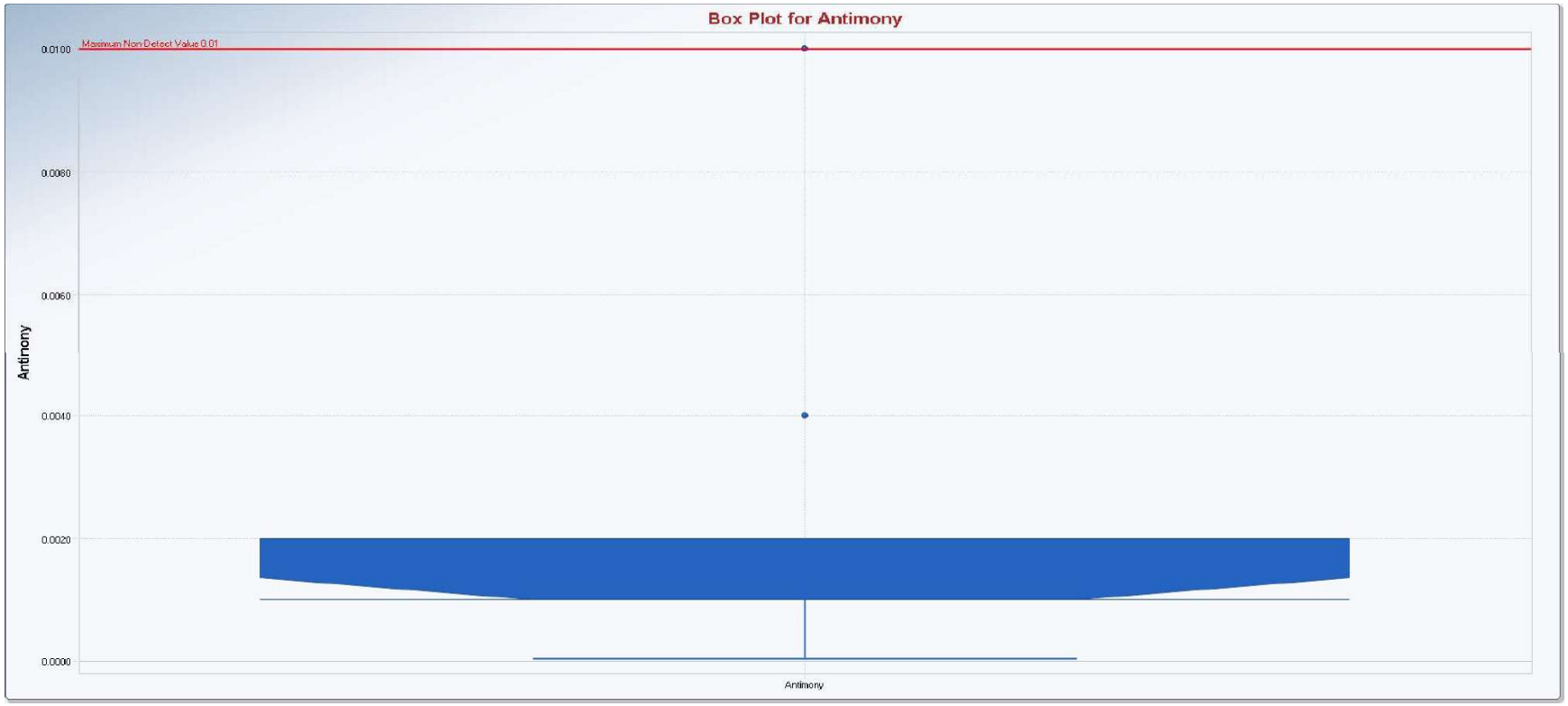
Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Outlier Statistics

	Outlier Tests for Selected Variables excluding nondetects
User Selected Options	
Date/Time of Computation	ProUCL 5.110/3/2024 10:49:35 AM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF

No Outlier Test for Antimony

Dixon's Outlier Test for Arsenic

Total N = 24
Number NDs = 2
Number Detects = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514
Note: NDs excluded from Outlier Test

1. Data Value 0.0073 is a Potential Outlier (Upper Tail)?

Test Statistic: 0.575

For 10% significance level, 0.0073 is an outlier.
For 5% significance level, 0.0073 is an outlier.
For 1% significance level, 0.0073 is an outlier.

2. Data Value 0.00058 is a Potential Outlier (Lower Tail)?

Test Statistic: 0.093

For 10% significance level, 0.00058 is not an outlier.
For 5% significance level, 0.00058 is not an outlier.
For 1% significance level, 0.00058 is not an outlier.

Dixon's Outlier Test for Barium

Total N = 24
Number NDs = 0

Appendix B
Outlier Statistics

Number Detects = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
Note: NDs excluded from Outlier Test
1. Data Value 0.036 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.760
For 10% significance level, 0.036 is an outlier.
For 5% significance level, 0.036 is an outlier.
For 1% significance level, 0.036 is an outlier.
2. Data Value 0.011 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.000
For 10% significance level, 0.011 is not an outlier.
For 5% significance level, 0.011 is not an outlier.
For 1% significance level, 0.011 is not an outlier.
No Outlier Test for Beryllium
No Outlier Test for Cadmium
Dixon's Outlier Test for Chromium
Total N = 24
Number NDs = 19
Number Detects = 5
10% critical value: 0.557
5% critical value: 0.642
1% critical value: 0.78
Note: NDs excluded from Outlier Test
1. Data Value 0.0022 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.059

Appendix B
Outlier Statistics

For 10% significance level, 0.0022 is not an outlier.							
For 5% significance level, 0.0022 is not an outlier.							
For 1% significance level, 0.0022 is not an outlier.							
2. Data Value 0.0005 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.076							
For 10% significance level, 0.0005 is not an outlier.							
For 5% significance level, 0.0005 is not an outlier.							
For 1% significance level, 0.0005 is not an outlier.							
Dixon's Outlier Test for Cobalt							
Total N = 24							
Number NDs = 18							
Number Detects = 6							
10% critical value: 0.482							
5% critical value: 0.56							
1% critical value: 0.698							
Note: NDs excluded from Outlier Test							
1. Data Value 0.0024 is a Potential Outlier (Upper Tail)?							
Test Statistic: 0.605							
For 10% significance level, 0.0024 is an outlier.							
For 5% significance level, 0.0024 is an outlier.							
For 1% significance level, 0.0024 is not an outlier.							
2. Data Value 0.00025 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.126							
For 10% significance level, 0.00025 is not an outlier.							
For 5% significance level, 0.00025 is not an outlier.							
For 1% significance level, 0.00025 is not an outlier.							

Appendix B
Outlier Statistics

Dixon's Outlier Test for Fluoride
Total N = 26
Number NDs = 22
Number Detects = 4
10% critical value: 0.679
5% critical value: 0.765
1% critical value: 0.889
Note: NDs excluded from Outlier Test
1. Data Value 0.38 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.235
For 10% significance level, 0.38 is not an outlier.
For 5% significance level, 0.38 is not an outlier.
For 1% significance level, 0.38 is not an outlier.
2. Data Value 0.21 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.412
For 10% significance level, 0.21 is not an outlier.
For 5% significance level, 0.21 is not an outlier.
For 1% significance level, 0.21 is not an outlier.
No Outlier Test for Lead
Dixon's Outlier Test for Lithium
Total N = 25
Number NDs = 1
Number Detects = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
Note: NDs excluded from Outlier Test

Appendix B
Outlier Statistics

1. Data Value 0.47 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.773
For 10% significance level, 0.47 is an outlier.
For 5% significance level, 0.47 is an outlier.
For 1% significance level, 0.47 is an outlier.
2. Data Value 0.25 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.000
For 10% significance level, 0.25 is not an outlier.
For 5% significance level, 0.25 is not an outlier.
For 1% significance level, 0.25 is not an outlier.
No Outlier Test for Mercury
Dixon's Outlier Test for Molybdenum
Total N = 24
Number NDs = 1
Number Detects = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
Note: NDs excluded from Outlier Test
1. Data Value 0.042 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.955
For 10% significance level, 0.042 is an outlier.
For 5% significance level, 0.042 is an outlier.
For 1% significance level, 0.042 is an outlier.
2. Data Value 0.004 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.105

Appendix B
Outlier Statistics

For 10% significance level, 0.004 is not an outlier.							
For 5% significance level, 0.004 is not an outlier.							
For 1% significance level, 0.004 is not an outlier.							
Dixon's Outlier Test for Selenium							
Total N = 24							
Number NDs = 14							
Number Detects = 10							
10% critical value: 0.409							
5% critical value: 0.477							
1% critical value: 0.597							
Note: NDs excluded from Outlier Test							
1. Data Value 0.0044 is a Potential Outlier (Upper Tail)?							
Test Statistic: 0.567							
For 10% significance level, 0.0044 is an outlier.							
For 5% significance level, 0.0044 is an outlier.							
For 1% significance level, 0.0044 is not an outlier.							
2. Data Value 0.0002 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.160							
For 10% significance level, 0.0002 is not an outlier.							
For 5% significance level, 0.0002 is not an outlier.							
For 1% significance level, 0.0002 is not an outlier.							
No Outlier Test for Thallium							
Dixon's Outlier Test for Total Radium							
Total N = 21							
Number NDs = 12							
Number Detects = 9							

Appendix B
Outlier Statistics

10% critical value: 0.441	
5% critical value: 0.512	
1% critical value: 0.635	
Note: NDs excluded from Outlier Test	
1. Data Value 1.6 is a Potential Outlier (Upper Tail)?	
Test Statistic: 0.333	
For 10% significance level, 1.6 is not an outlier.	
For 5% significance level, 1.6 is not an outlier.	
For 1% significance level, 1.6 is not an outlier.	
2. Data Value 0.5 is a Potential Outlier (Lower Tail)?	
Test Statistic: 0.250	
For 10% significance level, 0.5 is not an outlier.	
For 5% significance level, 0.5 is not an outlier.	
For 1% significance level, 0.5 is not an outlier.	
	Outlier Tests for Selected Variables excluding nondetects
User Selected Options	
Date/Time of Computation	ProUCL 5.110/3/2024 11:59:15 AM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Dixon's Outlier Test for Arsenic (outlier removed)	
Total N = 23	
Number NDs = 2	
Number Detects = 21	
10% critical value: 0.391	
5% critical value: 0.44	
1% critical value: 0.524	
Note: NDs excluded from Outlier Test	
1. Data Value 0.0037 is a Potential Outlier (Upper Tail)?	

Appendix B
Outlier Statistics

Test Statistic: 0.141
For 10% significance level, 0.0037 is not an outlier.
For 5% significance level, 0.0037 is not an outlier.
For 1% significance level, 0.0037 is not an outlier.
2. Data Value 0.00058 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.103
For 10% significance level, 0.00058 is not an outlier.
For 5% significance level, 0.00058 is not an outlier.
For 1% significance level, 0.00058 is not an outlier.
Dixon's Outlier Test for Barium
Total N = 23
Number NDs = 0
Number Detects = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
Note: NDs excluded from Outlier Test
1. Data Value 0.019 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.250
For 10% significance level, 0.019 is not an outlier.
For 5% significance level, 0.019 is not an outlier.
For 1% significance level, 0.019 is not an outlier.
2. Data Value 0.011 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.000
For 10% significance level, 0.011 is not an outlier.
For 5% significance level, 0.011 is not an outlier.
For 1% significance level, 0.011 is not an outlier.

Appendix B
Outlier Statistics

Dixon's Outlier Test for Lithium (outlier removed)
Total N = 24
Number NDs = 1
Number Detects = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
Note: NDs excluded from Outlier Test
1. Data Value 0.31 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.333
For 10% significance level, 0.31 is not an outlier.
For 5% significance level, 0.31 is not an outlier.
For 1% significance level, 0.31 is not an outlier.
2. Data Value 0.25 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.000
For 10% significance level, 0.25 is not an outlier.
For 5% significance level, 0.25 is not an outlier.
For 1% significance level, 0.25 is not an outlier.
Dixon's Outlier Test for Molybdenum (outlier removed)
Total N = 23
Number NDs = 1
Number Detects = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514
Note: NDs excluded from Outlier Test
1. Data Value 0.0065 is a Potential Outlier (Upper Tail)?

Appendix B
Outlier Statistics

Test Statistic: 0.261							
For 10% significance level, 0.0065 is not an outlier.							
For 5% significance level, 0.0065 is not an outlier.							
For 1% significance level, 0.0065 is not an outlier.							
2. Data Value 0.004 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.105							
For 10% significance level, 0.004 is not an outlier.							
For 5% significance level, 0.004 is not an outlier.							
For 1% significance level, 0.004 is not an outlier.							

Appendix B
Goodness of Fit Statistics

	Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.110/3/2024 9:46:23 AM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95

Antimony

Raw Statistics	
Number of Valid Observations	20
Number of Missing Observations	6
Number of Distinct Observations	6
Minimum	5.4000E-5
Maximum	0.01
Mean of Raw Data	0.00226
Standard Deviation of Raw Data	0.00278
Khat	1.035
Theta hat	0.00218
Kstar	0.913
Theta star	0.00247
Mean of Log Transformed Data	-6.648
Standard Deviation of Log Transformed Data	1.186

Normal GOF Test Results	
Correlation Coefficient R	0.767
Shapiro Wilk Test Statistic	0.598
Shapiro Wilk Critical (0.05) Value	0.905
Approximate Shapiro Wilk P Value	3.5898E-7
Lilliefors Test Statistic	0.387
Lilliefors Critical (0.05) Value	0.192

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.909
A-D Test Statistic	1.539
A-D Critical (0.05) Value	0.767

Appendix B
Goodness of Fit Statistics

K-S Test Statistic	0.266
K-S Critical(0.05) Value	0.199
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.904
Shapiro Wilk Test Statistic	0.835
Shapiro Wilk Critical (0.05) Value	0.905
Approximate Shapiro Wilk P Value	0.00205
Lilliefors Test Statistic	0.313
Lilliefors Critical (0.05) Value	0.192
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Arsenic	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	2
Number of Distinct Observations	21
Minimum	5.0000E-4
Maximum	0.0073
Mean of Raw Data	0.00197
Standard Deviation of Raw Data	0.00148
Khat	2.442
Theta hat	8.0529E-4
Kstar	2.164
Theta star	9.0851E-4
Mean of Log Transformed Data	-6.45
Standard Deviation of Log Transformed Data	0.666
Normal GOF Test Results	
Correlation Coefficient R	0.884
Shapiro Wilk Test Statistic	0.796
Shapiro Wilk Critical (0.05) Value	0.916

Appendix B
Goodness of Fit Statistics

Approximate Shapiro Wilk P Value	1.4790E-4
Lilliefors Test Statistic	0.17
Lilliefors Critical (0.05) Value	0.177
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.965
A-D Test Statistic	0.301
A-D Critical (0.05) Value	0.753
K-S Test Statistic	0.0991
K-S Critical(0.05) Value	0.18
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.991
Shapiro Wilk Test Statistic	0.98
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.885
Lilliefors Test Statistic	0.0872
Lilliefors Critical (0.05) Value	0.177
Data appear Lognormal at (0.05) Significance Level	
Barium	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	2
Number of Distinct Observations	8
Minimum	0.011
Maximum	0.036
Mean of Raw Data	0.0143
Standard Deviation of Raw Data	0.00511
Khat	13.1
Theta hat	0.00109
Kstar	11.49
Theta star	0.00125
Mean of Log Transformed Data	-4.284
Standard Deviation of Log Transformed Data	0.256

Appendix B
Goodness of Fit Statistics

Normal GOF Test Results	
Correlation Coefficient R	0.736
Shapiro Wilk Test Statistic	0.569
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	3.4876E-8
Lilliefors Test Statistic	0.257
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.8
A-D Test Statistic	2.298
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.226
K-S Critical(0.05) Value	0.178
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.842
Shapiro Wilk Test Statistic	0.728
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	8.7722E-6
Lilliefors Test Statistic	0.216
Lilliefors Critical (0.05) Value	0.177
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Beryllium	
Raw Statistics	
Number of Valid Observations	20
Number of Missing Observations	6
Number of Distinct Observations	1

Appendix B
Goodness of Fit Statistics

Minimum	0.001
Maximum	0.001

Warning: There is only one distinct observation value in this data set - resulting in '0' variance!
ProUCL (or any other software) should not be used on such a data set!
The data set for variable Beryllium was not processed!

If possible, compute and collect Data Quality Objectives (DQOs) based sample size and analytical results.
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

Cadmium

Raw Statistics

Number of Valid Observations	12
Number of Missing Observations	14
Number of Distinct Observations	5
Minimum	1.0000E-4
Maximum	0.001
Mean of Raw Data	2.8417E-4
Standard Deviation of Raw Data	3.4550E-4
Khat	1.182
Theta hat	2.4045E-4
Kstar	0.942
Theta star	3.0170E-4
Mean of Log Transformed Data	-8.645
Standard Deviation of Log Transformed Data	0.914

Normal GOF Test Results

Correlation Coefficient R	0.769
Shapiro Wilk Test Statistic	0.589
Shapiro Wilk Critical (0.05) Value	0.859
Approximate Shapiro Wilk P Value	3.2876E-5
Lilliefors Test Statistic	0.36
Lilliefors Critical (0.05) Value	0.243

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.908
A-D Test Statistic	2.092
A-D Critical (0.05) Value	0.753
K-S Test Statistic	0.38
K-S Critical(0.05) Value	0.251
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.822
Shapiro Wilk Test Statistic	0.664
Shapiro Wilk Critical (0.05) Value	0.859
Approximate Shapiro Wilk P Value	2.4337E-4
Lilliefors Test Statistic	0.363
Lilliefors Critical (0.05) Value	0.243
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Chromium	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	2
Number of Distinct Observations	9
Minimum	5.0000E-4
Maximum	0.01
Mean of Raw Data	0.00206
Standard Deviation of Raw Data	0.00257
Khat	1.358
Theta hat	0.00152
Kstar	1.216
Theta star	0.00169
Mean of Log Transformed Data	-6.597
Standard Deviation of Log Transformed Data	0.823
Normal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.741
Shapiro Wilk Test Statistic	0.558
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	2.4816E-8
Lilliefors Test Statistic	0.353
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.891
A-D Test Statistic	1.976
A-D Critical (0.05) Value	0.764
K-S Test Statistic	0.257
K-S Critical(0.05) Value	0.182
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.933
Shapiro Wilk Test Statistic	0.866
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.00369
Lilliefors Test Statistic	0.231
Lilliefors Critical (0.05) Value	0.177
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Cobalt	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	2
Number of Distinct Observations	10
Minimum	2.5000E-4
Maximum	0.005

Appendix B
Goodness of Fit Statistics

Mean of Raw Data	0.00113
Standard Deviation of Raw Data	0.00129
Khat	1.554
Theta hat	7.2790E-4
Kstar	1.388
Theta star	8.1523E-4
Mean of Log Transformed Data	-7.139
Standard Deviation of Log Transformed Data	0.756
Normal GOF Test Results	
Correlation Coefficient R	0.752
Shapiro Wilk Test Statistic	0.574
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	4.0270E-8
Lilliefors Test Statistic	0.343
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.901
A-D Test Statistic	2.778
A-D Critical (0.05) Value	0.761
K-S Test Statistic	0.276
K-S Critical(0.05) Value	0.181
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.892
Shapiro Wilk Test Statistic	0.8
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	1.6847E-4
Lilliefors Test Statistic	0.261
Lilliefors Critical (0.05) Value	0.177
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	

Appendix B
Goodness of Fit Statistics

Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride	
Raw Statistics	
Number of Valid Observations	26
Number of Distinct Observations	7
Minimum	0.21
Maximum	10
Mean of Raw Data	1.047
Standard Deviation of Raw Data	1.837
Khat	1.467
Theta hat	0.714
Kstar	1.323
Theta star	0.791
Mean of Log Transformed Data	-0.333
Standard Deviation of Log Transformed Data	0.669
Normal GOF Test Results	
Correlation Coefficient R	0.492
Shapiro Wilk Test Statistic	0.275
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	2.814E-12
Lilliefors Test Statistic	0.515
Lilliefors Critical (0.05) Value	0.17
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.656
A-D Test Statistic	5.375
A-D Critical (0.05) Value	0.762
K-S Test Statistic	0.473
K-S Critical(0.05) Value	0.174
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.762

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Test Statistic	0.619
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	7.2114E-8
Lilliefors Test Statistic	0.397
Lilliefors Critical (0.05) Value	0.17
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Lead	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	2
Number of Distinct Observations	5
Minimum	5.0000E-4
Maximum	0.005
Mean of Raw Data	0.00113
Standard Deviation of Raw Data	0.00127
Khat	1.694
Theta hat	6.6939E-4
Kstar	1.51
Theta star	7.5094E-4
Mean of Log Transformed Data	-7.106
Standard Deviation of Log Transformed Data	0.709
Normal GOF Test Results	
Correlation Coefficient R	0.731
Shapiro Wilk Test Statistic	0.542
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	1.4879E-8
Lilliefors Test Statistic	0.375
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.882
A-D Test Statistic	3.17
A-D Critical (0.05) Value	0.759
K-S Test Statistic	0.293
K-S Critical(0.05) Value	0.181
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.852
Shapiro Wilk Test Statistic	0.72
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	6.5773E-6
Lilliefors Test Statistic	0.299
Lilliefors Critical (0.05) Value	0.177
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Lithium	
Raw Statistics	
Number of Valid Observations	25
Number of Missing Observations	2
Number of Distinct Observations	9
Minimum	0.25
Maximum	0.47
Mean of Raw Data	0.284
Standard Deviation of Raw Data	0.0495
Khat	43.58
Theta hat	0.00651
Kstar	38.38
Theta star	0.00739
Mean of Log Transformed Data	-1.272
Standard Deviation of Log Transformed Data	0.146
Normal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.775
Shapiro Wilk Test Statistic	0.619
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	1.1175E-7
Lilliefors Test Statistic	0.289
Lilliefors Critical (0.05) Value	0.173
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.811
A-D Test Statistic	2.731
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.273
K-S Critical(0.05) Value	0.174
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.824
Shapiro Wilk Test Statistic	0.692
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	1.5590E-6
Lilliefors Test Statistic	0.263
Lilliefors Critical (0.05) Value	0.173
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Mercury	
Raw Statistics	
Number of Valid Observations	19
Number of Missing Observations	7
Number of Distinct Observations	1
Minimum	2.0000E-4
Maximum	2.0000E-4

Appendix B
Goodness of Fit Statistics

Warning: There is only one distinct observation value in this data set - resulting in '0' variance!
ProUCL (or any other software) should not be used on such a data set!
The data set for variable Mercury was not processed!

If possible, compute and collect Data Quality Objectives (DQOs) based sample size and analytical results.
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

Molybdenum

Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	2
Number of Distinct Observations	16
Minimum	0.004
Maximum	0.042
Mean of Raw Data	0.00658
Standard Deviation of Raw Data	0.00757
Khat	2.853
Theta hat	0.0023
Kstar	2.525
Theta star	0.0026
Mean of Log Transformed Data	-5.21
Standard Deviation of Log Transformed Data	0.451

Normal GOF Test Results	
Correlation Coefficient R	0.497
Shapiro Wilk Test Statistic	0.276
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	1.190E-11
Lilliefors Test Statistic	0.462
Lilliefors Critical (0.05) Value	0.177

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.634
A-D Test Statistic	5.795

Appendix B
Goodness of Fit Statistics

A-D Critical (0.05) Value	0.752
K-S Test Statistic	0.408
K-S Critical(0.05) Value	0.179
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.646
Shapiro Wilk Test Statistic	0.45
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	1.0499E-9
Lilliefors Test Statistic	0.349
Lilliefors Critical (0.05) Value	0.177
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Selenium	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	2
Number of Distinct Observations	14
Minimum	2.0000E-4
Maximum	0.005
Mean of Raw Data	0.00132
Standard Deviation of Raw Data	0.00143
Khat	1.463
Theta hat	8.9918E-4
Kstar	1.308
Theta star	0.00101
Mean of Log Transformed Data	-7.013
Standard Deviation of Log Transformed Data	0.818
Normal GOF Test Results	
Correlation Coefficient R	0.799
Shapiro Wilk Test Statistic	0.64

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	3.5063E-7
Lilliefors Test Statistic	0.338
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.924
A-D Test Statistic	2.042
A-D Critical (0.05) Value	0.762
K-S Test Statistic	0.263
K-S Critical(0.05) Value	0.181
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.934
Shapiro Wilk Test Statistic	0.872
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.00504
Lilliefors Test Statistic	0.199
Lilliefors Critical (0.05) Value	0.177
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Thallium	
Raw Statistics	
Number of Valid Observations	22
Number of Missing Observations	4
Number of Distinct Observations	4
Minimum	1.0000E-4
Maximum	0.001
Mean of Raw Data	2.3636E-4
Standard Deviation of Raw Data	2.6285E-4
Khat	1.636

Appendix B
Goodness of Fit Statistics

Theta hat	1.4450E-4
Kstar	1.443
Theta star	1.6380E-4
Mean of Log Transformed Data	-8.686
Standard Deviation of Log Transformed Data	0.733
Normal GOF Test Results	
Correlation Coefficient R	0.744
Shapiro Wilk Test Statistic	0.559
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	6.6457E-8
Lilliefors Test Statistic	0.373
Lilliefors Critical (0.05) Value	0.184
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.891
A-D Test Statistic	2.851
A-D Critical (0.05) Value	0.758
K-S Test Statistic	0.299
K-S Critical(0.05) Value	0.188
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.857
Shapiro Wilk Test Statistic	0.728
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	1.7942E-5
Lilliefors Test Statistic	0.308
Lilliefors Critical (0.05) Value	0.184
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Total Radium	

Appendix B
Goodness of Fit Statistics

Raw Statistics	
Number of Valid Observations	21
Number of Missing Observations	5
Number of Distinct Observations	9
Minimum	0.5
Maximum	1.6
Mean of Raw Data	0.817
Standard Deviation of Raw Data	0.257
Khat	13.1
Theta hat	0.0624
Kstar	11.26
Theta star	0.0726
Mean of Log Transformed Data	-0.24
Standard Deviation of Log Transformed Data	0.273
Normal GOF Test Results	
Correlation Coefficient R	0.893
Shapiro Wilk Test Statistic	0.81
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	5.9390E-4
Lilliefors Test Statistic	0.289
Lilliefors Critical (0.05) Value	0.188
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.936
A-D Test Statistic	1.09
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.256
K-S Critical(0.05) Value	0.189
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.947
Shapiro Wilk Test Statistic	0.905
Shapiro Wilk Critical (0.05) Value	0.908

Appendix B
Goodness of Fit Statistics

Approximate Shapiro Wilk P Value	0.0401							
Lilliefors Test Statistic	0.237							
Lilliefors Critical (0.05) Value	0.188							
Data not Lognormal at (0.05) Significance Level								
Non-parametric GOF Test Results								
Data do not follow a discernible distribution at (0.05) Level of Significance								
Arsenic (Outliers removed)								
	Num Obs	Num Miss	Num Valid	Detects	NDs	% NDs		
Raw Statistics	26	3	23	21	2	8.70%		
	Number	Minimum	Maximum	Mean	Median	SD		
Statistics (Non-Detects Only)	2	5.0000E-4	0.001	7.5000E-4	7.5000E-4	3.5355E-4		
Statistics (Non-Detects Only)	21	5.8000E-4	0.0037	0.00183	0.0016	9.6206E-4		
Statistics (All: NDs treated as DL value)	23	5.0000E-4	0.0037	0.00173	0.0016	9.7138E-4		
Statistics (All: NDs treated as DL/2 value)	23	2.5000E-4	0.0037	0.0017	0.0016	0.00101		
Statistics (Normal ROS Imputed Data)	23	-5.273E-4	0.0037	0.00167	0.0016	0.00107		
Statistics (Gamma ROS Imputed Data)	23	5.8000E-4	0.01	0.00254	0.0017	0.00253		
Statistics (Lognormal ROS Imputed Data)	23	3.9443E-4	0.0037	0.00172	0.0016	9.8625E-4		
	K hat	K Star	Theta hat	Log Mean	Log Stdv	Log CV		
Statistics (Non-Detects Only)	3.68	3.186	4.9672E-4	-6.446	0.563	-0.0873		
Statistics (NDs = DL)	3.291	2.89	5.2706E-4	-6.517	0.594	-0.0912		
Statistics (NDs = DL/2)	2.644	2.328	6.4362E-4	-6.577	0.697	-0.106		
Statistics (Gamma ROS Estimates)	1.76	1.559	0.00144	-6.286	0.755	-0.12		
Statistics (Lognormal ROS Estimates)	--	--	--	-6.538	0.625	-0.0956		
Normal GOF Test Results								
	No NDs	NDs = DL	NDs = DL/2	Normal ROS				
Correlation Coefficient R	0.972	0.967	0.976	0.984				
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)					
Shapiro-Wilk (Detects Only)	0.932	0.908	Data Appear Normal					
Shapiro-Wilk (NDs = DL)	0.922	0.914	Data Appear Normal					
Shapiro-Wilk (NDs = DL/2)	0.942	0.914	Data Appear Normal					

Appendix B
Goodness of Fit Statistics

Shapiro-Wilk (Normal ROS Estimates)	0.966	0.914	Data Appear Normal	
Lilliefors (Detects Only)	0.131	0.188	Data Appear Normal	
Lilliefors (NDs = DL)	0.125	0.18	Data Appear Normal	
Lilliefors (NDs = DL/2)	0.123	0.18	Data Appear Normal	
Lilliefors (Normal ROS Estimates)	0.109	0.18	Data Appear Normal	
Gamma GOF Test Results				
	No NDs	NDs = DL	NDs = DL/2	Gamma ROS
Correlation Coefficient R	0.984	0.984	0.982	0.919
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)	
Anderson-Darling (Detects Only)	0.246	0.748		
Kolmogorov-Smirnov (Detects Only)	0.119	0.19	Detected Data Appear Gamma Distributed	
Anderson-Darling (NDs = DL)	0.267	0.75		
Kolmogorov-Smirnov (NDs = DL)	0.113	0.183	Data Appear Gamma Distributed	
Anderson-Darling (NDs = DL/2)	0.186	0.752		
Kolmogorov-Smirnov (NDs = DL/2)	0.0943	0.183	Data Appear Gamma Distributed	
Anderson-Darling (Gamma ROS Estimates)	0.897	0.757		
Kolmogorov-Smirnov (Gamma ROS Est.)	0.133	0.184	Detected Data appear Approximate Gamma Distribution	
Lognormal GOF Test Results				
	No NDs	NDs = DL	NDs = DL/2	Log ROS
Correlation Coefficient R	0.986	0.988	0.98	0.988
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)	
Shapiro-Wilk (Detects Only)	0.959	0.908	Data Appear Lognormal	
Shapiro-Wilk (NDs = DL)	0.962	0.914	Data Appear Lognormal	
Shapiro-Wilk (NDs = DL/2)	0.957	0.914	Data Appear Lognormal	
Shapiro-Wilk (Lognormal ROS Estimates)	0.967	0.914	Data Appear Lognormal	
Lilliefors (Detects Only)	0.109	0.188	Data Appear Lognormal	
Lilliefors (NDs = DL)	0.0926	0.18	Data Appear Lognormal	
Lilliefors (NDs = DL/2)	0.108	0.18	Data Appear Lognormal	
Lilliefors (Lognormal ROS Estimates)	0.103	0.18	Data Appear Lognormal	
Note: Substitution methods such as DL or DL/2 are not recommended.				
Barium (outlier removed)				

Appendix B
Goodness of Fit Statistics

Raw Statistics	
Number of Valid Observations	23
Number of Missing Observations	3
Number of Distinct Observations	7
Minimum	0.011
Maximum	0.019
Mean of Raw Data	0.0134
Standard Deviation of Raw Data	0.00225
Khat	40.53
Theta hat	3.3044E-4
Kstar	35.27
Theta star	3.7970E-4
Mean of Log Transformed Data	-4.326
Standard Deviation of Log Transformed Data	0.158
Normal GOF Test Results	
Correlation Coefficient R	0.917
Shapiro Wilk Test Statistic	0.838
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.00117
Lilliefors Test Statistic	0.253
Lilliefors Critical (0.05) Value	0.18
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.937
A-D Test Statistic	1.436
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.258
K-S Critical(0.05) Value	0.181
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.934
Shapiro Wilk Test Statistic	0.865
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.00417

Appendix B
Goodness of Fit Statistics

Lilliefors Test Statistic	0.253							
Lilliefors Critical (0.05) Value	0.18							
Data not Lognormal at (0.05) Significance Level								
Non-parametric GOF Test Results								
Data do not follow a discernible distribution at (0.05) Level of Significance								
Lithium (outlier removal)								
	Num Obs	Num Miss	Num Valid	Detects	NDs	% NDs		
Raw Statistics	27	3	24	23	1	4.17%		
	Number	Minimum	Maximum	Mean	Median	SD		
Statistics (Non-Detects Only)	1	0.4	0.4	0.4	0.4	N/A		
Statistics (Non-Detects Only)	23	0.25	0.31	0.27	0.27	0.0172		
Statistics (All: NDs treated as DL value)	24	0.25	0.4	0.276	0.27	0.0313		
Statistics (All: NDs treated as DL/2 value)	24	0.2	0.31	0.268	0.27	0.0221		
Statistics (Normal ROS Imputed Data)	24	0.25	0.31	0.27	0.27	0.0168		
Statistics (Gamma ROS Imputed Data)	24	0.25	0.31	0.27	0.27	0.0168		
Statistics (Lognormal ROS Imputed Data)	24	0.25	0.31	0.27	0.27	0.0168		
	K hat	K Star	Theta hat	Log Mean	Log Stdv	Log CV		
Statistics (Non-Detects Only)	263.2	228.9	0.00103	-1.31	0.0628	-0.048		
Statistics (NDs = DL)	94.9	83.06	0.00291	-1.293	0.101	-0.0782		
Statistics (NDs = DL/2)	143.8	125.8	0.00186	-1.322	0.0867	-0.0656		
Statistics (Gamma ROS Estimates)	274.6	240.3	9.8482E-4	-1.31	0.0614	-0.0469		
Statistics (Lognormal ROS Estimates)	--	--	--	-1.31	0.0614	-0.0469		
Normal GOF Test Results								
	No NDs	NDs = DL	NDs = DL/2	Normal ROS				
Correlation Coefficient R	0.962	0.823	0.947	0.963				
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)					
Shapiro-Wilk (Detects Only)	0.917	0.914	Data Appear Normal					
Shapiro-Wilk (NDs = DL)	0.699	0.916	Data Not Normal					
Shapiro-Wilk (NDs = DL/2)	0.915	0.916	Data Not Normal					
Shapiro-Wilk (Normal ROS Estimates)	0.918	0.916	Data Appear Normal					
Lilliefors (Detects Only)	0.144	0.18	Data Appear Normal					

Appendix B
Goodness of Fit Statistics

Lilliefors (NDs = DL)	0.239	0.177	Data Not Normal				
Lilliefors (NDs = DL/2)	0.173	0.177	Data Appear Normal				
Lilliefors (Normal ROS Estimates)	0.138	0.177	Data Appear Normal				
Gamma GOF Test Results							
	No NDs	NDs = DL	NDs = DL/2	Gamma ROS			
Correlation Coefficient R	0.965	0.845	0.945	0.966			
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)				
Anderson-Darling (Detects Only)	0.659	0.74					
Kolmogorov-Smirnov (Detects Only)	0.153	0.181	Detected Data Appear Gamma Distributed				
Anderson-Darling (NDs = DL)	1.49	0.742					
Kolmogorov-Smirnov (NDs = DL)	0.22	0.177	Data Not Gamma Distributed				
Anderson-Darling (NDs = DL/2)	0.728	0.742					
Kolmogorov-Smirnov (NDs = DL/2)	0.178	0.177	Detected Data appear Approximate Gamma Distribution				
Anderson-Darling (Gamma ROS Estimates)	0.668	0.742					
Kolmogorov-Smirnov (Gamma ROS Est.)	0.147	0.177	Data Appear Gamma Distributed				
Lognormal GOF Test Results							
	No NDs	NDs = DL	NDs = DL/2	Log ROS			
Correlation Coefficient R	0.964	0.865	0.926	0.965			
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)				
Shapiro-Wilk (Detects Only)	0.919	0.914	Data Appear Lognormal				
Shapiro-Wilk (NDs = DL)	0.766	0.916	Data Not Lognormal				
Shapiro-Wilk (NDs = DL/2)	0.879	0.916	Data Not Lognormal				
Shapiro-Wilk (Lognormal ROS Estimates)	0.921	0.916	Data Appear Lognormal				
Lilliefors (Detects Only)	0.15	0.18	Data Appear Lognormal				
Lilliefors (NDs = DL)	0.212	0.177	Data Not Lognormal				
Lilliefors (NDs = DL/2)	0.188	0.177	Data Not Lognormal				
Lilliefors (Lognormal ROS Estimates)	0.144	0.177	Data Appear Lognormal				
Note: Substitution methods such as DL or DL/2 are not recommended.							
Molybdenum							
	Num Obs	Num Miss	Num Valid	Detects	NDs	% NDs	

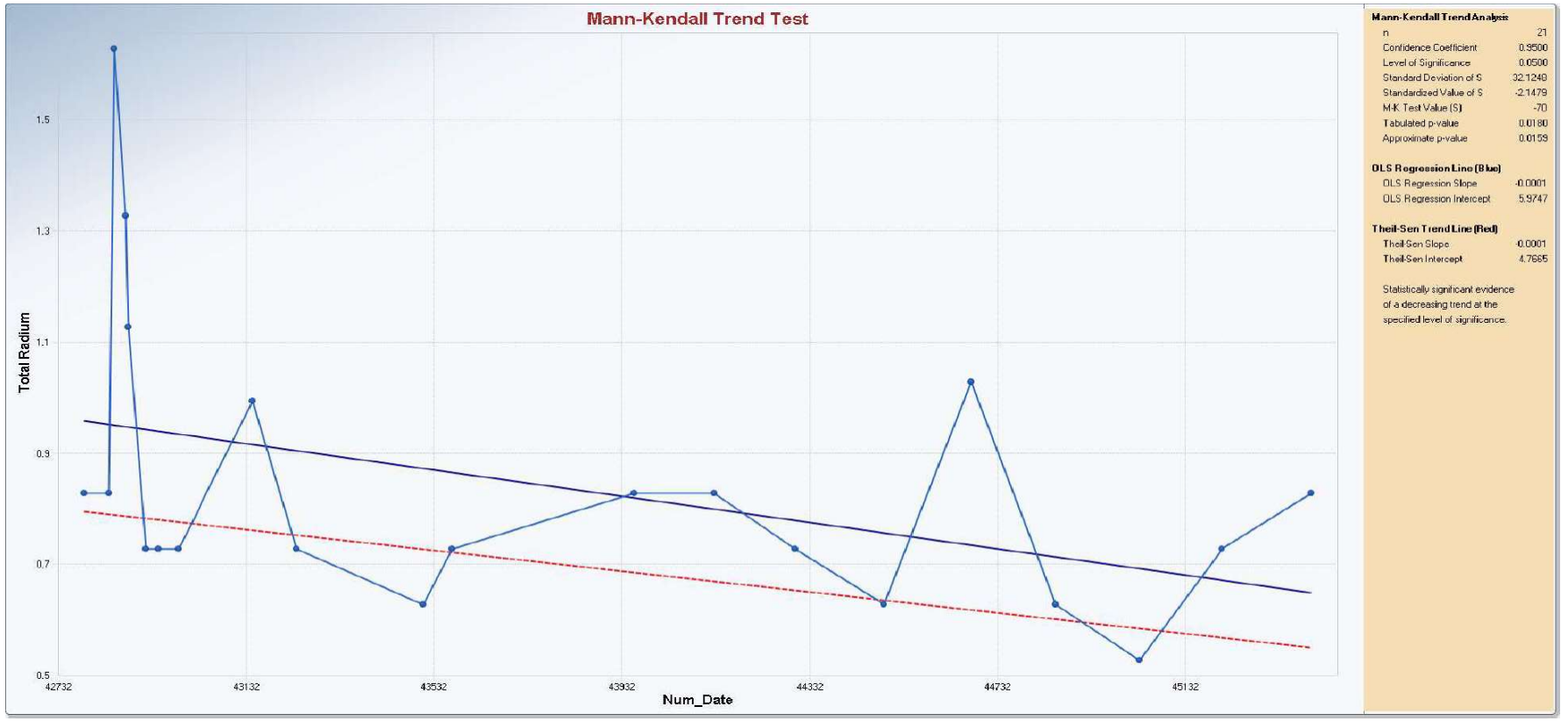
Appendix B
Goodness of Fit Statistics

Raw Statistics	26	3	23	22	1	4.35%		
	Number	Minimum	Maximum	Mean	Median	SD		
Statistics (Non-Detects Only)	1	0.005	0.005	0.005	0.005	N/A		
Statistics (Non-Detects Only)	22	0.004	0.0065	0.00504	0.005	6.3136E-4		
Statistics (All: NDs treated as DL value)	23	0.004	0.0065	0.00503	0.005	6.1689E-4		
Statistics (All: NDs treated as DL/2 value)	23	0.0025	0.0065	0.00493	0.005	8.1253E-4		
Statistics (Normal ROS Imputed Data)	23	0.004	0.0065	0.00501	0.005	6.2957E-4		
Statistics (Gamma ROS Imputed Data)	23	0.004	0.01	0.00525	0.005	0.0012		
Statistics (Lognormal ROS Imputed Data)	23	0.004	0.0065	0.00501	0.005	6.2953E-4		
	K hat	K Star	Theta hat	Log Mean	Log Stdv	Log CV		
Statistics (Non-Detects Only)	67.32	58.17	7.4807E-5	-5.299	0.125	-0.0236		
Statistics (NDs = DL)	70.37	61.22	7.1551E-5	-5.299	0.122	-0.023		
Statistics (NDs = DL/2)	32.56	28.34	1.5128E-4	-5.329	0.189	-0.0355		
Statistics (Gamma ROS Estimates)	26.13	22.75	2.0100E-4	-5.268	0.189	-0.0359		
Statistics (Lognormal ROS Estimates)	--	--	--	-5.304	0.125	-0.0235		
Normal GOF Test Results								
	No NDs	NDs = DL	NDs = DL/2	Normal ROS				
Correlation Coefficient R	0.978	0.975	0.954	0.979				
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)					
Shapiro-Wilk (Detects Only)	0.956	0.911	Data Appear Normal					
Shapiro-Wilk (NDs = DL)	0.951	0.914	Data Appear Normal					
Shapiro-Wilk (NDs = DL/2)	0.928	0.914	Data Appear Normal					
Shapiro-Wilk (Normal ROS Estimates)	0.957	0.914	Data Appear Normal					
Lilliefors (Detects Only)	0.142	0.184	Data Appear Normal					
Lilliefors (NDs = DL)	0.154	0.18	Data Appear Normal					
Lilliefors (NDs = DL/2)	0.183	0.18	Data Not Normal					
Lilliefors (Normal ROS Estimates)	0.139	0.18	Data Appear Normal					
Gamma GOF Test Results								
	No NDs	NDs = DL	NDs = DL/2	Gamma ROS				
Correlation Coefficient R	0.982	0.979	0.943	0.857				
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)					
Anderson-Darling (Detects Only)	0.434	0.742						

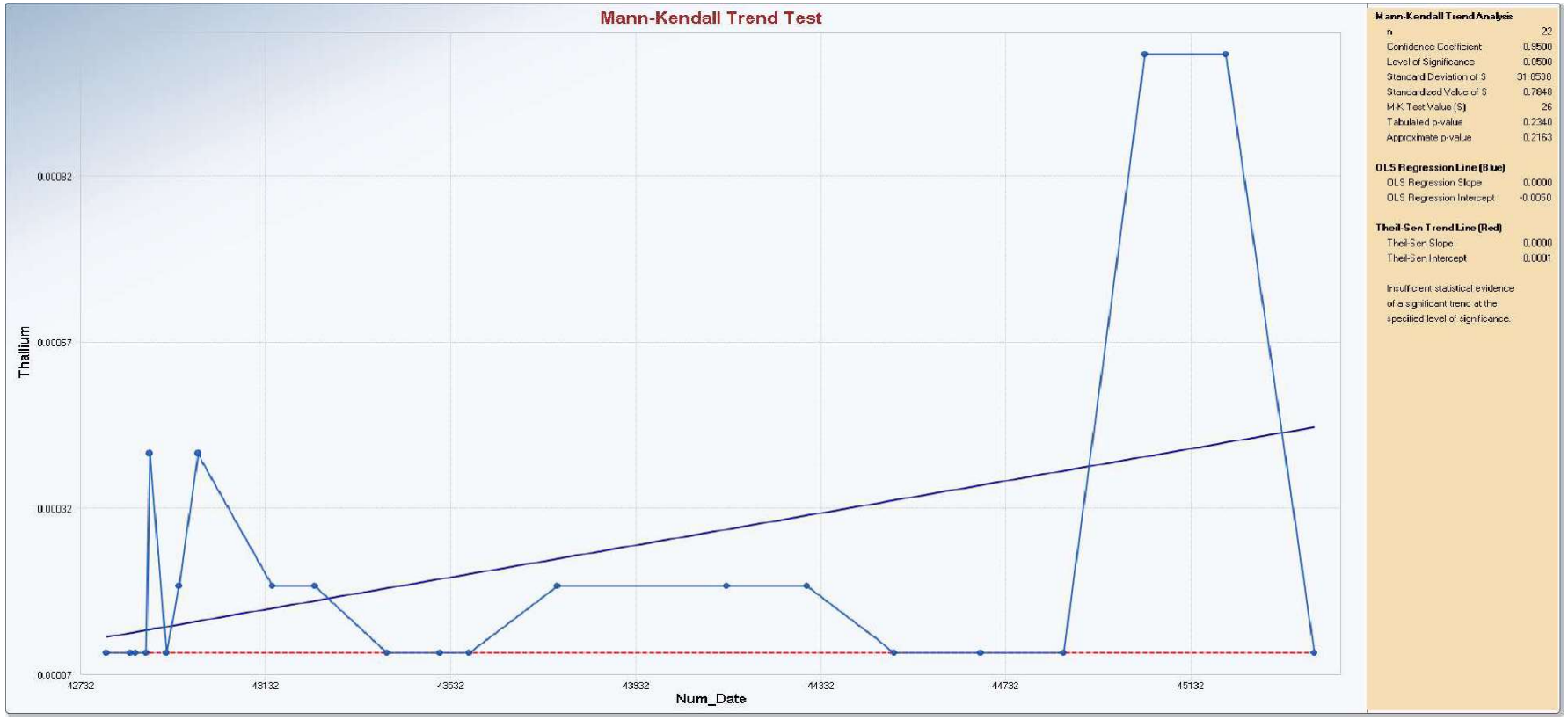
Appendix B
Goodness of Fit Statistics

Kolmogorov-Smirnov (Detects Only)	0.154	0.185	Detected Data Appear Gamma Distributed		
Anderson-Darling (NDs = DL)	0.529	0.741			
Kolmogorov-Smirnov (NDs = DL)	0.165	0.181	Data Appear Gamma Distributed		
Anderson-Darling (NDs = DL/2)	0.854	0.742			
Kolmogorov-Smirnov (NDs = DL/2)	0.207	0.181	Data Not Gamma Distributed		
Anderson-Darling (Gamma ROS Estimates)	1.286	0.742			
Kolmogorov-Smirnov (Gamma ROS Est.)	0.195	0.181	Data Not Gamma Distributed		
Lognormal GOF Test Results					
	No NDs	NDs = DL	NDs = DL/2	Log ROS	
Correlation Coefficient R	0.982	0.978	0.902	0.984	
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)		
Shapiro-Wilk (Detects Only)	0.962	0.911	Data Appear Lognormal		
Shapiro-Wilk (NDs = DL)	0.956	0.914	Data Appear Lognormal		
Shapiro-Wilk (NDs = DL/2)	0.837	0.914	Data Not Lognormal		
Shapiro-Wilk (Lognormal ROS Estimates)	0.966	0.914	Data Appear Lognormal		
Lilliefors (Detects Only)	0.164	0.184	Data Appear Lognormal		
Lilliefors (NDs = DL)	0.174	0.18	Data Appear Lognormal		
Lilliefors (NDs = DL/2)	0.217	0.18	Data Not Lognormal		
Lilliefors (Lognormal ROS Estimates)	0.148	0.18	Data Appear Lognormal		

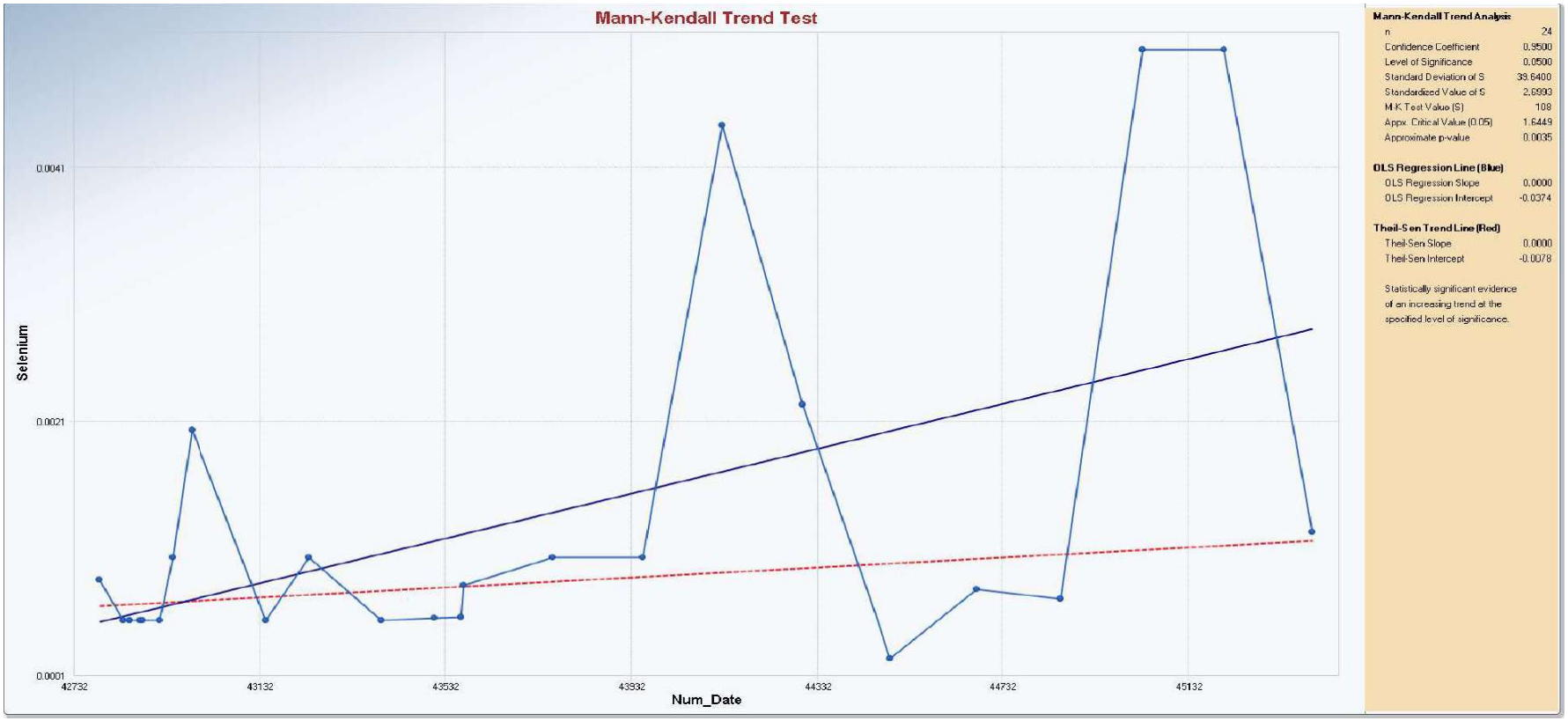
Appendix B
Time Series Plots



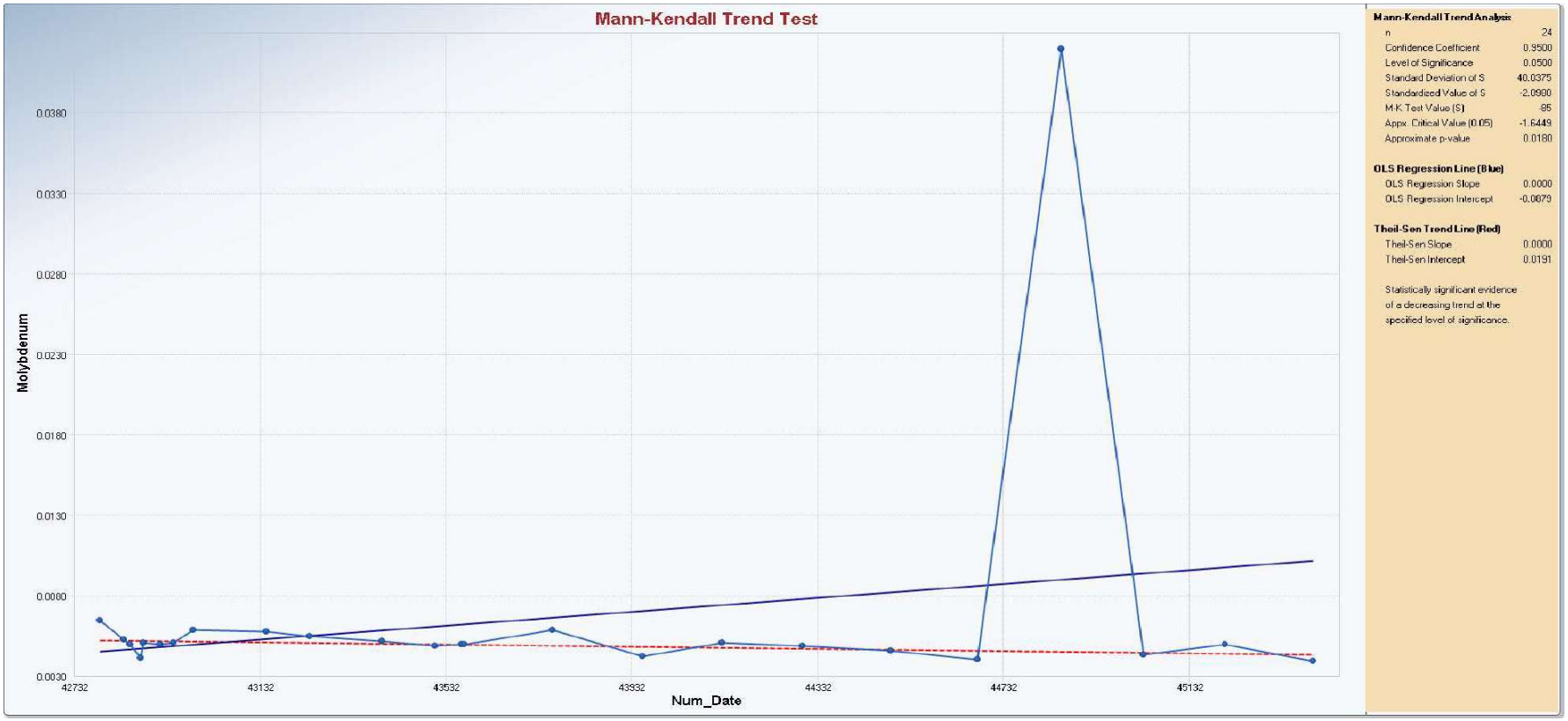
Appendix B
Time Series Plots



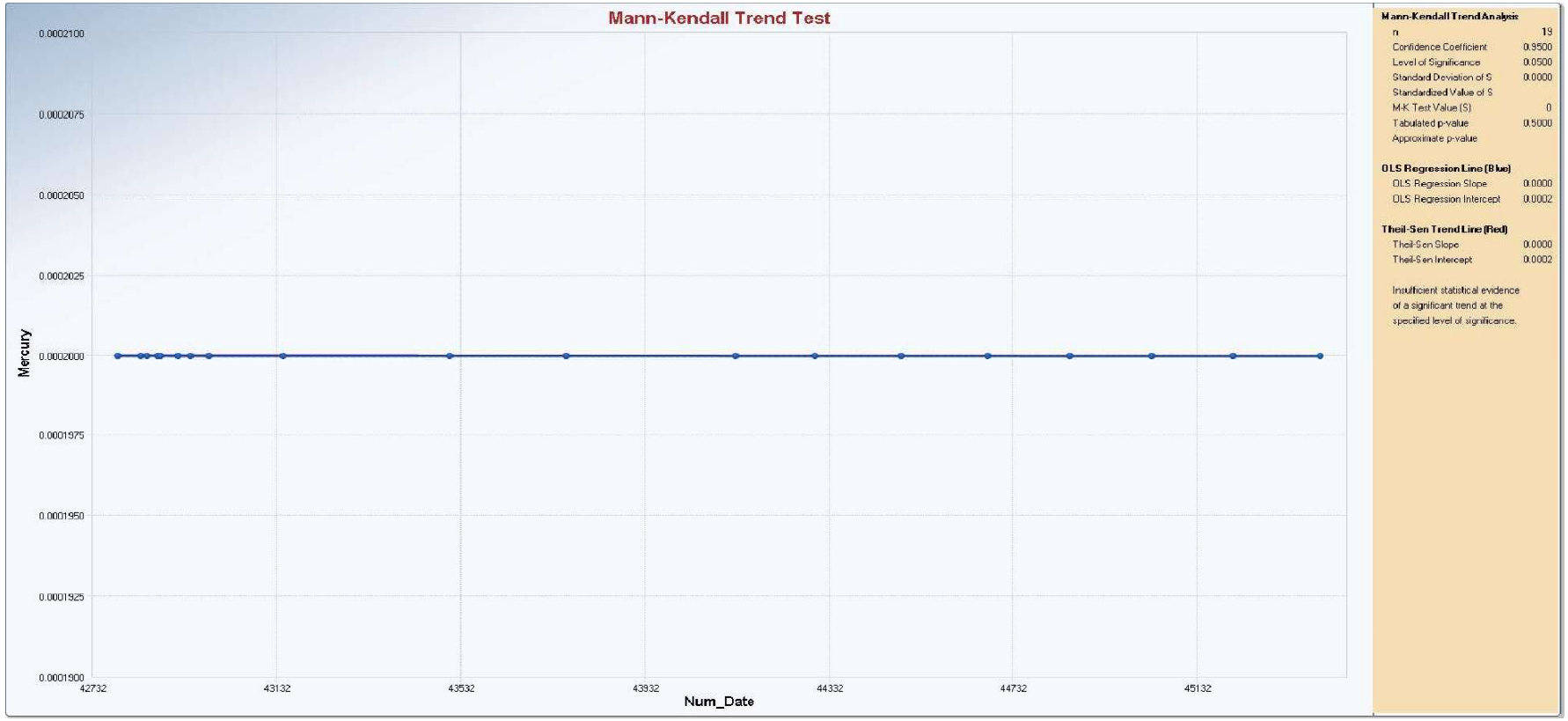
Appendix B
Time Series Plots



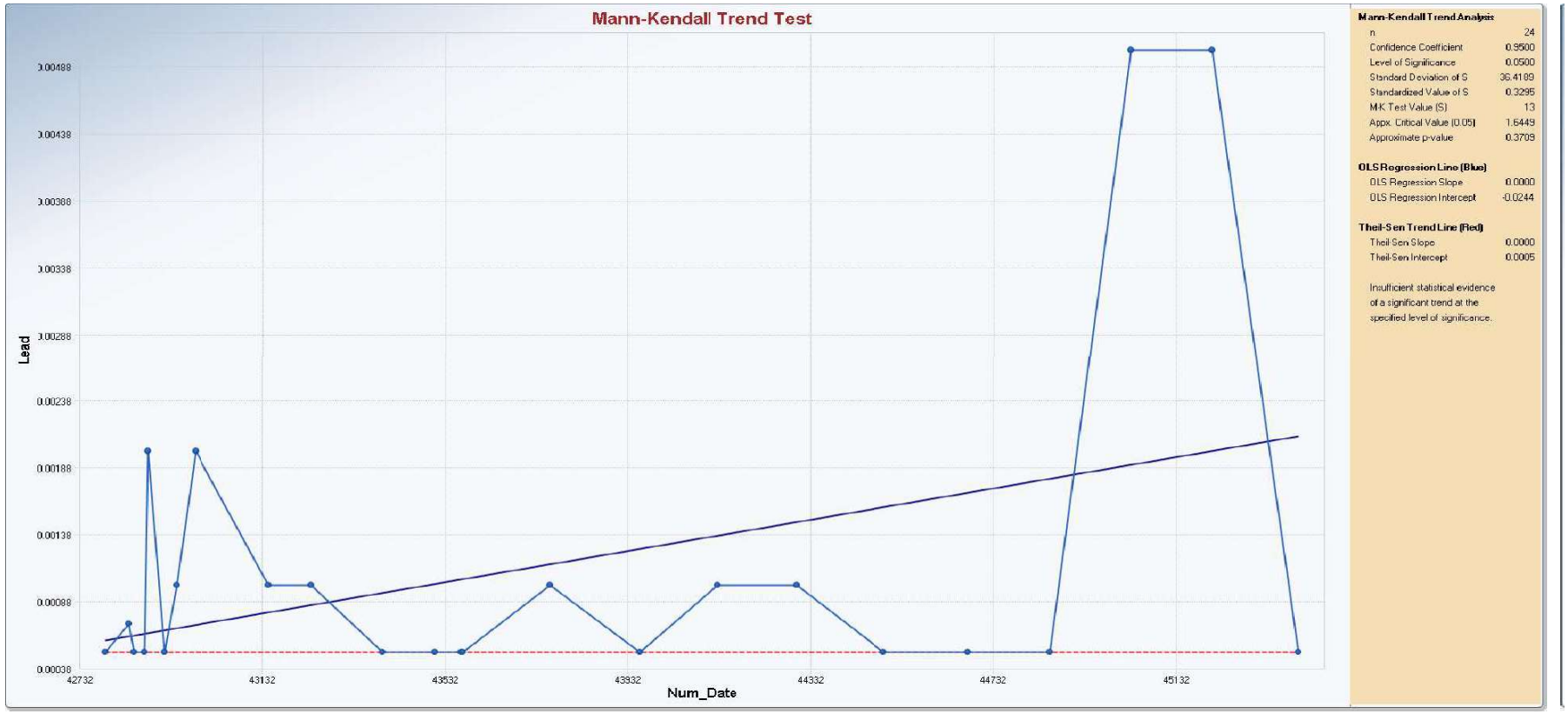
Appendix B
Time Series Plots



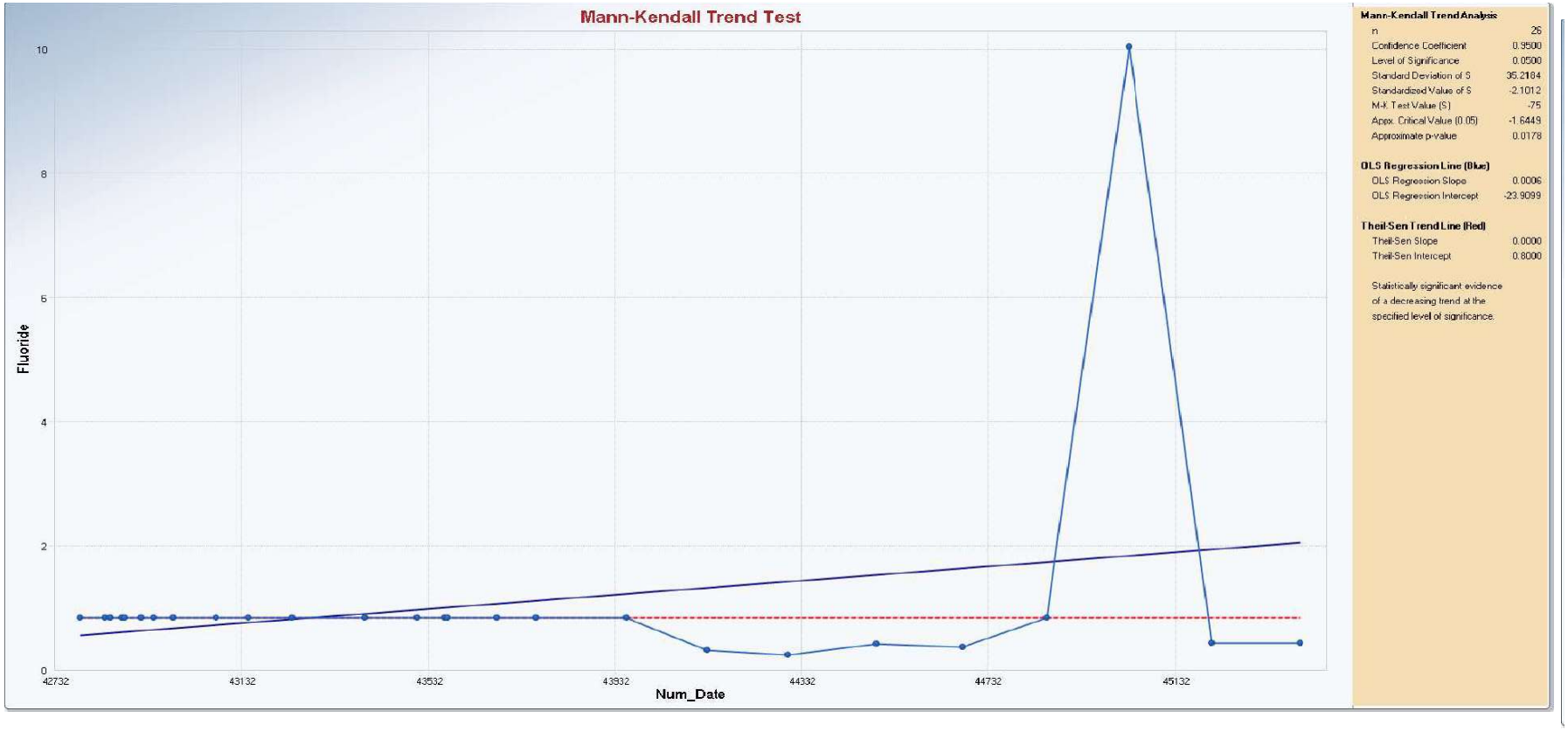
Appendix B
Time Series Plots



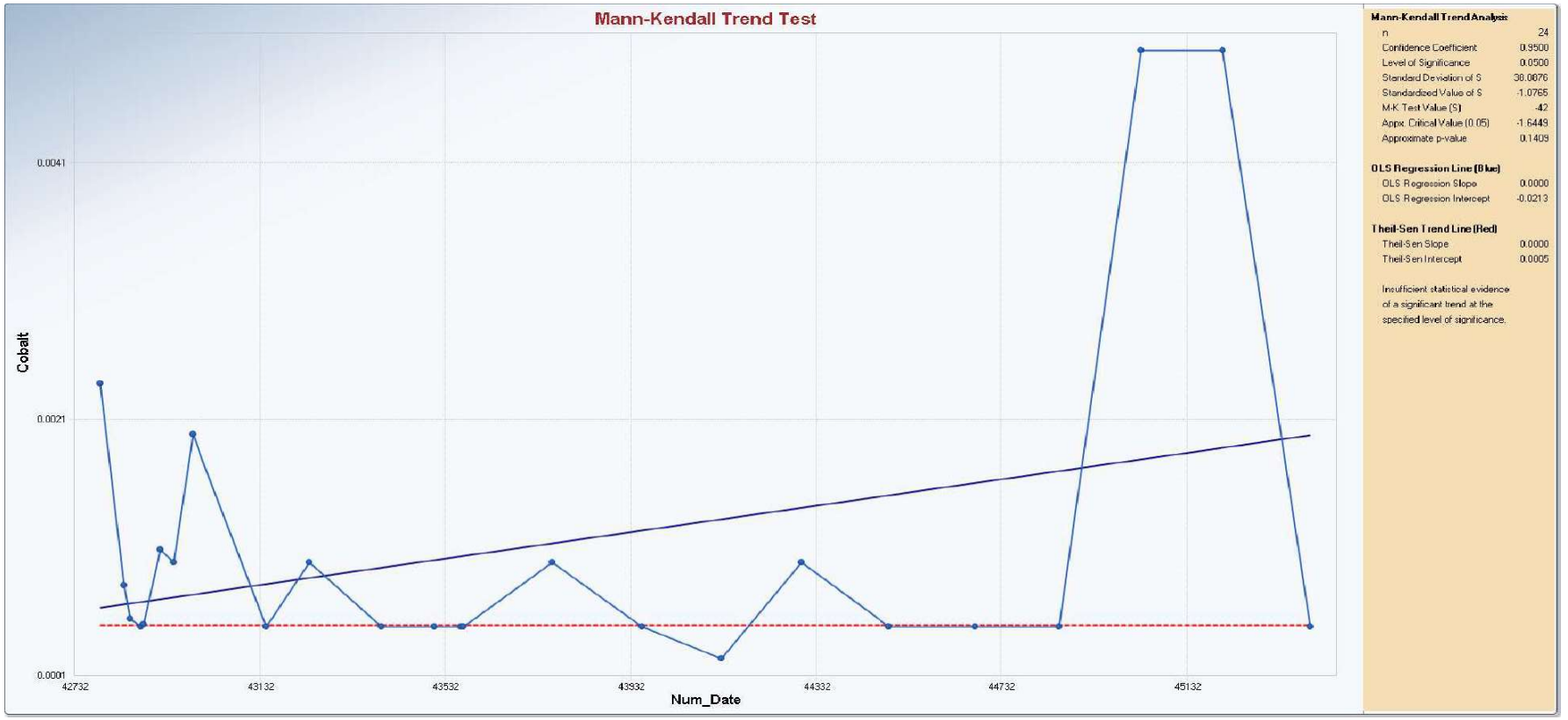
Appendix B
Time Series Plots



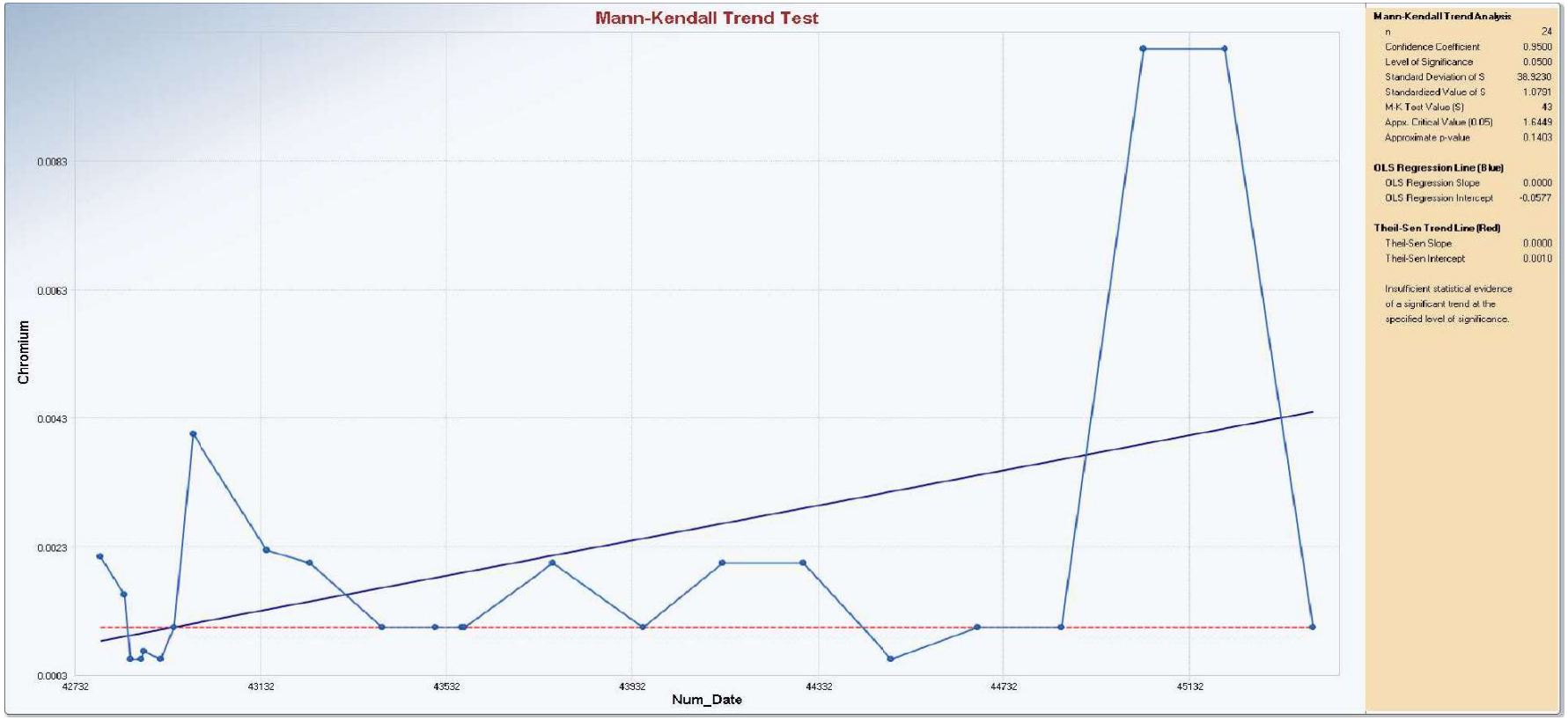
Appendix B
Time Series Plots



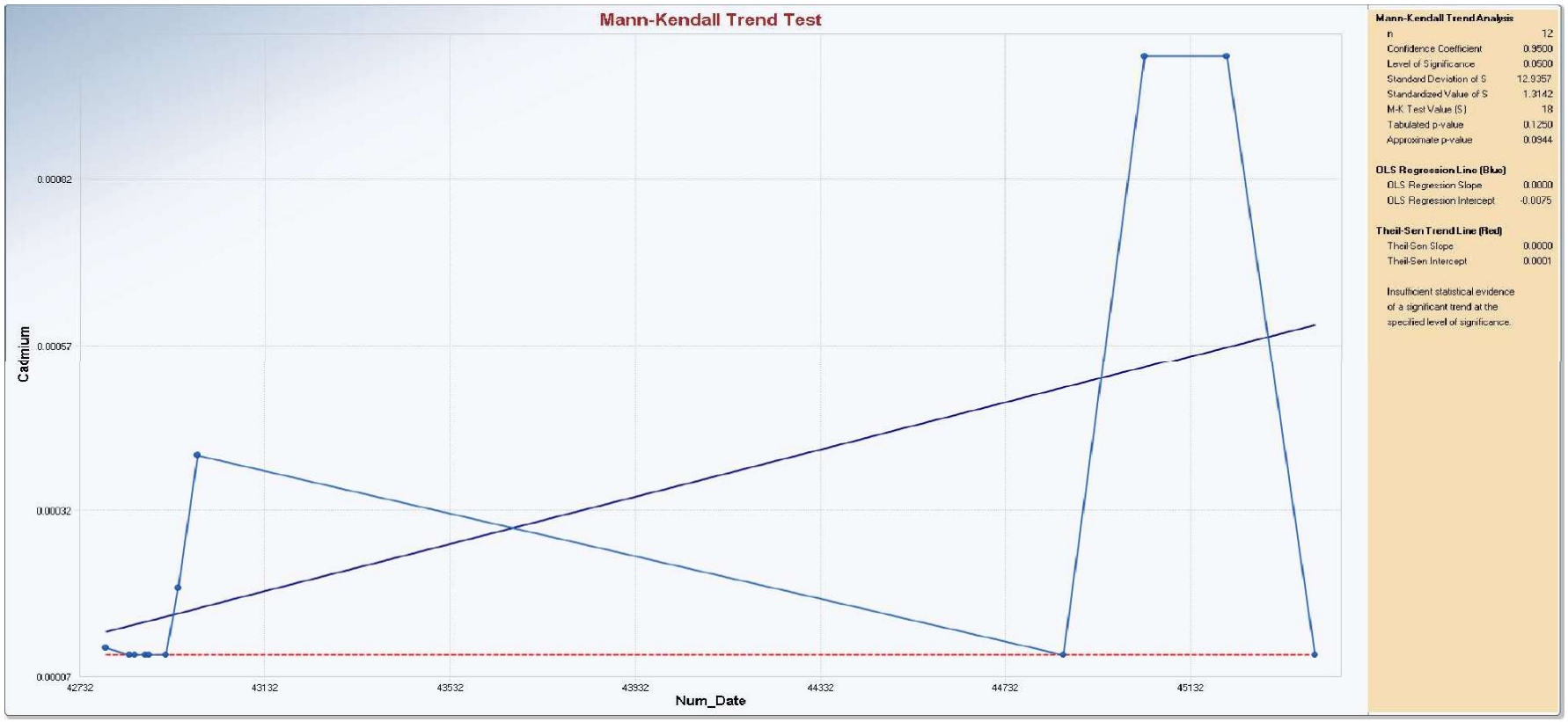
Appendix B
Time Series Plots



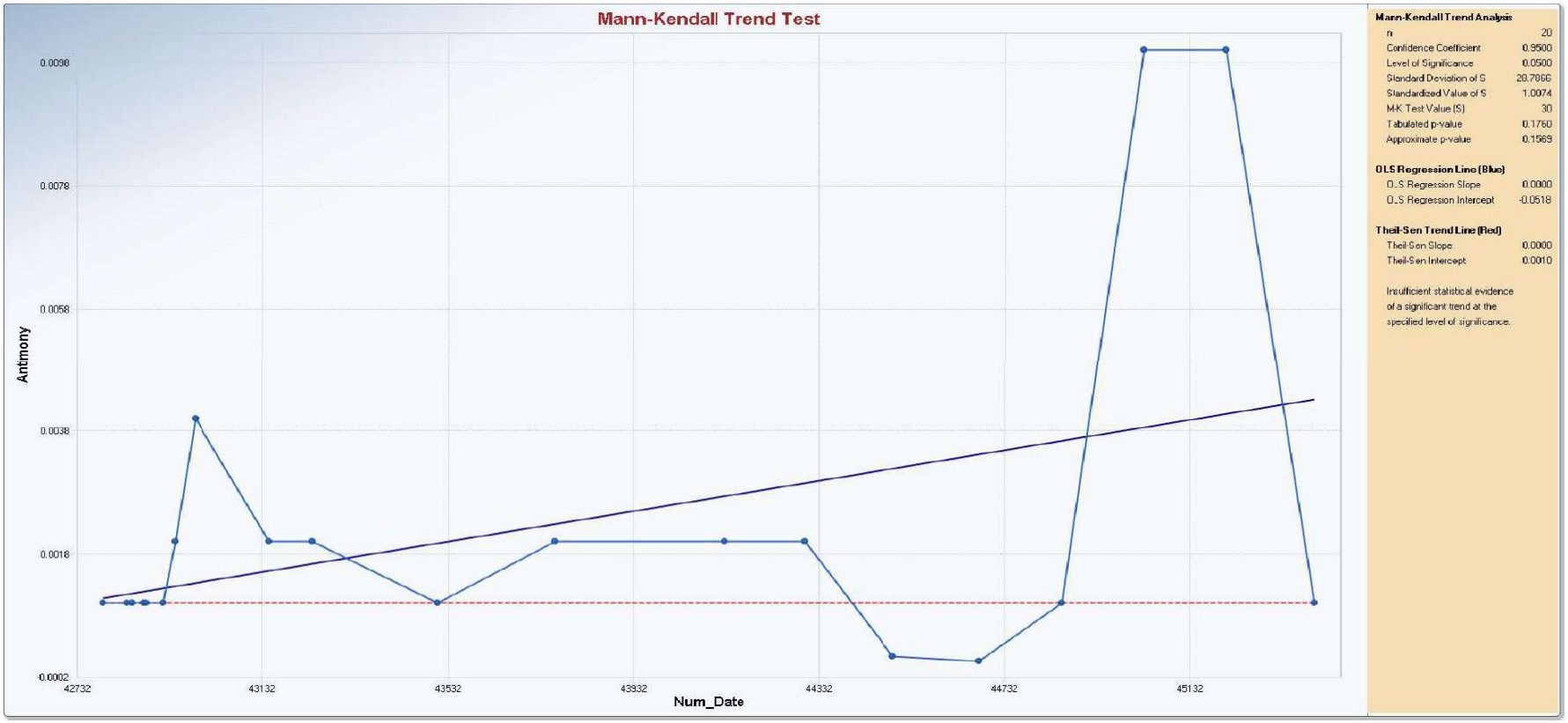
Appendix B
Time Series Plots



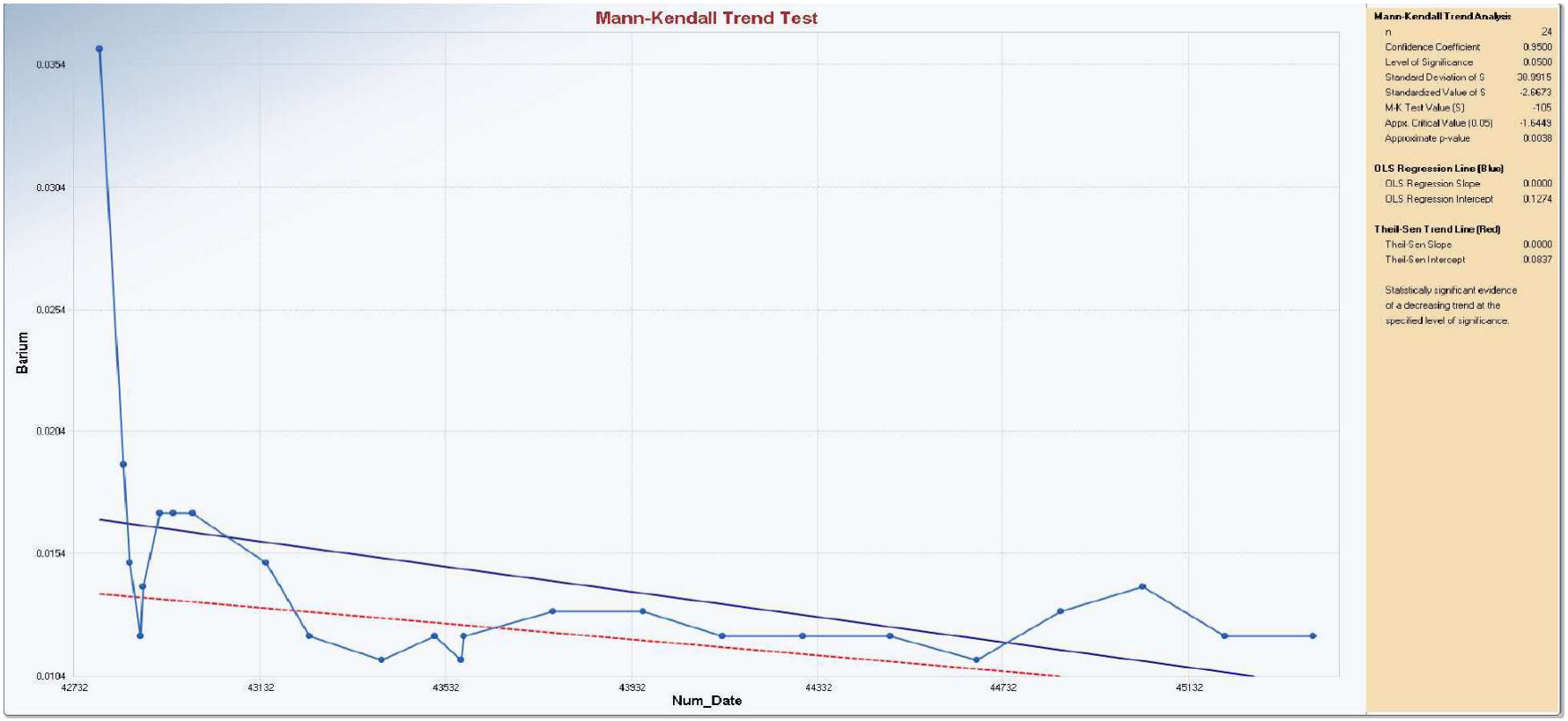
Appendix B
Time Series Plots



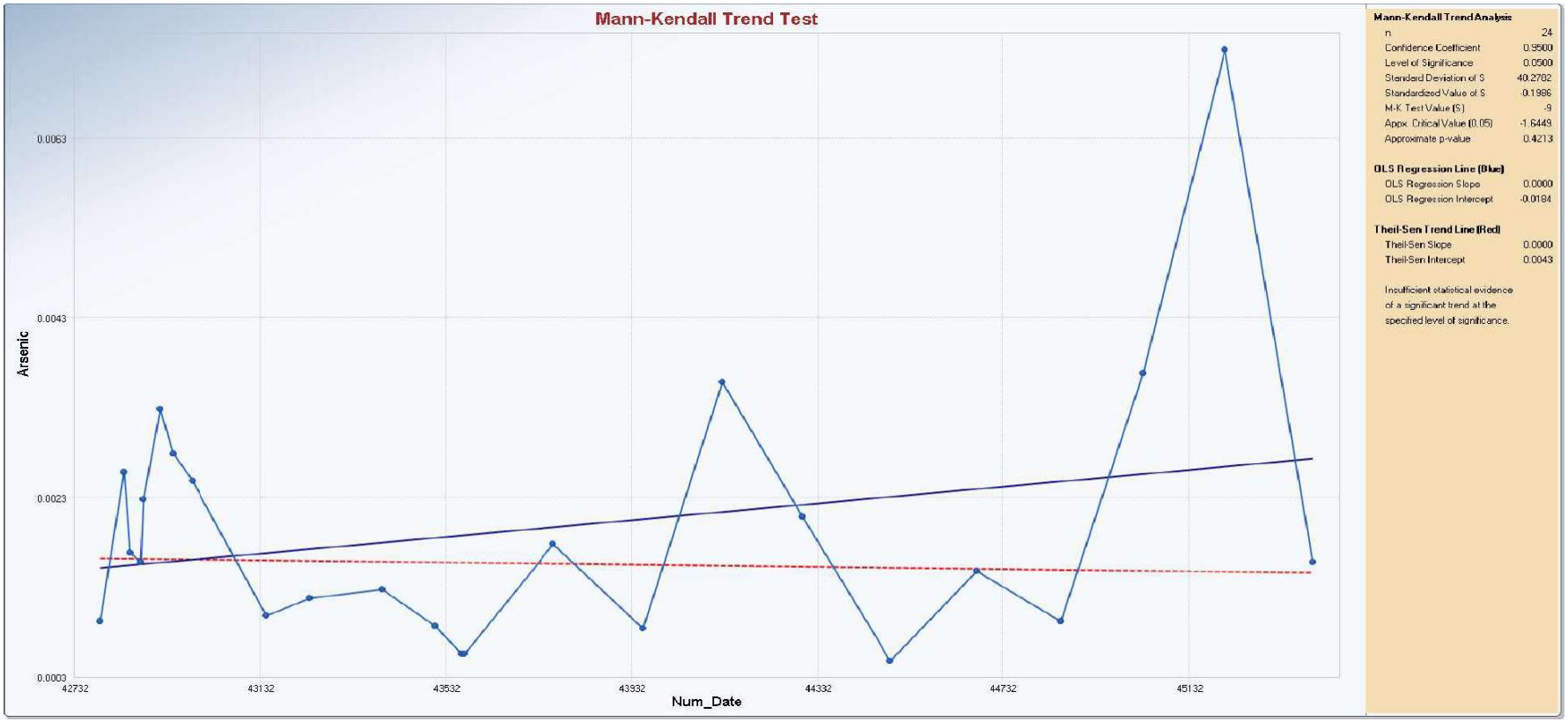
Appendix B
Time Series Plots



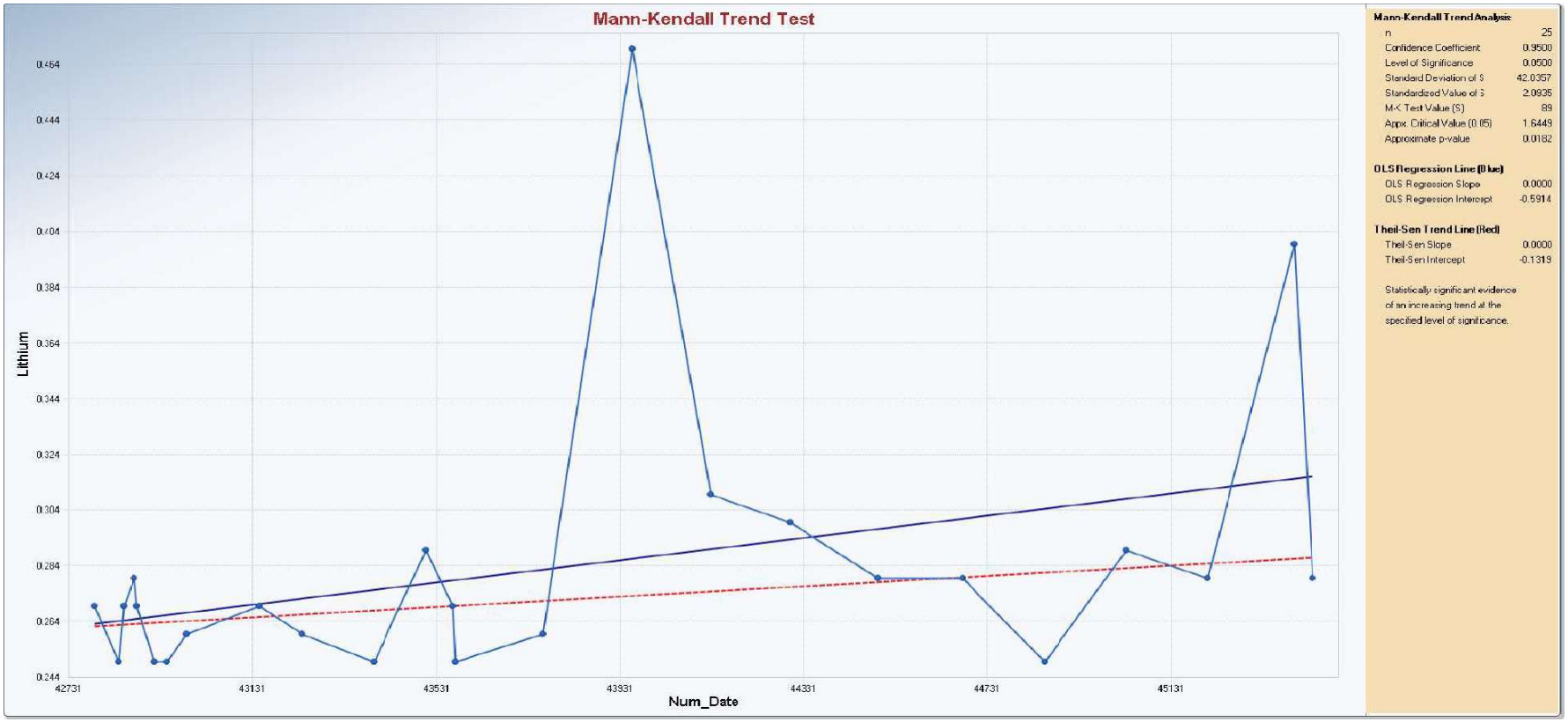
Appendix B
Time Series Plots



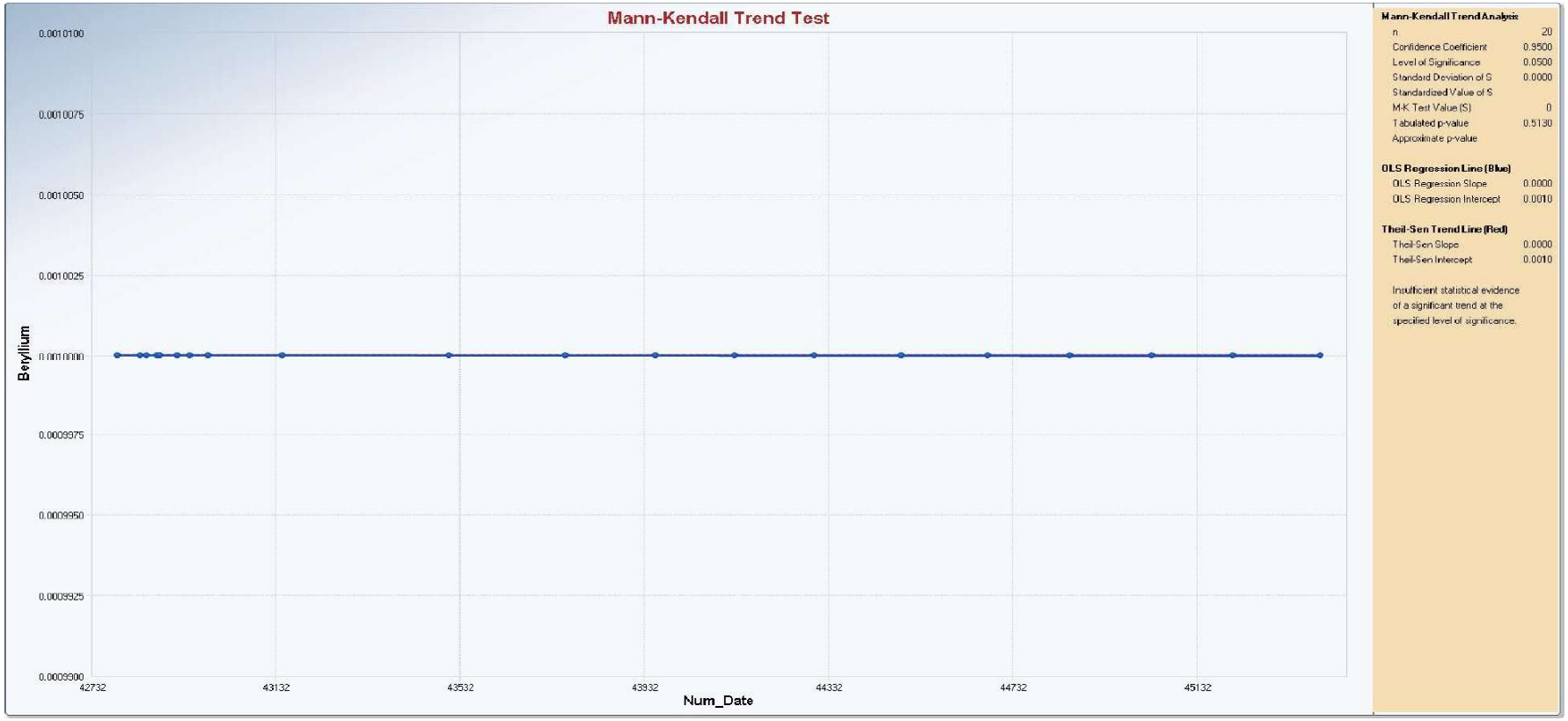
Appendix B
Time Series Plots



Appendix B
Time Series Plots



Appendix B
Time Series Plots



Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/24/2024 9:47:33 PM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Antimony

General Statistics

Number of Events Reported (m)	27
Number of Missing Events	7
Number or Reported Events Used	20
Number Values Reported (n)	26
Number Values Missing	6
Number Values Used	20
Minimum	5.4000E-5
Maximum	0.01
Mean	0.00226
Geometric Mean	0.0013
Median	0.001
Standard Deviation	0.00278
Coefficient of Variation	1.231

Mann-Kendall Test

M-K Test Value (S)	30
Tabulated p-value	0.176
Standard Deviation of S	28.79
Standardized Value of S	1.007
Approximate p-value	0.157

Insufficient evidence to identify a significant trend at the specified level of significance.

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/24/2024 9:48:47 PM

Appendix B
Time Series Statistics

From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Arsenic

General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	3
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2
Number Values Used	24
Minimum	5.0000E-4
Maximum	0.0073
Mean	0.00197
Geometric Mean	0.00158
Median	0.0016
Standard Deviation	0.00148
Coefficient of Variation	0.753

Mann-Kendall Test	
M-K Test Value (S)	-9
Critical Value (0.05)	-1.645
Standard Deviation of S	40.28
Standardized Value of S	-0.199
Approximate p-value	0.421

Insufficient evidence to identify a significant trend at the specified level of significance.

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/24/2024 9:50:26 PM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF

Appendix B
Time Series Statistics

Confidence Coefficient	0.95
Level of Significance	0.05
Barium	
General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	3
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2
Number Values Used	24
Minimum	0.011
Maximum	0.036
Mean	0.0143
Geometric Mean	0.0138
Median	0.0125
Standard Deviation	0.00511
Coefficient of Variation	0.357
Mann-Kendall Test	
M-K Test Value (S)	-105
Critical Value (0.05)	-1.645
Standard Deviation of S	38.99
Standardized Value of S	-2.667
Approximate p-value	0.00382
Statistically significant evidence of a decreasing trend at the specified level of significance.	
	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/24/2024 9:51:44 PM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Appendix B
Time Series Statistics

Beryllium	
General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	7
Number or Reported Events Used	20
Number Values Reported (n)	26
Number Values Missing	6
Number Values Used	20
Minimum	0.001
Maximum	0.001
Mean	0.001
Geometric Mean	0.001
Median	0.001
Standard Deviation	4.449E-19
Coefficient of Variation	N/A
Mann-Kendall Test	
M-K Test Value (S)	0
Tabulated p-value	0.513
Standard Deviation of S	0
Standardized Value of S	N/A
Approximate p-value	N/A
Insufficient evidence to identify a significant trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/24/2024 10:12:38 PM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Cadmium	

Appendix B
Time Series Statistics

General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	15
Number or Reported Events Used	12
Number Values Reported (n)	26
Number Values Missing	14
Number Values Used	12
Minimum	1.0000E-4
Maximum	0.001
Mean	2.8417E-4
Geometric Mean	1.7594E-4
Median	1.0000E-4
Standard Deviation	3.4550E-4
Coefficient of Variation	1.216
Mann-Kendall Test	
M-K Test Value (S)	18
Tabulated p-value	0.125
Standard Deviation of S	12.94
Standardized Value of S	1.314
Approximate p-value	0.0944
Insufficient evidence to identify a significant	
trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/24/2024 10:13:48 PM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Chromium

Appendix B
Time Series Statistics

General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	3
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2
Number Values Used	24
Minimum	5.0000E-4
Maximum	0.01
Mean	0.00206
Geometric Mean	0.00136
Median	0.001
Standard Deviation	0.00257
Coefficient of Variation	1.249
Mann-Kendall Test	
M-K Test Value (S)	43
Critical Value (0.05)	1.645
Standard Deviation of S	38.92
Standardized Value of S	1.079
Approximate p-value	0.14
Insufficient evidence to identify a significant trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/24/2024 10:16:03 PM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Cobalt	
General Statistics	
Number of Events Reported (m)	27

Appendix B
Time Series Statistics

Number of Missing Events	3
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2
Number Values Used	24
Minimum	2.5000E-4
Maximum	0.005
Mean	0.00113
Geometric Mean	7.9320E-4
Median	5.1000E-4
Standard Deviation	0.00129
Coefficient of Variation	1.141
Mann-Kendall Test	
M-K Test Value (S)	-42
Critical Value (0.05)	-1.645
Standard Deviation of S	38.09
Standardized Value of S	-1.076
Approximate p-value	0.141
Insufficient evidence to identify a significant	
trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/24/2024 10:18:09 PM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Fluoride	
General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	1

Appendix B
Time Series Statistics

Number or Reported Events Used	26
Number Values Reported (n)	26
Minimum	0.21
Maximum	10
Mean	1.047
Geometric Mean	0.717
Median	0.8
Standard Deviation	1.837
Coefficient of Variation	1.756
Mann-Kendall Test	
M-K Test Value (S)	-75
Critical Value (0.05)	-1.645
Standard Deviation of S	35.22
Standardized Value of S	-2.101
Approximate p-value	0.0178
Statistically significant evidence of a decreasing	
trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/24/2024 10:19:40 PM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Lead	
General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	3
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2

Appendix B
Time Series Statistics

Number Values Used	24
Minimum	5.0000E-4
Maximum	0.005
Mean	0.00113
Geometric Mean	8.2050E-4
Median	5.0000E-4
Standard Deviation	0.00127
Coefficient of Variation	1.117
Mann-Kendall Test	
M-K Test Value (S)	13
Critical Value (0.05)	1.645
Standard Deviation of S	36.42
Standardized Value of S	0.329
Approximate p-value	0.371
Insufficient evidence to identify a significant	
trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.110/3/2024 9:17:23 AM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Lithium	
General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	2
Number or Reported Events Used	25
Number Values Reported (n)	27
Number Values Missing	2
Number Values Used	25
Minimum	0.25

Appendix B
Time Series Statistics

Maximum	0.47
Mean	0.284
Geometric Mean	0.28
Median	0.27
Standard Deviation	0.0495
Coefficient of Variation	0.174
Mann-Kendall Test	
M-K Test Value (S)	89
Critical Value (0.05)	1.645
Standard Deviation of S	42.04
Standardized Value of S	2.093
Approximate p-value	0.0182
Statistically significant evidence of an increasing trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.110/3/2024 9:18:14 AM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Mercury	
General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	8
Number or Reported Events Used	19
Number Values Reported (n)	26
Number Values Missing	7
Number Values Used	19
Minimum	2.0000E-4
Maximum	2.0000E-4
Mean	2.0000E-4

Appendix B
Time Series Statistics

Geometric Mean	2.0000E-4
Median	2.0000E-4
Standard Deviation	5.570E-20
Coefficient of Variation	N/A
Mann-Kendall Test	
M-K Test Value (S)	0
Tabulated p-value	0.5
Standard Deviation of S	0
Standardized Value of S	N/A
Approximate p-value	N/A
Insufficient evidence to identify a significant	
trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.110/3/2024 9:22:22 AM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Molybdenum	
General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	3
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2
Number Values Used	24
Minimum	0.004
Maximum	0.042
Mean	0.00658
Geometric Mean	0.00546
Median	0.005

Appendix B
Time Series Statistics

Standard Deviation	0.00757
Coefficient of Variation	1.151
Mann-Kendall Test	
M-K Test Value (S)	-85
Critical Value (0.05)	-1.645
Standard Deviation of S	40.04
Standardized Value of S	-2.098
Approximate p-value	0.018
Statistically significant evidence of a decreasing trend at the specified level of significance.	
Mann-Kendall Trend Test Analysis	
User Selected Options	
Date/Time of Computation	ProUCL 5.110/3/2024 9:34:59 AM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Selenium	
General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	3
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2
Number Values Used	24
Minimum	2.0000E-4
Maximum	0.005
Mean	0.00132
Geometric Mean	9.0029E-4
Median	7.6500E-4
Standard Deviation	0.00143

Appendix B
Time Series Statistics

Coefficient of Variation	1.084
Mann-Kendall Test	
M-K Test Value (S)	108
Critical Value (0.05)	1.645
Standard Deviation of S	39.64
Standardized Value of S	2.699
Approximate p-value	0.00347
Statistically significant evidence of an increasing trend at the specified level of significance.	
Mann-Kendall Trend Test Analysis	
User Selected Options	
Date/Time of Computation	ProUCL 5.110/3/2024 9:41:45 AM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Thallium	
General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	5
Number or Reported Events Used	22
Number Values Reported (n)	26
Number Values Missing	4
Number Values Used	22
Minimum	1.0000E-4
Maximum	0.001
Mean	2.3636E-4
Geometric Mean	1.6894E-4
Median	1.0000E-4
Standard Deviation	2.6285E-4
Coefficient of Variation	1.112

Appendix B
Time Series Statistics

Mann-Kendall Test	
M-K Test Value (S)	26
Tabulated p-value	0.234
Standard Deviation of S	31.85
Standardized Value of S	0.785
Approximate p-value	0.216
Insufficient evidence to identify a significant trend at the specified level of significance.	

Mann-Kendall Trend Test Analysis	
User Selected Options	
Date/Time of Computation	ProUCL 5.110/3/2024 9:43:01 AM
From File	Cholla BAP_2024Q2_proUCLUpload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Total Radium

General Statistics	
Number of Events Reported (m)	27
Number of Missing Events	6
Number or Reported Events Used	21
Number Values Reported (n)	26
Number Values Missing	5
Number Values Used	21
Minimum	0.5
Maximum	1.6
Mean	0.817
Geometric Mean	0.786
Median	0.7
Standard Deviation	0.257
Coefficient of Variation	0.314

Appendix B
Time Series Statistics

Mann-Kendall Test	
M-K Test Value (S)	-70
Tabulated p-value	0.018
Standard Deviation of S	32.12
Standardized Value of S	-2.148
Approximate p-value	0.0159
Statistically significant evidence of a decreasing trend at the specified level of significance.	

Appendix B
Summary Statistics

	General Statistics on Uncensored Data	
Date/Time of Computation	ProUCL 5.19/24/2024 4:34:08 PM	
User Selected Options		
From File	Cholla BAP_2024Q2_proUCLUpload.xls	
Full Precision	OFF	

From File: Cholla BAP_2024Q2_proUCLUpload.xls

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method

Variable	NumObs	# Missing	Num Ds	NumNDs	% NDs	Min ND	Max ND	KM Mean	KM Var	KM SD	KM CV
Antimony	20	6	2	18	90.00%	0.001	0.01	9.2000E-5	1.4440E-9	3.8000E-5	0.413
Arsenic	24	2	22	2	8.33%	5.0000E-4	0.001	0.00196	2.1252E-6	0.00146	0.745
Barium	24	2	24	0	0.00%	N/A	N/A	0.0143	2.6145E-5	0.00511	0.357
Beryllium	20	6	0	20	100.00%	0.001	0.001	N/A	N/A	N/A	N/A
Cadmium	12	14	1	11	91.67%	1.0000E-4	0.001	1.0125E-4	1.094E-11	3.3072E-6	0.0327
Chromium	24	2	5	19	79.17%	5.0000E-4	0.01	7.3942E-4	2.6538E-7	5.1515E-4	0.697
Cobalt	24	2	6	18	75.00%	5.0000E-4	0.005	4.5782E-4	2.3127E-7	4.8090E-4	1.05
Fluoride	26	0	4	22	84.62%	0.4	10	0.303	0.00412	0.0642	0.212
Lead	24	2	2	22	91.67%	5.0000E-4	0.005	5.3925E-4	1.3952E-8	1.1812E-4	0.219
Lithium	25	2	24	1	4.00%	0.4	0.4	0.278	0.0018	0.0424	0.152
Mercury	19	7	0	19	100.00%	2.0000E-4	2.0000E-4	N/A	N/A	N/A	N/A
Molybdenum	24	2	23	1	4.17%	0.005	0.005	0.00655	5.5004E-5	0.00742	1.132
Selenium	24	2	10	14	58.33%	5.0000E-4	0.005	7.0622E-4	8.6476E-7	9.2993E-4	1.317
Thallium	22	4	0	22	100.00%	1.0000E-4	0.001	N/A	N/A	N/A	N/A
Total Radium	21	5	9	12	57.14%	0.6	0.8	0.706	0.0962	0.31	0.439

General Statistics for Raw Data Sets using Detected Data Only

Variable	NumObs	# Missing	Minimum	Maximum	Mean	Median	Var	SD	MAD/0.675	Skewness	CV
Antimony	2	6	5.4000E-5	1.3000E-4	9.2000E-5	9.2000E-5	2.8880E-9	5.3740E-5	5.6338E-5	N/A	0.584
Arsenic	22	2	5.8000E-4	0.0073	0.00208	0.00165	2.2425E-6	0.0015	0.00109	2.153	0.721
Barium	24	2	0.011	0.036	0.0143	0.0125	2.6145E-5	0.00511	0.00148	3.583	0.357
Beryllium	0	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium	1	14	1.1000E-4	1.1000E-4	1.1000E-4	1.1000E-4	N/A	N/A	0	N/A	N/A
Chromium	5	2	5.0000E-4	0.0022	0.00139	0.0015	6.3548E-7	7.9717E-4	0.00104	-0.183	0.575
Cobalt	6	2	2.5000E-4	0.0024	9.4167E-4	6.9000E-4	5.9370E-7	7.7052E-4	4.2995E-4	1.733	0.818
Fluoride	4	0	0.21	0.38	0.303	0.31	0.00549	0.0741	0.0741	-0.466	0.245

Appendix B
Summary Statistics

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method											
Lead	2	2	7.1000E-4	0.001	8.5500E-4	8.5500E-4	4.2050E-8	2.0506E-4	2.1497E-4	N/A	0.24
Lithium	24	2	0.25	0.47	0.279	0.27	0.00194	0.0441	0.0148	3.809	0.158
Mercury	0	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Molybdenum	23	2	0.004	0.042	0.00664	0.005	5.9785E-5	0.00773	5.9303E-4	4.746	1.164
Selenium	10	2	2.0000E-4	0.0044	0.00121	7.6500E-4	1.5506E-6	0.00125	3.5582E-4	2.265	1.032
Thallium	0	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Radium	9	5	0.5	1.6	0.974	0.966	0.109	0.331	0.246	0.641	0.34

Percentiles using all Detects (Ds) and Non-Detects (NDs)											
Variable	**NumObs**	**# Missing**	**10%ile**	**20%ile**	**25%ile(Q1)**	**50%ile(Q2)**	**75%ile(Q3)**	**80%ile**	**90%ile**	**95%ile**	**99%ile**
Antimony	20	6	9.1300E-4	0.001	0.001	0.001	0.002	0.002	0.0046	0.01	0.01
Arsenic	24	2	6.6400E-4	9.2000E-4	9.4000E-4	0.0016	0.00253	0.00268	0.00351	0.00369	0.00647
Barium	24	2	0.0113	0.012	0.012	0.0125	0.015	0.0158	0.017	0.0187	0.0321
Beryllium	20	6	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cadmium	12	14	1.0000E-4	1.0000E-4	1.0000E-4	1.0000E-4	2.5000E-4	3.6000E-4	9.4000E-4	0.001	0.001
Chromium	24	2	5.0000E-4	8.5200E-4	0.001	0.001	0.002	0.00204	0.00346	0.0091	0.01
Cobalt	24	2	5.0000E-4	5.0000E-4	5.0000E-4	5.1000E-4	0.001	0.00104	0.00228	0.00461	0.005
Fluoride	26	0	0.36	0.4	0.8	0.8	0.8	0.8	0.8	0.8	7.7
Lead	24	2	5.0000E-4	5.0000E-4	5.0000E-4	5.0000E-4	0.001	0.001	0.002	0.00455	0.005
Lithium	25	2	0.25	0.25	0.26	0.27	0.28	0.29	0.306	0.382	0.453
Mercury	19	7	2.0000E-4	2.0000E-4	2.0000E-4	2.0000E-4	2.0000E-4	2.0000E-4	2.0000E-4	2.0000E-4	2.0000E-4
Molybdenum	24	2	0.00423	0.00452	0.00483	0.005	0.00535	0.00562	0.0059	0.00641	0.0338
Selenium	24	2	5.0000E-4	5.0000E-4	5.0000E-4	7.6500E-4	0.00105	0.00152	0.00374	0.00491	0.005
Thallium	22	4	1.0000E-4	1.0000E-4	1.0000E-4	1.0000E-4	2.0000E-4	2.0000E-4	4.0000E-4	9.7000E-4	0.001
Total Radium	21	5	0.6	0.7	0.7	0.7	0.8	0.966	1.1	1.3	1.54

APPENDIX I

WSP TECHNICAL MEMORANDUM DOCUMENTING THE STATISTICAL ANALYSIS OF APPENDIX III CONSTITUENT DATA COLLECTED FOR THE BAM THROUGH NOVEMBER 2023

TECHNICAL MEMORANDUM

To:	Arizona Public Service Company	Project No.	US0023513.9708-US-2024 Cholla CCR Compliance SVC
By:	Samantha O'Shea	Reviewed by:	Maren Henley, PE
Tel:	602-733-6000	CC:	File
Date:	April 8, 2024		

Re: CCR GROUNDWATER DETECTION MONITORING
STATISTICAL ANALYSIS AND RESULTS FOR THE BOTTOM ASH MONOFILL
APPENDIX III CONSTITUENT DATA COLLECTED THROUGH NOVEMBER 2023
Arizona Public Service Company Cholla Power Plant – Navajo County, Arizona

1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) presents the results of a statistical evaluation of groundwater monitoring data collected from monitoring wells downgradient of the Bottom Ash Monofill (BAM) located at the Arizona Public Service Company (APS) Cholla Power Plant (Site) in Navajo County, Arizona. The statistical evaluation was performed by Geosciences Consulting LLC (Geosciences Consulting), a subcontractor to WSP USA Environment and Infrastructure, Inc. (WSP) pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020).

The BAM is a Site CCR unit that is currently in detection monitoring. The CCR Rule requires semi-annual evaluations of Appendix III constituent data collected from BAM downgradient wells on an ongoing basis to determine if a statistically significant increase (SSI) exists over the respective background threshold values (BTVs) presented in Attachment A. The statistical evaluation documented herein incorporates Appendix III constituent data collected from BAM downgradient wells M-59, M-60, and M-61 and BAM background well M-54 during the November 2023 semi-annual sampling event. The statistical evaluation was performed using the results of the 12 initial (or baseline) sampling rounds conducted prior to November 2017 and 13 detection monitoring sampling rounds beginning in November 2017. Groundwater concentrations are then compared to the M-54 background levels, represented by the interwell or intrawell BTVs calculated for each Appendix III constituent in the *CCR Groundwater Detection Monitoring Statistical Analysis and Results for the BAM, Appendix III Constituent Data Collected through October 2020* (Wood, 2021). Details of the results of the statistical evaluation are presented in Section 2.0.

2.0 STATISTICAL EVALUATION RESULTS

Attachment A presents the statistical evaluation conducted by Geosciences Consulting. The results of the November 2023 BAM downgradient well statistical evaluation are as follows:

- There are currently no SSIs over their respective BTVs for Appendix III constituents.
- No Appendix III constituents were detected at concentrations exceeding their respective BTVs during the November 2023 groundwater sampling event.
- A statistically significant decreasing temporal trend is evident for concentrations of chloride at M-59 and concentrations of boron and calcium at M-60.
- A statistically significant increasing temporal trend is evident for concentrations of sulfate at M-60. Sulfate did not exceed its intrawell BTVs and no SSI is present.

3.0 RECOMMENDATIONS

Based on the results of the statistical evaluation presented in Attachment A and pursuant to the CCR Rule, continuation of detection monitoring at a semi-annual frequency for Appendix III constituents at the BAM is warranted because there are currently no SSIs over Appendix III constituent background levels.

The BAM SDAWP recommends updating BTVs every couple of years. There are several Appendix III constituents in background well M-54 (Attachment A), including chloride, sulfate, and total dissolved solids (TDS) that exhibit concentrations in exceedance of their respective BTVs (Table 1 of Attachment A) in recent years. This is one indication that the BTVs need updating to assure they are representative of current groundwater conditions at the BAM. BTVs are currently planned to be updated during the Fall 2024 sampling evaluation.

4.0 REFERENCES

- Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).
- United States Environmental Protection Agency (USEPA), 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007*. Environmental Protection Agency Office of Resource Conservation and Recovery.
- Wood, 2021. CCR Groundwater Detection Monitoring Statistical Analysis and Results for the BAM, Appendix III Constituent Data Collected through October 2020. Arizona Public Service Cholla Power Plant, Navajo County, Arizona. Prepared for Arizona Public Service. April 12, 2021.
- WSP USA Environment & Infrastructure, Inc. (WSP), 2023. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Cholla Power Plant, Navajo County, Arizona. Prepared for Arizona Public Service. January 10, 2023.

ATTACHMENT A

DETECTION MONITORING STATISTICAL EVALUATION OF BAM - GEOSCIENCE CONSULTING STRATEGIES LLC

Technical Memorandum

To: Maren Henley, PE
WSP USA Environment & Infrastructure Inc.

From: Carla Landrum, PhD, PG
Geoscience Consulting Strategies LLC

Date: March 28, 2024

Subject: **CCR Groundwater Semiannual Detection Monitoring**
Statistical Evaluation of BAM Data through November 2023
Arizona Public Service Company Cholla Power Plant – Navajo County, Arizona

1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) documents the ongoing statistical evaluation of detection monitoring (i.e., Appendix III constituents) groundwater data associated with the Bottom Ash Monofill (BAM) located at the Arizona Public Service Company (APS) Cholla Power Plant (Cholla) in Navajo County, Arizona. This routine statistical evaluation is completed by Geoscience Consulting Strategies LLC in accordance with the *Statistical Data Analysis Work Plan* (SDAWP) for the Cholla Power Plant and the Coal Combustion Residuals (CCR) Rule (Federal Register, 2020; WSP USA Environment & Infrastructure Inc. [WSP], 2023).

This statistical evaluation incorporates the November 2023 semiannual detection monitoring at the BAM. The following sections present data inputs, statistical methods, results and recommendations for the subject analysis.

2.0 DATA INPUTS

The BAM groundwater monitoring well network consists of one background monitoring well (M-54) and three compliance (i.e., downgradient) monitoring wells (M-59, M-60 and M-61).

The BAM detection monitoring program is scheduled to perform statistical evaluations semiannually. The period of evaluation for this subject analysis ranges from November 2015 through November 2023 and includes the minimum of eight initial, or baseline, sampling rounds required by the CCR Rule (spanning December 2015 to July 2017) and thirteen subsequent sampling rounds of detection monitoring that occur on a semi-annual frequency (spanning September 2017 to November 2023, as shown in the table inset below). Due principally to the CCR Rule requirement that a minimum of eight initial rounds of data be collected from the site prior to October 17, 2017, the frequency of sample collection prior to this date is short and variable (e.g., biweekly to quarterly sampling).

Geoscience Consulting Strategies LLC
PO Box 536
Rancho Cordova, CA 95741

BAM Sampling Round	Date
1st	September 2017
2nd	April 2018
3rd	November 2018
4th	May 2019
5th	December 2019
6th	June 2020
7th	November 2020
8th	April 2021
9th	November 2021
10th	May 2022
11th	October 2022
12th	April 2023
13th	November 2023

This data evaluation evaluates between 25 and 29 samples each for boron, calcium, chloride, sulfate, field pH and total dissolved solids (TDS) within each compliance monitoring well. Appendix A contains the contents of the data upload tables for the subject analysis. Data inputs for this statistical analysis were prepared, and provided by, WSP. The Appendix III analytes are listed by name or chemical symbol as column headers in the ProUCL data upload table. By ProUCL convention, each analyte has a corresponding data column (indicated with a "D_" prefix) that indicates if the analyte was detected or not at a concentration that exceeds the analytical reporting limit, where detectable concentrations are symbolized by a "1" and non-detectable concentrations are symbolized by a "0." The detection frequency is 100% for all sample data listed in Appendix A.

Table 1 details the not-to-exceed Background Threshold Values (BTVs) and method of calculation for the BAM. Per the SDAWP (WSP, 2023), the BTVs are updated over time. The dates in Table 1 reflect the sampling period that represents the current BAM BTVs.

3.0 METHODS

This statistical analysis follows the statistical methods and approaches put forth in the SDAWP (WSP, 2023) and the United States Environmental Protection Agency (US EPA) Unified Guidance (2009). The subject statistical analysis consists of: 1) exploratory data analysis (EDA), including outlier analysis, calculating summary statistics, temporal trend analysis for all constituent-well pairings and fitting a statistical distribution model (i.e., Goodness-of-Fit Test Statistics) to sample populations and 2) comparing the November 2023 sample concentrations to corresponding not-to-exceed BTVs in Table 1. If an exceedance exists, the statistical significance of this exceedance is assessed through the prescribed resampling strategy.

4.0 RESULTS

Table 2 summarizes: 1) which Appendix III constituents exhibit exceedances, if applicable, above their respective BTVs by compliance well and 2) which constituents exhibit statistically significant ($p<0.05$) temporal trends.

Appendix B contains the raw ProUCL EDA outputs as reference for the following statistical findings:

Monitoring Well M-59. The Appendix III constituent concentrations at this monitoring location do not show exceedances over their respective BTVs for the November 2023 sampling event.

The statistically significant ($p<0.05$) trends for chloride (decreasing) remains persistent at this monitoring location during the November 2023 sampling event. The April 2023 statistically significant ($p<0.05$) increasing trend for fluoride is no longer statistically significant during the November 2023 sampling event. There are no significant ($p<0.05$) temporal trends for the remaining Appendix III constituents.

Monitoring Well M-60. The Appendix III constituent concentrations at this monitoring location do not show exceedances over their respective BTVs for the November 2023 sampling event.

During the November 2023 sampling event, the statistically significant ($p<0.05$) trends for boron (decreasing), calcium (decreasing) and sulfate (increasing) at this monitoring location persist. There are no significant ($p<0.05$) temporal trends for the remaining Appendix III constituents.

Monitoring Well M-61. The Appendix III constituent concentrations at this monitoring location do not show exceedances over their respective BTVs for the November 2023 sampling event.

There are no significant ($p<0.05$) temporal trends for Appendix III constituents at this monitoring location.

5.0 RECOMMENDATIONS

There are several Appendix III constituents in background well M-54 (see Appendix A), including chloride sulfate and TDS, that exhibit concentrations in exceedance of their respective BTVs (see Table 1) in recent years. The BTVs shown in Table 1 represent sample data through 2020 and 2021, depending on the type of UPL calculation. Given approximately two to three years have passed since the last BTV update, and background well constituent concentrations were recently detected above the BTVs shown in Table 1, it is recommended that BTVs for the BAM be updated.

6.0 REFERENCES

Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).

WSP USA Environment & Infrastructure Inc. [WSP], 2023, 2023. Statistical Data Analysis Work Plan. Coal Combustion Residual Rule Groundwater Monitoring System Compliance. Cholla Power Plant. Navajo County, Arizona. Prepared for Arizona Public Service. January 30, 2023.

United States Environmental Protection Agency (US EPA), 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007. Environmental Protection Agency Office of Resource Conservation and Recovery.

ATTACHMENTS

Table 1 – BTVs for the Cholla BAM
Table 2 – Cholla BAM Downgradient Sample Data Summary

Appendix A – ProUCL Data Upload Table
Appendix B – ProUCL EDA Output Files

TABLES

Table 1
BTVs for the Cholla BAM
Appendix III Statistical Analysis

Background Well	Dates Corresponding to Data Used to Derive UPL	Constituent[2]	Interwell BTVs (Calculation Method)	Units	Resampling Strategy[1]
M-54	12/3/2015-10/21/2020	Boron	0.55 (P-UPLT)	mg/L	1 of 2
M-54	12/3/2015-10/21/2020	Calcium	101 (NP-UPLT)	mg/L	1 of 3
M-54	12/3/2015-10/21/2020	Chloride	1,600 (NP-UPL)	mg/L	1 of 3
M-54	12/3/2015-10/21/2020	Fluoride	1.8 (NP-UPL)	mg/L	1 of 3
M-54	12/3/2015-10/21/2020	pH (upper limit)	7.8 (P-UPL)	SU	1 of 2
M-54	12/3/2015-10/21/2020	pH (lower limit)	7.3 (P-LPL)	SU	1 of 2
M-54	12/3/2015-10/21/2020	Sulfate	380 (NP-UPL)	mg/L	1 of 3
M-54	12/3/2015-10/21/2020	TDS	3225 (P-UPL)	mg/L	1 of 2

Compliance Well	Dates Corresponding to Data Used to Derive UPL	Constituent	Intrawell BTVs (Calculation Method)	Units	Resampling Strategy[1]
M-60	12/3/15-4/16/2021	Fluoride	1.7 (NP-UPL)	mg/L	1 of 2
M-61	12/3/15-4/16/2021	Fluoride	1.6 (NP-UPL)	mg/L	1 of 2

Notes:
BAM = Bottom Ash Pond
BTV = background threshold value
LPL = lower prediction limit
mg/L = milligrams per liter
NP = Non Parametric
P = Parametric
SU = standard units
TDS = total dissolved solids
UPL(T) = upper predicition limit (trend)

[1] A 1 of 2 resampling strategy is in place for interwell parametric prediction limits. A 1 of 2 or a 1 of 3 resampling strategy is in place for non-parametric prediction limits and the limit represents the second highest concentration (i.e., second-order) value or the maximum concentration value of the data set (i.e., maximum order statistic), respectively.

[2] The BTV for calcium represents the second highest concentration value because the maximum concentration value is a percieved outlier and was removed from the evaluation.

Table 2
Cholla BAM Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
M-59	7803_O	03-Dec-15	*0.5*	*87*	*1300*	*1.3*	*7.53*	*340*	*2700*
M-59	CH-M-59-0316_O	10-Mar-16	*0.48*	*85*	*1400*	*1.3*	*7.57*	*350*	*2700*
M-59	CH-CCR-M59-516_O	20-May-16	*0.49*	*86*	*1400*	*1.4*	*---*	*340*	*2700*
M-59	CH-CCR-M59-816_O	27-Aug-16	*0.5*	*89*	*1400*	*1.4*	*7.6*	*350*	*2700*
M-59	CH-CCR-M59-916_O	22-Sep-16	*0.5*	*88*	*1300*	*1.4*	*7.8*	*340*	*2900*
M-59	CH-CCR-M59-217_O	22-Feb-17	*0.48*	*86*	*1200*	*1.3*	*7.8*	*330*	*2800*
M-59	CH-CCR-M59-41117_O	11-Apr-17	*0.49*	*90*	*1400*	*1.3*	*8.1*	*350*	*2800*
M-59	CH-CCR-M59-42417_O	24-Apr-17	*0.52*	*89*	*1300*	*1.4*	*7.7*	*350*	*2800*
M-59	CH-CCR-M59-51917_O	19-May-17	*0.5*	*93*	*1400*	*1.4*	*7.8*	*360*	*2700*
M-59	CH-CCR-M59-52517_O	25-May-17	*0.5*	*88*	*1300*	*1.4*	*7.6*	*350*	*2700*
M-59	CH-CCR-M59-62917_O	29-Jun-17	*0.49*	*84*	*1400*	*1.5*	*7.8*	*370*	*2500*
M-59	CH-CCR-M59-72917_O	29-Jul-17	*0.53*	*92*	*1300*	*1.5*	*7.6*	*340*	*2800*
M-59	CH-CCR-M59-90517_O	05-Sep-17	*0.51*	*90*	*1300*	*1.4*	*7.7*	*360*	*2700*
M-59	CH-CCR-M59-120717_O	07-Dec-17	0.49	86	1400	1.4	7.7	350	2700
M-59	CH-CCR-M-59-52518_O	25-May-18	0.49	85	1400	1.4	7.5	350	2700
M-59	CH-CCR-M-59-102618	26-Oct-18	0.48	88	1400	1.4	7.6	360	2500
M-59	CH-CCR-M59-40919	09-Apr-19	0.5	86	1200	1.4	7.9	330	2700
M-59	CH-CCR-M59-102319	23-Oct-19	0.48	84	1400	1.3	7.5	350	2800
M-59	CH-CCR-M59-0520	07-May-20	0.5	89	1200	1.8	7.7	350	2800
M-59	CH-CCR-M59-1020	21-Oct-20	0.48	85	1300	1.4	7.5	340	2700
M-59	CH-CCR-M59-0421	16-Apr-21	0.49	87	1200	1.4	7.6	340	2800
M-59	CH-CCR-M59-1021	24-Oct-21	0.49	84	1300	1.4	7.7	400	2300
M-59	CH-CCR-M59-1121	19-Nov-21	NA	NA	NA	NA	NA	360	2600
M-59	CH-CCR-M59-0522	13-May-22	0.5	89	1200	1.4	7.9	350	2900
M-59	CH-CCR-M59-0822	30-Aug-22	---	---	---	---	7.6	---	---
M-59	CH-CCR-M59-1022	19-Oct-22	0.48	79	1200	1.4	7.6	350	2700
M-59	CH-CCR-M59-0423	12-Apr-23	0.51	93	1300	1.4	7.8	360	2800
M-59	CH-CCR-M59-1023	21-Nov-23	0.53	90	740	1.3	7.7	320	2800
	Units:		*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
	BTV [1,2]:		*0.55*	*101*	*1600*	*1.8*	*7.8/7.3*	*380*	*3225*
	Temporal Trend [3]:		*None*	*None*	*Decreasing*	*None*	*None*	*None*	*None*

Table 2
Cholla BAM Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
M-60	7801_O	03-Dec-15	*0.54*	*88*	*1400*	*1.3*	*7.56*	*350*	*2800*
M-60	CH-M-60A-0316_O	09-Mar-16	*0.5*	*86*	*1400*	*1.4*	*7.83*	*350*	*2800*
M-60	CH-CCR-M60-516_O	20-May-16	*0.5*	*89*	*1400*	*1.5*	*---*	*350*	*2800*
M-60	CH-CCR-M60-816_O	27-Aug-16	*0.52*	*90*	*1400*	*1.5*	*7.5*	*360*	*2800*
M-60	CH-CCR-M60-916_O	22-Sep-16	*0.51*	*88*	*1300*	*1.4*	*7.8*	*350*	*3000*
M-60	CH-CCR-M60-217_O	22-Feb-17	*0.52*	*91*	*1300*	*1.4*	*7.8*	*340*	*2800*
M-60	CH-CCR-M60-41117_O	11-Apr-17	*0.48*	*90*	*1400*	*1.4*	*8*	*360*	*2900*
M-60	CH-CCR-M60-42417_O	24-Apr-17	*0.53*	*86*	*1400*	*1.4*	*7.8*	*350*	*2700*
M-60	CH-CCR-M60-51917_O	19-May-17	*0.53*	*92*	*1400*	*1.4*	*7.7*	*360*	*2800*
M-60	CH-CCR-M60-52517_O	25-May-17	*0.51*	*86*	*1300*	*1.4*	*7.7*	*350*	*2800*
M-60	CH-CCR-M60-62917_O	29-Jun-17	*0.51*	*84*	*1500*	*1.5*	*7.7*	*440*	*2500*
M-60	CH-CCR-M60-72917_O	29-Jul-17	*0.53*	*89*	*1400*	*1.5*	*7.6*	*370*	*2800*
M-60	CH-CCR-M60-90517_O	05-Sep-17	*0.53*	*90*	*1400*	*1.5*	*7.6*	*360*	*2800*
M-60	CH-CCR-M60-120717_O	07-Dec-17	0.5	85	1500	1.4	7.6	360	2900
M-60	CH-CCR-M-60-52518_O	25-May-18	0.5	83	1400	1.5	7.5	350	2800
M-60	CH-CCR-M-60-102618	26-Oct-18	0.49	88	1400	1.4	7.7	350	2600
M-60	CH-CCR-M60-40919	09-Apr-19	0.51	84	1300	1.4	7.7	350	2800
M-60	CH-CCR-M60-102219	22-Oct-19	0.5	85	1400	1.4	7.6	360	2800
M-60	CH-CCR-M60-0520	07-May-20	0.5	88	1200	1.7	7.7	350	2900
M-60	CH-CCR-M60-1020	21-Oct-20	0.48	82	1400	1.4	7.5	340	2900
M-60	CH-CCR-M60-0421	16-Apr-21	0.49	85	1300	1.5	7.8	340	4200
M-60	CH-CCR-M60-0721	07-Jul-21	---	---	---	---	---	---	2700
M-60	CH-CCR-M60-1021	24-Oct-21	0.49	85	1300	1.5	7.6	450	2900
M-60	CH-CCR-M60-1121	19-Nov-21	NA	NA	NA	NA	NA	370	2200
M-60	CH-CCR-M60-0522	13-May-22	0.5	87	1400	1.4	7.8	360	3800
M-60	CH-CCR-M60-0822	31-Aug-22	---	---	---	---	---	---	2900
M-60	CH-CCR-M60-1022	20-Oct-22	0.48	80	1300	1.5	7.5	400	2700
M-60	CH-CCR-M60-0123	26-Jan-23	---	---	1400	1.5	---	380	---
M-60	CH-CCR-M60-0523	10-May-23	0.51	79	1400	1.4	7.7	370	2800
M-60	CH-CCR-M60-1023	20-Nov-23	0.53	88	1300	1.4	7.6	350	2900
		Units:	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
		BTV [1,2]:	*0.55*	*101*	*1600*	*1.7*	*7.8/7.3*	*380*	*3225*
		Temporal Trend [3]:	*Decreasing*	*Decreasing*	*None*	*None*	*None*	*Increasing*	*None*

Table 2
Cholla BAM Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
M-61	7802_O	03-Dec-15	*0.51*	*90*	*1400*	*1.3*	*7.22*	*350*	*2800*
M-61	CH-M-61-0316_O	10-Mar-16	*0.49*	*90*	*1400*	*1.4*	*7.59*	*340*	*2800*
M-61	CH-CCR-M61-516_O	20-May-16	*0.49*	*89*	*1400*	*1.4*	*---*	*350*	*2800*
M-61	CH-CCR-M61-816_O	27-Aug-16	*0.5*	*90*	*1400*	*1.5*	*7.5*	*360*	*2900*
M-61	CH-CCR-M61-916_O	22-Sep-16	*0.5*	*90*	*1300*	*1.4*	*7.9*	*350*	*3000*
M-61	CH-CCR-M61-217_O	22-Feb-17	*0.5*	*92*	*1100*	*1.4*	*7.8*	*340*	*2700*
M-61	CH-CCR-M61-41117_O	11-Apr-17	*0.5*	*93*	*1700*	*1.4*	*8*	*420*	*3000*
M-61	CH-CCR-M61-42417_O	24-Apr-17	*0.52*	*88*	*1400*	*1.4*	*7.7*	*360*	*2700*
M-61	CH-CCR-M61-51917_O	19-May-17	*0.5*	*92*	*1400*	*1.3*	*7.8*	*370*	*2800*
M-61	CH-CCR-M61-52517_O	25-May-17	*0.51*	*92*	*1400*	*1.4*	*7.7*	*370*	*2800*
M-61	CH-CCR-M61-62917_O	29-Jun-17	*0.5*	*86*	*1500*	*1.5*	*7.8*	*380*	*2700*
M-61	CH-CCR-M61-72917_O	29-Jul-17	*0.52*	*94*	*1300*	*1.5*	*7.6*	*360*	*2900*
M-61	CH-CCR-M61-90517_O	05-Sep-17	*0.5*	*91*	*1400*	*1.5*	*7.6*	*360*	*2800*
M-61	CH-CCR-M61-120717_O	07-Dec-17	0.49	88	1500	1.4	7.6	360	2900
M-61	CH-CCR-M-61-52518_O	25-May-18	0.48	87	1400	1.5	7.5	390	2800
M-61	CH-CCR-M-61-102618	26-Oct-18	0.48	91	1400	1.4	7.5	360	2600
M-61	CH-CCR-M61-40919	09-Apr-19	0.5	88	1300	1.4	7.7	340	2800
M-61	CH-CCR-M61-102219	22-Oct-19	0.48	87	1400	1.4	7.8	350	2700
M-61	CH-CCR-M61-0520	07-May-20	0.51	93	1300	1.6	7.7	350	3000
M-61	CH-CCR-M61-1020	21-Oct-20	0.48	88	1400	1.4	7.5	350	2700
M-61	CH-CCR-M61-0421	16-Apr-21	0.49	91	1300	1.5	7.8	340	2900
M-61	CH-CCR-M61-1021	24-Oct-21	0.48	88	1400	1.4	7.6	400	3200
M-61	CH-CCR-M61-1121	19-Nov-21	---	---	---	---	---	370	2300
M-61	CH-CCR-M61-0522	13-May-22	0.49	90	1200	1.4	7.6	360	3800
M-61	CH-CCR-M61-0822	31-Aug-22	---	---	---	---	---	---	2900
M-61	CH-CCR-M61-1022	19-Oct-22	0.49	86	1300	1.5	7.7	360	2800
M-61	CH-CCR-M61-0423	12-Apr-23	0.51	97	1400	1.4	7.8	350	2900
M-61	CH-CCR-M61-1023	20-Nov-23	0.53	93	1300	1.3	7.7	350	2900
	Units:		*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
	BTV [1,2]:		*0.55*	*101*	*1600*	*1.6*	*7.8/7.3*	*380*	*3225*
	Temporal Trend [3]:		*None*	*None*	*None*	*None*	*None*	*None*	*None*

Table 2
Cholla BAM Downgradient Sample Data Summary
Appendix III Statistical Analysis

Notes:

BTV = background threshold value	*0.50*	Value from baseline monitoring period (December 2015 to September 2017)
mg/L = milligrams per liter		Reported value in current sampling round exceeds the BTV
TDS = total dissolved solids		Statistically significant increasing trend present
UPL = upper prediction limit		Statistically significant decreasing trend present
SU = standard units	*None*	Insufficient evidence to identify a trend.

[1] New values calculated for this sampling round presented in bolded red text; see Table 1 for relevant BTV information.

[2] For pH, values presented refer to the Upper Prediction Limit/Lower Prediction Limit, respectively. Values represent field pH measurements.

[3] Temporal trends evaluated with Mann-Kendall trend tests ($p<0.05$); tied values (sequential sample concentrations that are equal overtime) can cause misleading trend results.

APPENDIX A

PROUCL DATA UPLOAD TABLE

Appendix A - PROUCL DATA UPLOAD TABLE

Well Name	Field Sample ID	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	pH	D_pH	Sulfate	D_Sulfate	TDS	D_TDS
M-54	7799	12/3/2015	0.52	1	100	1	1500	1	1.2	1	7.34	1	380	1	3000	1
M-54	CH-M-54-0316	3/10/2016	0.53	1	100	1	1600	1	1.3	1	7.56	1	360	1	2900	1
M-54	CH-CCR-M54-516	5/20/2016	0.51	1	100	1	1500	1	1.4	1	NA	NA	350	1	3000	1
M-54	CH-CCR-M54-816	8/27/2016	0.53	1	110	1	1600	1	1.4	1	7.5	1	370	1	3100	1
M-54	CH-CCR-M54-916	9/22/2016	0.52	1	99	1	1400	1	1.4	1	7.7	1	350	1	3200	1
M-54	CH-CCR-M54-217	2/21/2017	0.52	1	100	1	1300	1	1.3	1	7.7	1	350	1	2900	1
M-54	CH-CCR-M54-41117	4/11/2017	0.51	1	100	1	1500	1	1.2	1	7.7	1	360	1	3100	1
M-54	CH-CCR-M54-42417	4/24/2017	0.53	1	95	1	1500	1	1.3	1	7.6	1	370	1	3000	1
M-54	CH-CCR-M54-51917	5/19/2017	0.5	1	99	1	1600	1	1.3	1	7.8	1	380	1	3200	1
M-54	CH-CCR-M54-52517	5/25/2017	0.52	1	100	1	1500	1	1.4	1	7.7	1	370	1	3200	1
M-54	CH-CCR-M54-62917	6/29/2017	0.51	1	97	1	1600	1	1.4	1	7.6	1	380	1	2900	1
M-54	CH-CCR-M54-72917	7/29/2017	0.56	1	100	1	1500	1	1.4	1	7.4	1	350	1	3100	1
M-54	CH-CCR-M54-90517	9/5/2017	0.55	1	100	1	1500	1	1.4	1	7.5	1	370	1	3100	1
M-54	CH-CCR-M54-120717	12/7/2017	0.51	1	97	1	1600	1	1.4	1	7.6	1	360	1	3000	1
M-54	CH-CCR-M-54-52518	5/25/2018	0.5	1	96	1	1500	1	1.4	1	7.4	1	350	1	3000	1
M-54	CH-CCR-M-54-102618	10/26/2018	0.5	1	100	1	1500	1	1.4	1	7.5	1	360	1	2900	1
M-54	CH-CCR-M54-40919	4/9/2019	0.53	1	98	1	1400	1	1.3	1	7.7	1	340	1	3100	1
M-54	CH-CCR-M54-102219	10/22/2019	0.49	1	95	1	1500	1	1.3	1	7.4	1	350	1	2900	1
M-54	CH-CCR-M54-0520	5/7/2020	0.51	1	98	1	1400	1	1.8	1	7.6	1	360	1	3100	1
M-54	CH-CCR-M54-1020	10/21/2020	0.48	1	92	1	1500	1	1.3	1	7.3	1	350	1	2900	1
M-54	CH-CCR-M54-0421	4/16/2021	0.52	1	100	1	1700	1	1.4	1	7.6	1	420	1	3300	1
M-54	CH-CCR-M54-1021	10/24/2021	0.5	1	96	1	1500	1	1.4	1	7.7	1	400	1	2700	1
M-54	CH-CCR-M54-1121	11/19/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	370	1	2300	1
M-54	CH-CCR-M54-0522	5/13/2022	0.5	1	99	1	1400	1	1.4	1	7.6	1	360	1	3100	1
M-54	CH-CCR-M54-0822	8/31/2022	NA	NA	NA	NA	NA	NA	NA	NA	7.6	1	NA	NA	3100	1
M-54	CH-CCR-M54-1022	10/20/2022	0.5	1	93	1	1500	1	1.4	1	7.5	1	420	1	3100	1
M-54	CH-CCR-M54-0123	1/26/2023	NA	NA	NA	NA	1600	1	1.4	1	NA	NA	390	1	NA	NA
M-54	CH-CCR-M54-0423	4/13/2023	0.53	1	100	1	1500	1	1.4	1	7.8	1	370	1	3100	1
M-54	CH-CCR-M54-1023	11/21/2023	0.55	1	100	1	1400	1	1.3	1	7.6	1	350	1	3100	1
M-59	7803	12/3/2015	0.5	1	87	1	1300	1	1.3	1	7.53	1	340	1	2700	1
M-59	CH-M-59-0316	3/10/2016	0.48	1	85	1	1400	1	1.3	1	7.57	1	350	1	2700	1
M-59	CH-CCR-M59-516	5/20/2016	0.49	1	86	1	1400	1	1.4	1	NA	NA	340	1	2700	1
M-59	CH-CCR-M59-816	8/27/2016	0.5	1	89	1	1400	1	1.4	1	7.6	1	350	1	2700	1
M-59	CH-CCR-M59-916	9/22/2016	0.5	1	88	1	1300	1	1.4	1	7.8	1	340	1	2900	1
M-59	CH-CCR-M59-217	2/22/2017	0.48	1	86	1	1200	1	1.3	1	7.8	1	330	1	2800	1
M-59	CH-CCR-M59-41117	4/11/2017	0.49	1	90	1	1400	1	1.3	1	8.1	1	350	1	2800	1
M-59	CH-CCR-M59-42417	4/24/2017	0.52	1	89	1	1300	1	1.4	1	7.7	1	350	1	2800	1
M-59	CH-CCR-M59-51917	5/19/2017	0.5	1	93	1	1400	1	1.4	1	7.8	1	360	1	2700	1
M-59	CH-CCR-M59-52517	5/25/2017	0.5	1	88	1	1300	1	1.4	1	7.6	1	350	1	2700	1
M-59	CH-CCR-M59-62917	6/29/2017	0.49	1	84	1	1400	1	1.5	1	7.8	1	370	1	2500	1
M-59	CH-CCR-M59-72917	7/29/2017	0.53	1	92	1	1300	1	1.5	1	7.6	1	340	1	2800	1
M-59	CH-CCR-M59-90517	9/5/2017	0.51	1	90	1	1300	1	1.4	1	7.7	1	360	1	2700	1
M-59	CH-CCR-M59-120717	12/7/2017	0.49	1	86	1	1400	1	1.4	1	7.7	1	350	1	2700	1
M-59	CH-CCR-M-59-52518	5/25/2018	0.49	1	85	1	1400	1	1.4	1	7.5	1	350	1	2700	1
M-59	CH-CCR-M-59-102618	10/26/2018	0.48	1	88	1	1400	1	1.4	1	7.6	1	360	1	2500	1
M-59	CH-CCR-M59-40919	4/9/2019	0.5	1	86	1	1200	1	1.4	1	7.9	1	330	1	2700	1
M-59	CH-CCR-M59-102319	10/23/2019	0.48	1	84	1	1400	1	1.3	1	7.5	1	350	1	2800	1
M-59	CH-CCR-M59-0520	5/7/2020	0.5	1	89	1	1200	1	1.8	1	7.7	1	350	1	2800	1

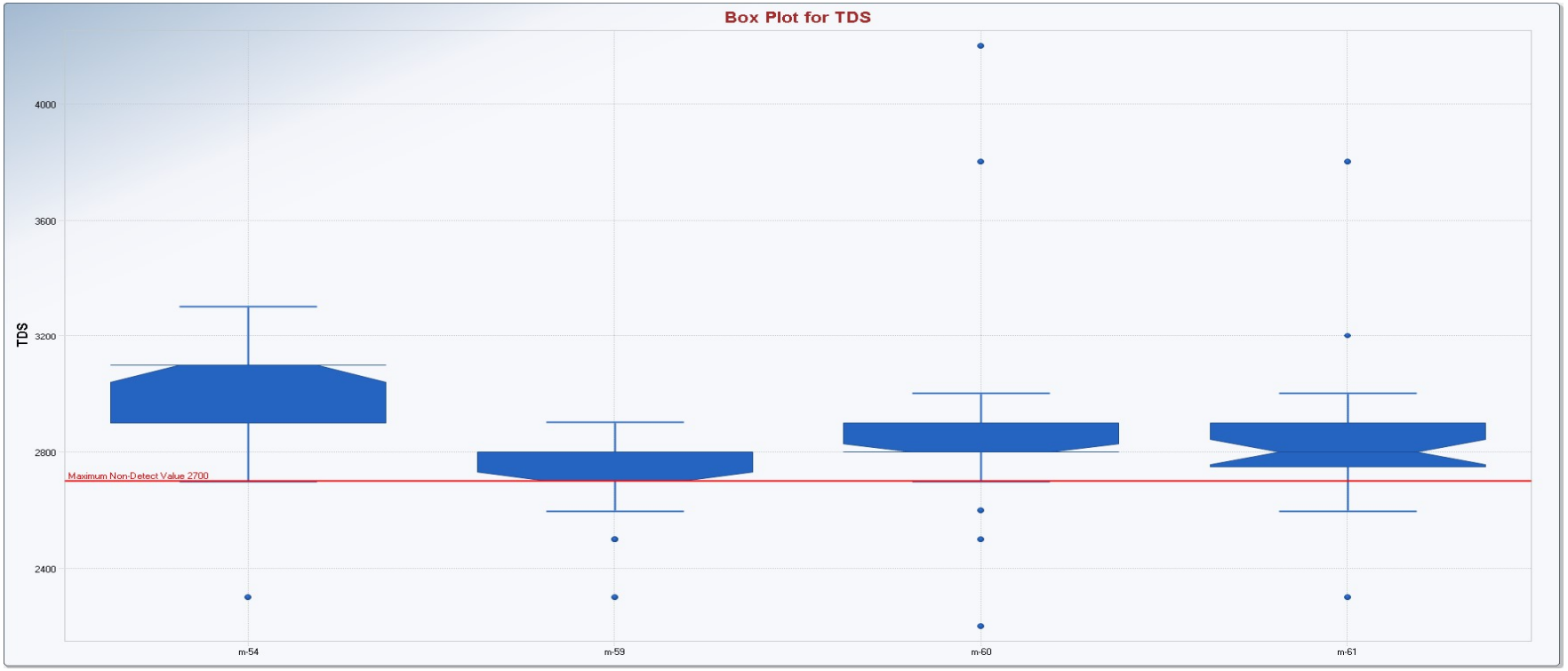
Well Name	Field Sample ID	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	pH	D_pH	Sulfate	D_Sulfate	TDS	D_TDS
M-59	CH-CCR-M59-1020	10/21/2020	0.48	1	85	1	1300	1	1.4	1	7.5	1	340	1	2700	1
M-59	CH-CCR-M59-0421	4/16/2021	0.49	1	87	1	1200	1	1.4	1	7.6	1	340	1	2800	1
M-59	CH-CCR-M59-1021	10/24/2021	0.49	1	84	1	1300	1	1.4	1	7.7	1	400	1	2300	1
M-59	CH-CCR-M59-1121	11/19/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	360	1	2600	1
M-59	CH-CCR-M59-0522	5/13/2022	0.5	1	89	1	1200	1	1.4	1	7.9	1	350	1	2900	1
M-59	CH-CCR-M59-0822	8/30/2022	NA	NA	NA	NA	NA	NA	NA	NA	7.6	1	NA	NA	NA	NA
M-59	CH-CCR-M59-1022	10/19/2022	0.48	1	79	1	1200	1	1.4	1	7.6	1	350	1	2700	1
M-59	CH-CCR-M59-0423	4/12/2023	0.51	1	93	1	1300	1	1.4	1	7.8	1	360	1	2800	1
M-59	CH-CCR-M59-1023	11/21/2023	0.53	1	90	1	740	1	1.3	1	7.7	1	320	1	2800	1
M-60	7801	12/3/2015	0.54	1	88	1	1400	1	1.3	1	7.56	1	350	1	2800	1
M-60	CH-M-60A-0316	3/9/2016	0.5	1	86	1	1400	1	1.4	1	7.83	1	350	1	2800	1
M-60	CH-CCR-M60-516	5/20/2016	0.5	1	89	1	1400	1	1.5	1	NA	NA	350	1	2800	1
M-60	CH-CCR-M60-816	8/27/2016	0.52	1	90	1	1400	1	1.5	1	7.5	1	360	1	2800	1
M-60	CH-CCR-M60-916	9/22/2016	0.51	1	88	1	1300	1	1.5	1	7.8	1	350	1	3000	1
M-60	CH-CCR-M60-217	2/22/2017	0.52	1	91	1	1300	1	1.4	1	7.8	1	340	1	2800	1
M-60	CH-CCR-M60-41117	4/11/2017	0.48	1	90	1	1400	1	1.4	1	8	1	360	1	2900	1
M-60	CH-CCR-M60-42417	4/24/2017	0.53	1	86	1	1400	1	1.4	1	7.8	1	350	1	2700	1
M-60	CH-CCR-M60-51917	5/19/2017	0.53	1	92	1	1400	1	1.4	1	7.7	1	360	1	2800	1
M-60	CH-CCR-M60-52517	5/25/2017	0.51	1	86	1	1300	1	1.4	1	7.7	1	350	1	2800	1
M-60	CH-CCR-M60-62917	6/29/2017	0.51	1	84	1	1500	1	1.5	1	7.7	1	440	1	2500	1
M-60	CH-CCR-M60-72917	7/29/2017	0.53	1	89	1	1400	1	1.5	1	7.6	1	370	1	2800	1
M-60	CH-CCR-M60-90517	9/5/2017	0.53	1	90	1	1400	1	1.5	1	7.6	1	360	1	2800	1
M-60	CH-CCR-M60-120717	12/7/2017	0.5	1	85	1	1500	1	1.4	1	7.6	1	360	1	2900	1
M-60	CH-CCR-M-60-52518	5/25/2018	0.5	1	83	1	1400	1	1.5	1	7.5	1	350	1	2800	1
M-60	CH-CCR-M-60-102618	10/26/2018	0.49	1	88	1	1400	1	1.4	1	7.7	1	350	1	2600	1
M-60	CH-CCR-M60-40919	4/9/2019	0.51	1	84	1	1300	1	1.4	1	7.7	1	350	1	2800	1
M-60	CH-CCR-M60-102219	10/22/2019	0.5	1	85	1	1400	1	1.4	1	7.6	1	360	1	2800	1
M-60	CH-CCR-M60-0520	5/7/2020	0.5	1	88	1	1200	1	1.7	1	7.7	1	350	1	2900	1
M-60	CH-CCR-M60-1020	10/21/2020	0.48	1	82	1	1400	1	1.4	1	7.5	1	340	1	2900	1
M-60	CH-CCR-M60-0421	4/16/2021	0.49	1	85	1	1300	1	1.5	1	7.8	1	340	1	4200	1
M-60	CH-CCR-M60-0721	7/7/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2700	NA
M-60	CH-CCR-M60-1021	10/24/2021	0.49	1	85	1	1300	1	1.5	1	7.6	1	450	1	2900	1
M-60	CH-CCR-M60-1121	11/19/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	370	1	2200	1
M-60	CH-CCR-M60-0522	5/13/2022	0.5	1	87	1	1400	1	1.4	1	7.8	1	360	1	3800	1
M-60	CH-CCR-M60-0822	8/31/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2900	1
M-60	CH-CCR-M60-1022	10/20/2022	0.48	1	80	1	1300	1	1.5	1	7.5	1	400	1	2700	1
M-60	CH-CCR-M60-0123	1/26/2023	NA	NA	NA	A	1400	1	1.5	1	NA	NA	380	1	NA	NA
M-60	CH-CCR-M60-0523	5/10/2023	0.51	1	79	1	1400	1	1.4	1	7.7	1	370	1	2800	1
M-60	CH-CCR-M60-1023	11/20/2023	0.53	1	88	1	1300	1	1.4	1	7.6	1	350	1	2900	1
M-61	7802	12/3/2015	0.51	1	90	1	1400	1	1.3	1	7.22	1	350	1	2800	1
M-61	CH-M-61-0316	3/10/2016	0.49	1	90	1	1400	1	1.4	1	7.59	1	340	1	2800	1
M-61	CH-CCR-M61-516	5/20/2016	0.49	1	89	1	1400	1	1.4	1	NA	NA	350	1	2800	1
M-61	CH-CCR-M61-816	8/27/2016	0.5	1	90	1	1400	1	1.5	1	7.5	1	360	1	2900	1
M-61	CH-CCR-M61-916	9/22/2016	0.5	1	90	1	1300	1	1.5	1	7.9	1	350	1	3000	1
M-61	CH-CCR-M61-217	2/22/2017	0.5	1	92	1	1100	1	1.4	1	7.8	1	340	1	2700	1
M-61	CH-CCR-W61-217	2/22/2017	NA	NA	NA	NA	NA	NA	1.5	1	NA	NA	NA	NA	NA	NA
M-61	CH-CCR-M61-41117	4/11/2017	0.5	1	93	1	1700	1	1.3	1	8	1	420	1	3000	1
M-61	CH-CCR-M61-42417	4/24/2017	0.52	1	88	1	1400	1	1.4	1	7.7	1	360	1	2700	1

Well Name	Field Sample ID	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	pH	D_pH	Sulfate	D_Sulfate	TDS	D_TDS
M-61	CH-CCR-M61-51917	5/19/2017	0.5	1	92	1	1400	1	1.3	1	7.8	1	370	1	2800	1
M-61	CH-CCR-M61-52517	5/25/2017	0.51	1	92	1	1400	1	1.4	1	7.7	1	370	1	2800	1
M-61	CH-CCR-M61-62917	6/29/2017	0.5	1	86	1	1500	1	1.5	1	7.8	1	380	1	2700	1
M-61	CH-CCR-M61-72917	7/29/2017	0.52	1	94	1	1300	1	1.5	1	7.6	1	360	1	2900	1
M-61	CH-CCR-M61-90517	9/5/2017	0.5	1	91	1	1400	1	1.5	1	7.6	1	360	1	2800	1
M-61	CH-CCR-M61-120717	12/7/2017	0.49	1	88	1	1500	1	1.4	1	7.6	1	360	1	2900	1
M-61	CH-CCR-M-61-52518	5/25/2018	0.48	1	87	1	1400	1	1.5	1	7.5	1	390	1	2800	1
M-61	CH-CCR-M-61-102618	10/26/2018	0.48	1	91	1	1400	1	1.4	1	7.5	1	360	1	2600	1
M-61	CH-CCR-M61-40919	4/9/2019	0.5	1	88	1	1300	1	1.4	1	7.7	1	340	1	2800	1
M-61	CH-CCR-M61-102219	10/22/2019	0.48	1	87	1	1400	1	1.4	1	7.8	1	350	1	2700	1
M-61	CH-CCR-M61-0520	5/7/2020	0.51	1	93	1	1300	1	1.6	1	7.7	1	350	1	3000	1
M-61	CH-CCR-M61-1020	10/21/2020	0.48	1	88	1	1400	1	1.4	1	7.5	1	350	1	2700	1
M-61	CH-CCR-M61-0421	4/16/2021	0.49	1	91	1	1300	1	1.5	1	7.8	1	340	1	2900	1
M-61	CH-CCR-M61-1021	10/24/2021	0.48	1	88	1	1400	1	1.4	1	7.6	1	400	1	3200	1
M-61	CH-CCR-M61-1121	11/19/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	370	1	2300	1
M-61	CH-CCR-M61-0522	5/13/2022	0.49	1	90	1	1200	1	1.4	1	7.6	1	360	1	3800	1
M-61	CH-CCR-M61-0822	8/31/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2900	1
M-61	CH-CCR-M61-1022	10/19/2022	0.49	1	86	1	1300	1	1.5	1	7.7	1	360	1	2800	1
M-61	CH-CCR-M61-0423	4/12/2023	0.51	1	97	1	1400	1	1.4	1	7.8	1	350	1	2900	1
M-61	CH-CCR-M61-1023	11/20/2023	0.53	1	93	1	1300	1	1.3	1	7.7	1	350	1	2900	1

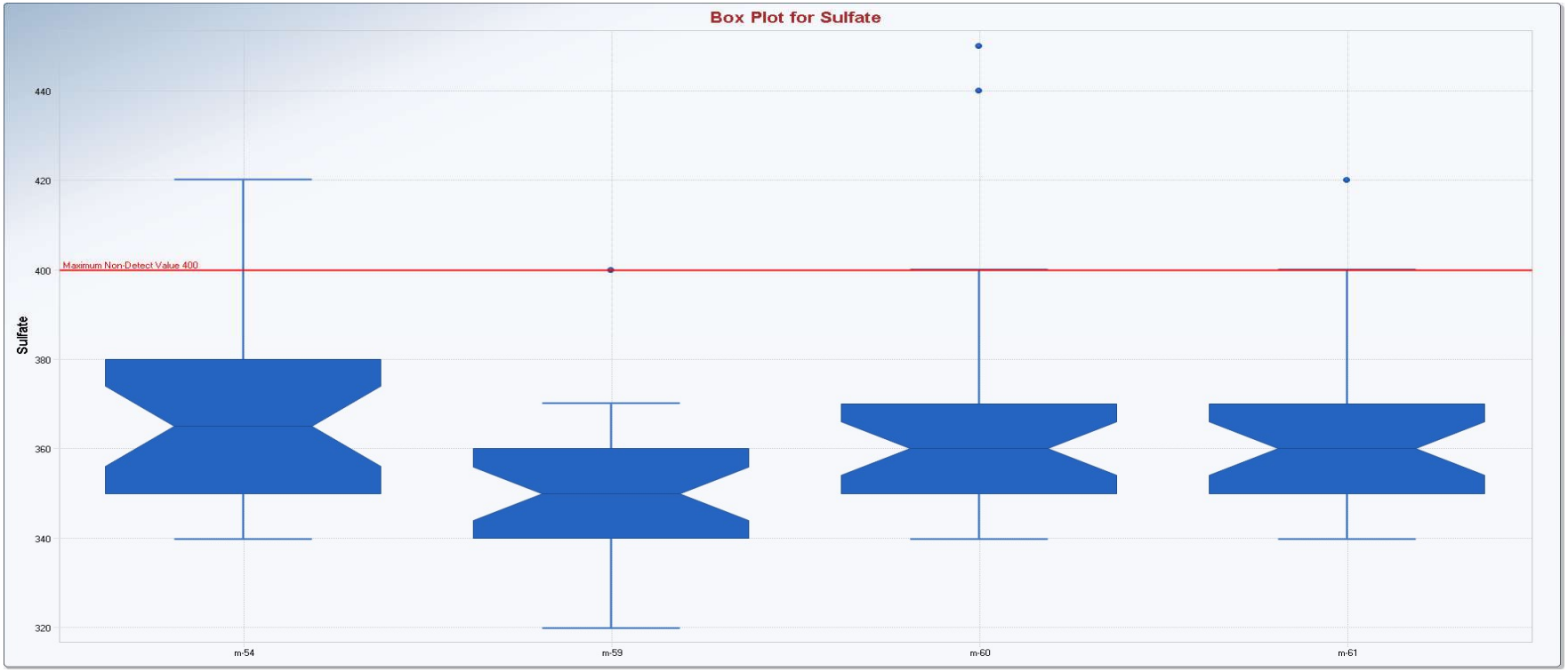
APPENDIX B

PROUCL EDA OUTPUT FILES

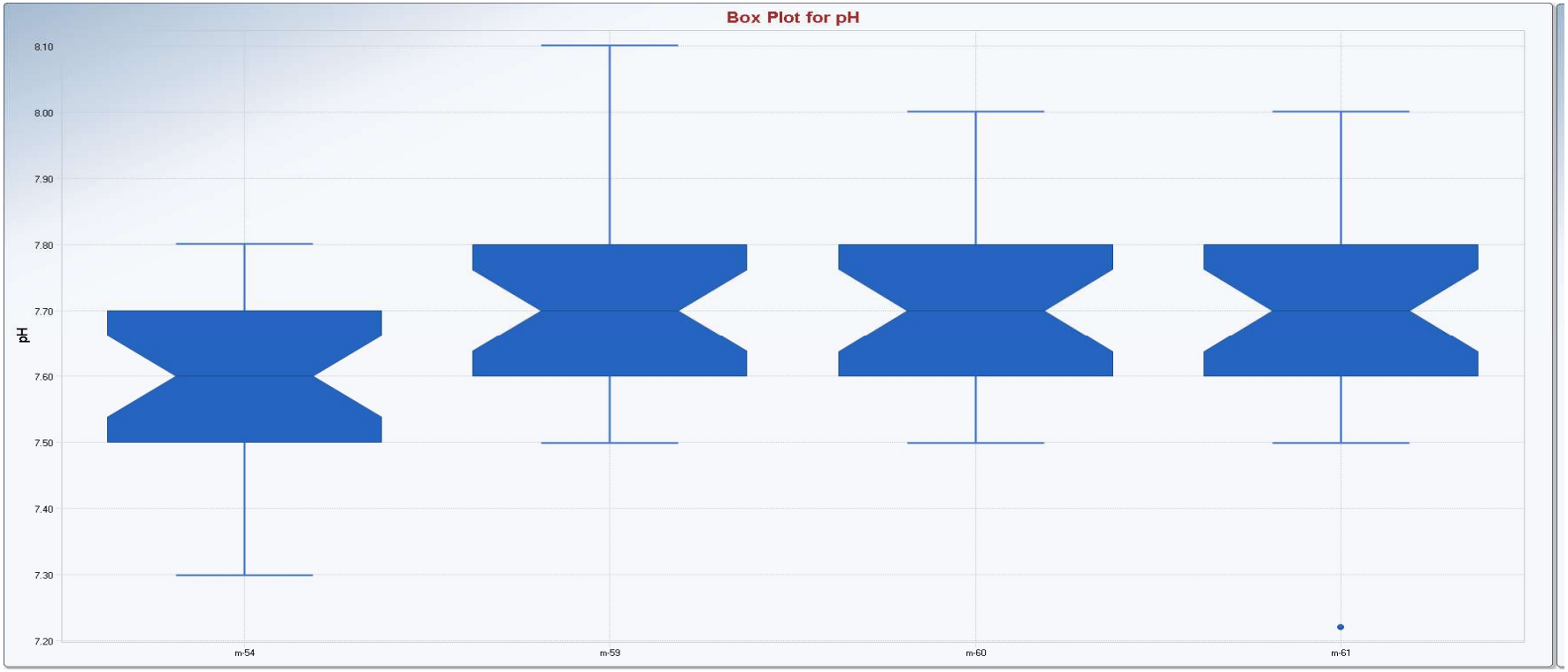
Appendix B
Box and Whisker Plots



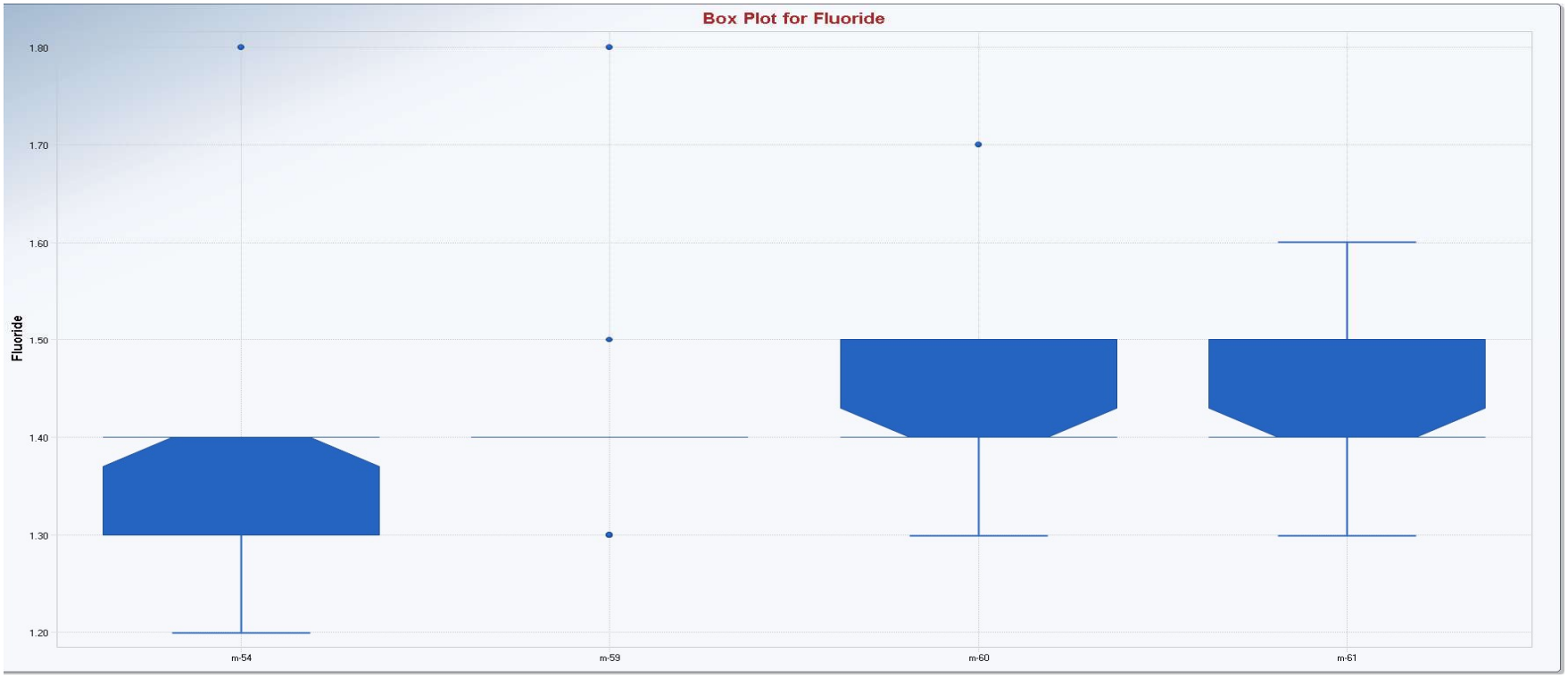
Appendix B
Box and Whisker Plots



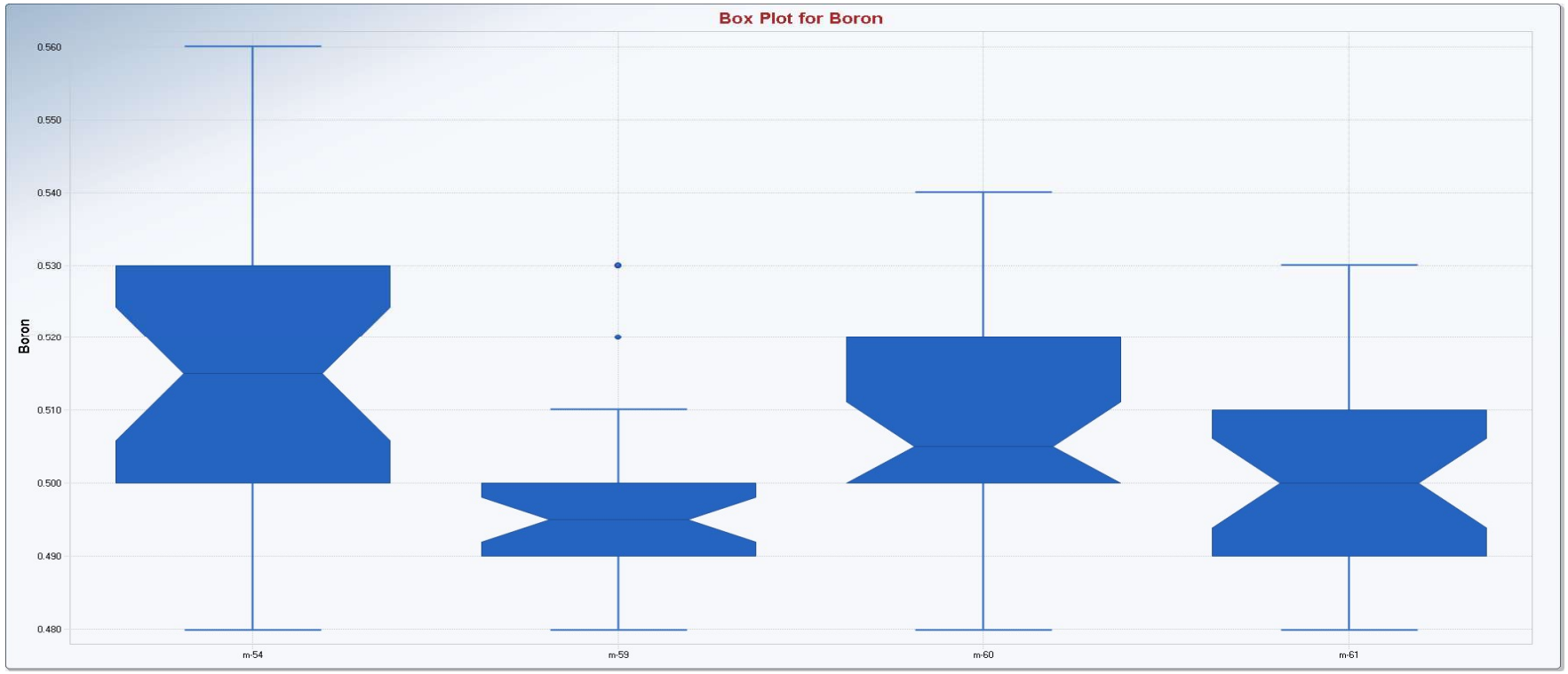
Appendix B
Box and Whisker Plots



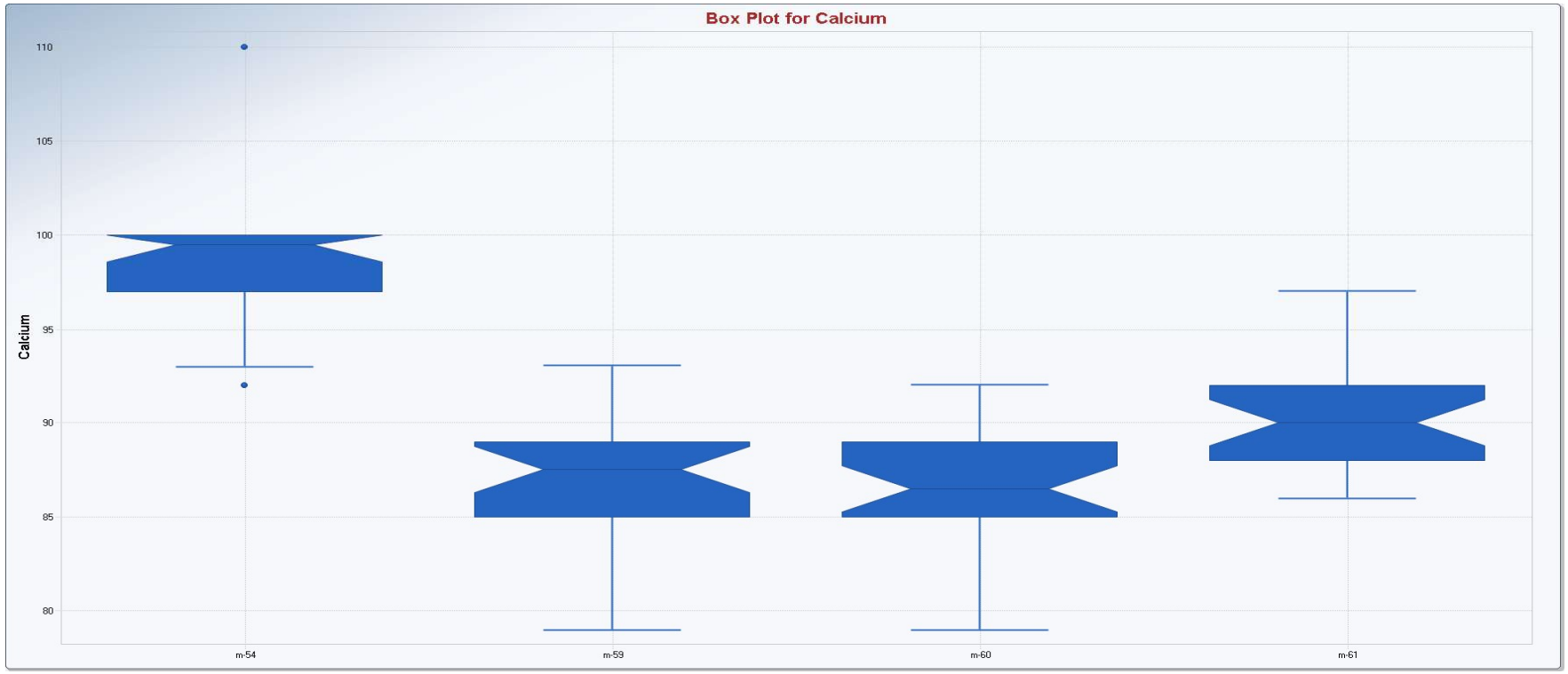
Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



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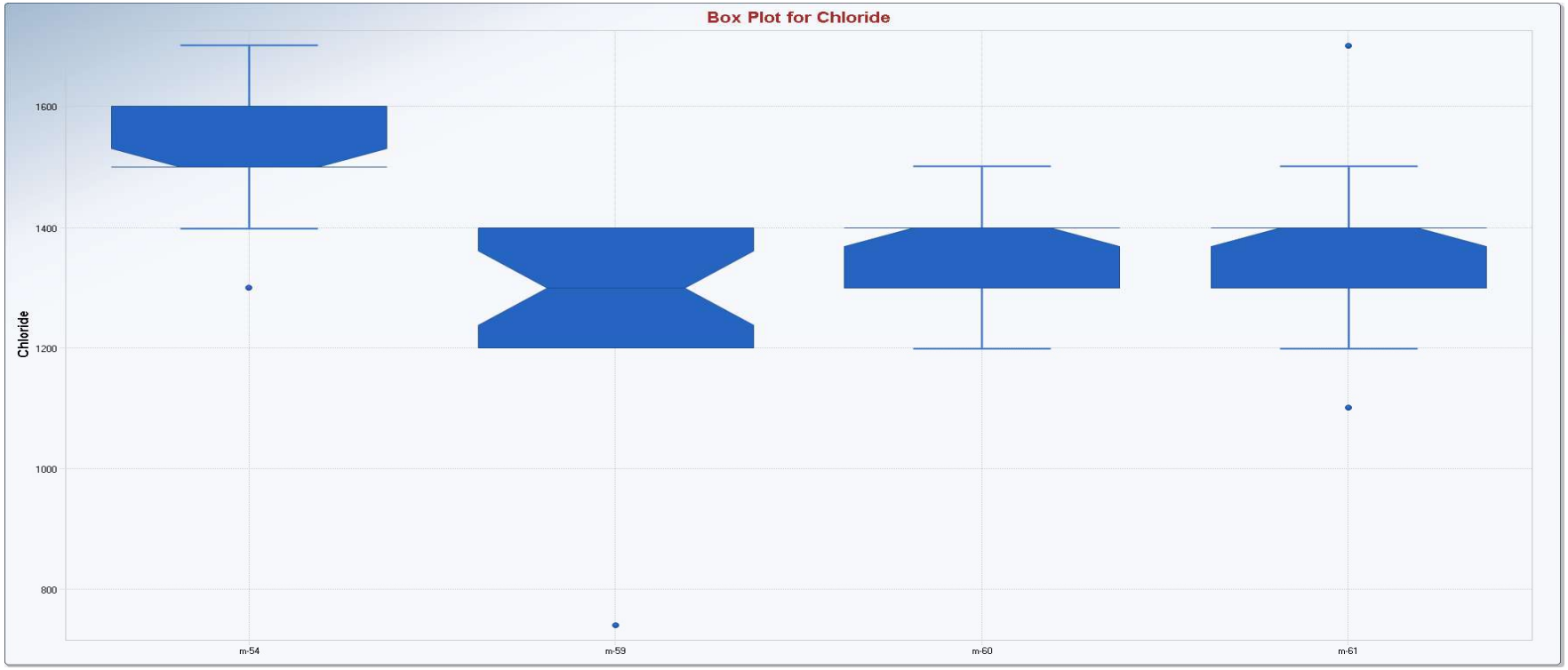
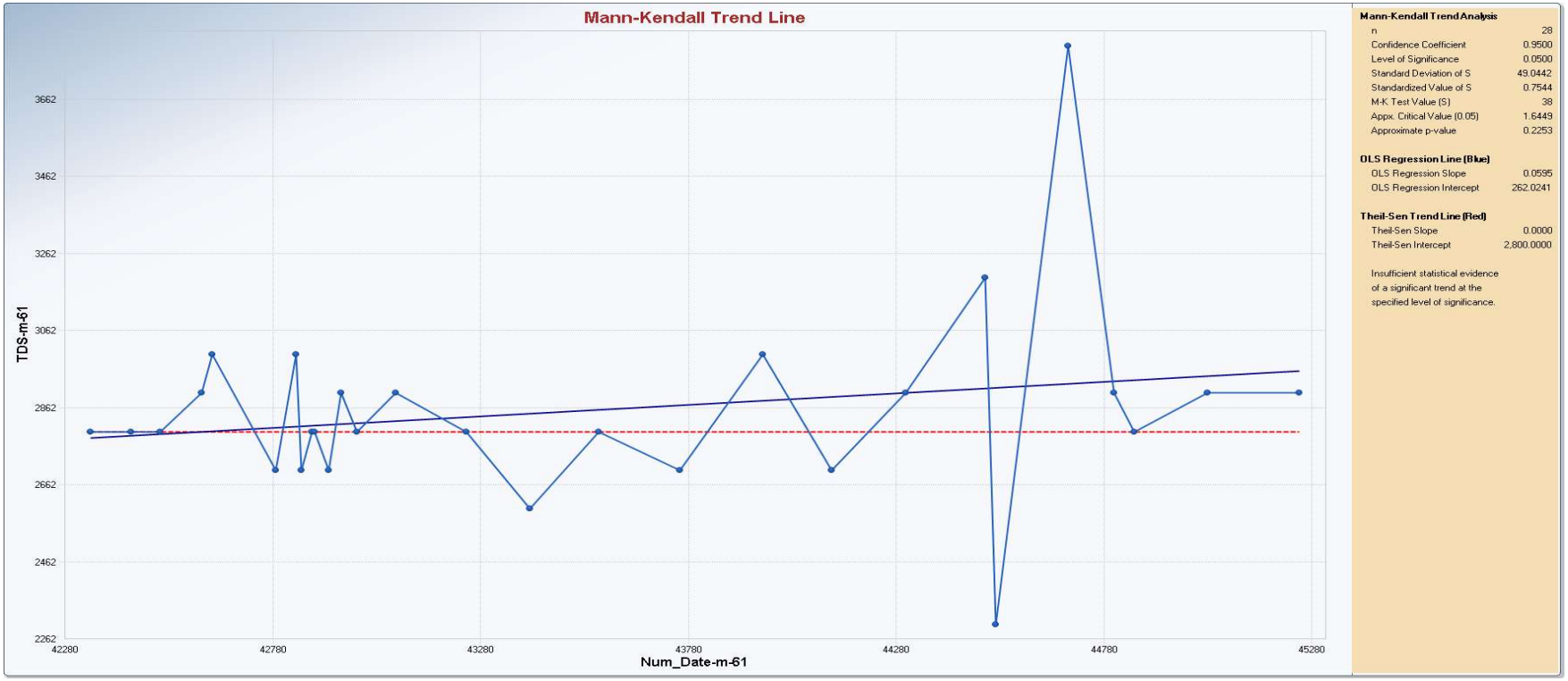
Box and Whisker Plots



Appendix B
Time Series Plots



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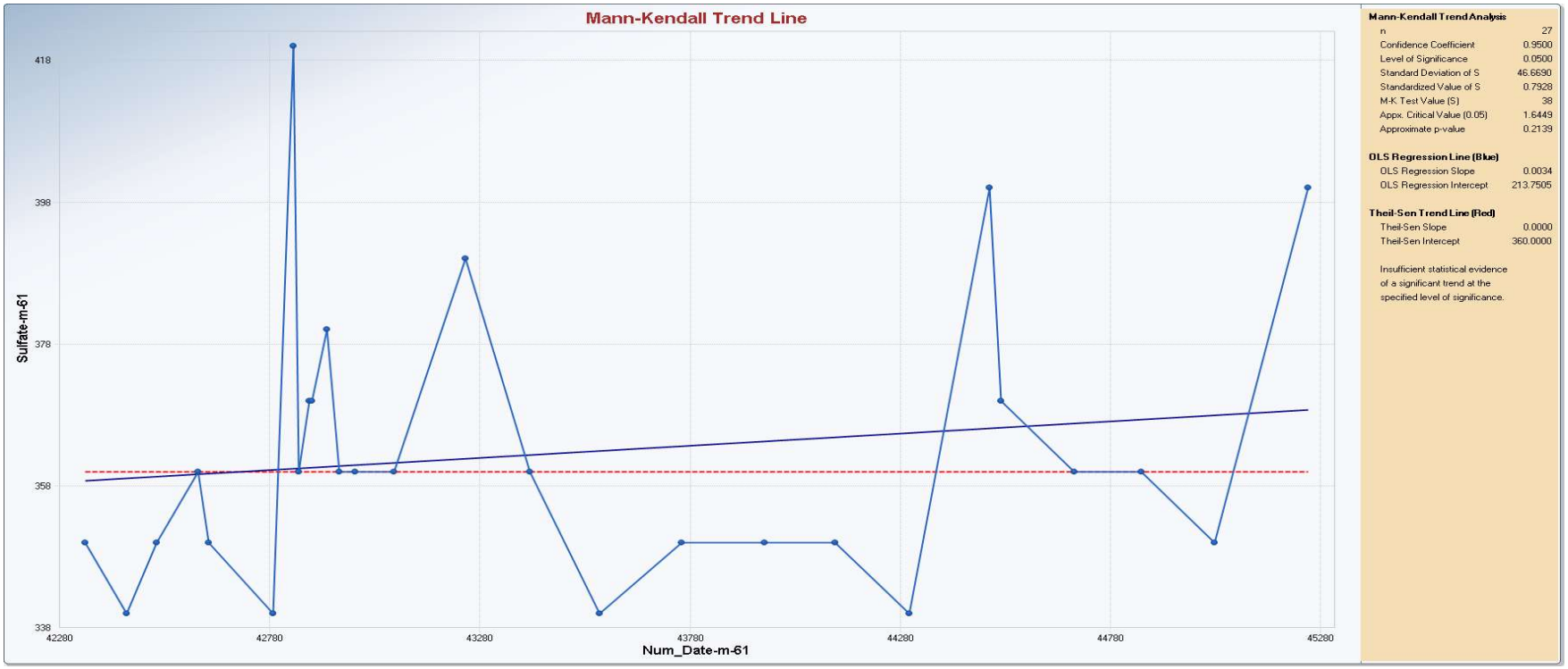

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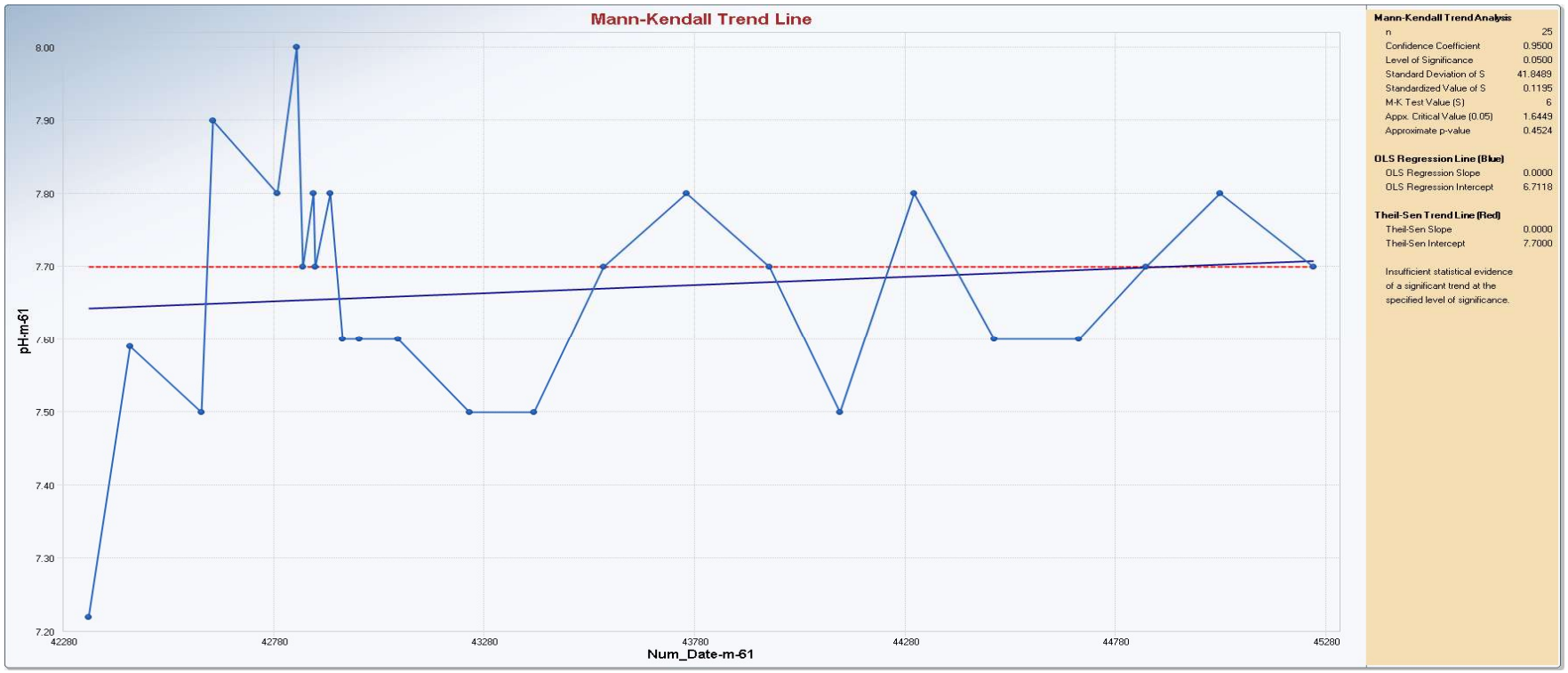
Time Series Plots



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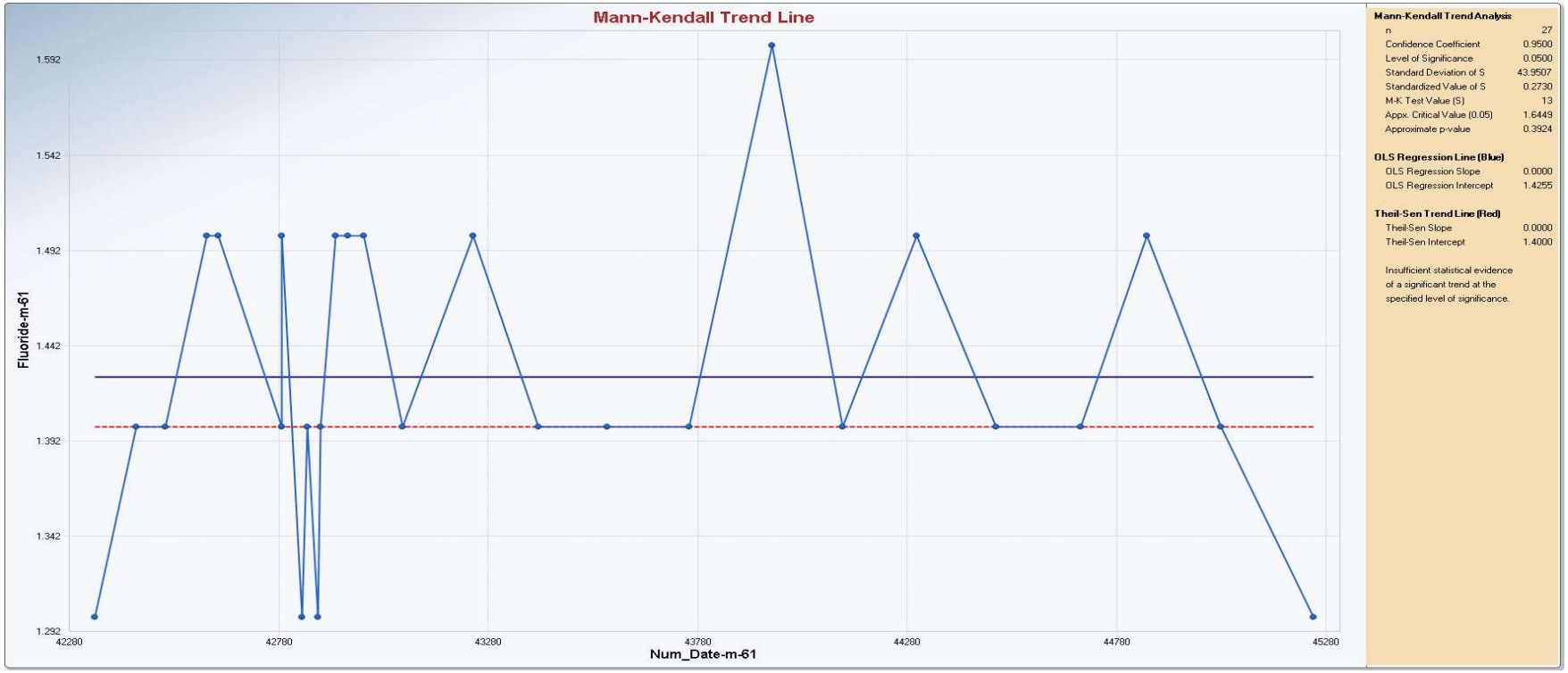
Time Series Plots



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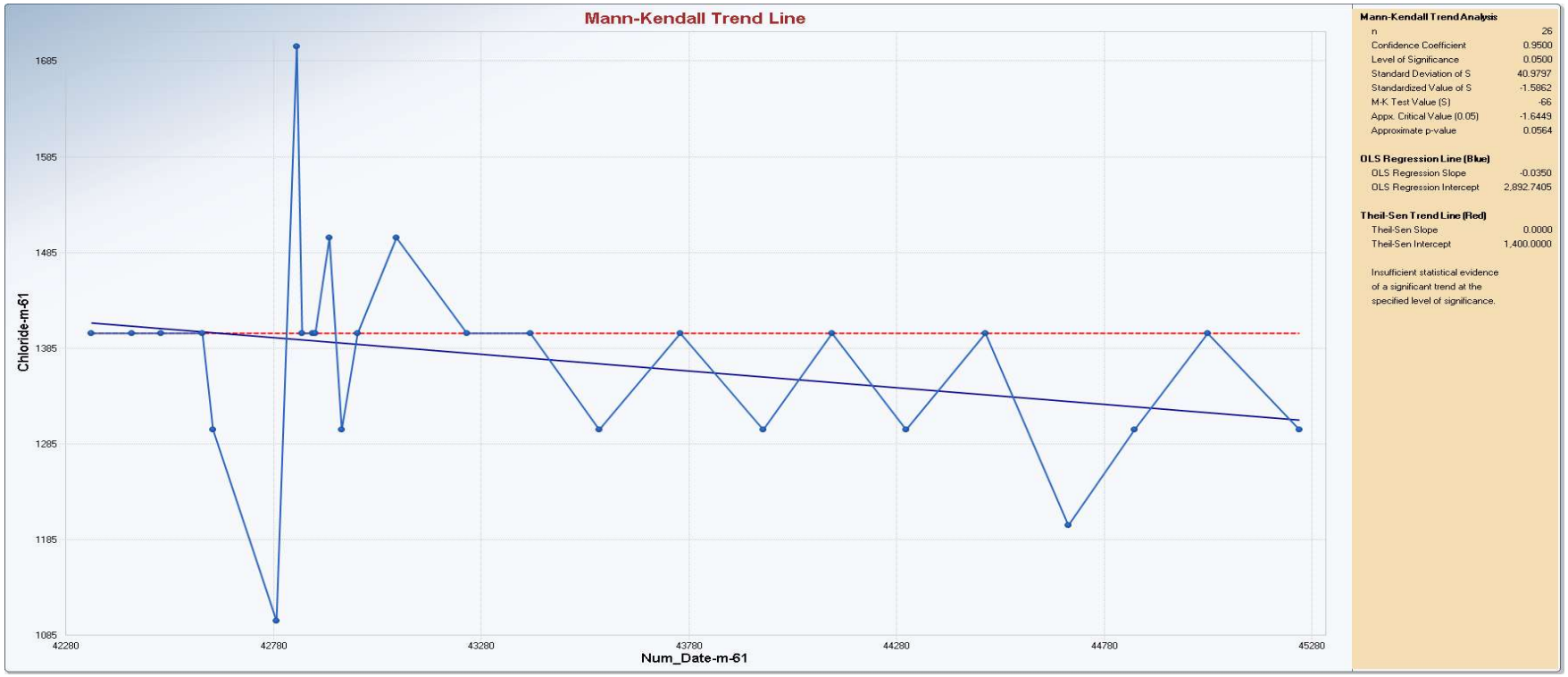

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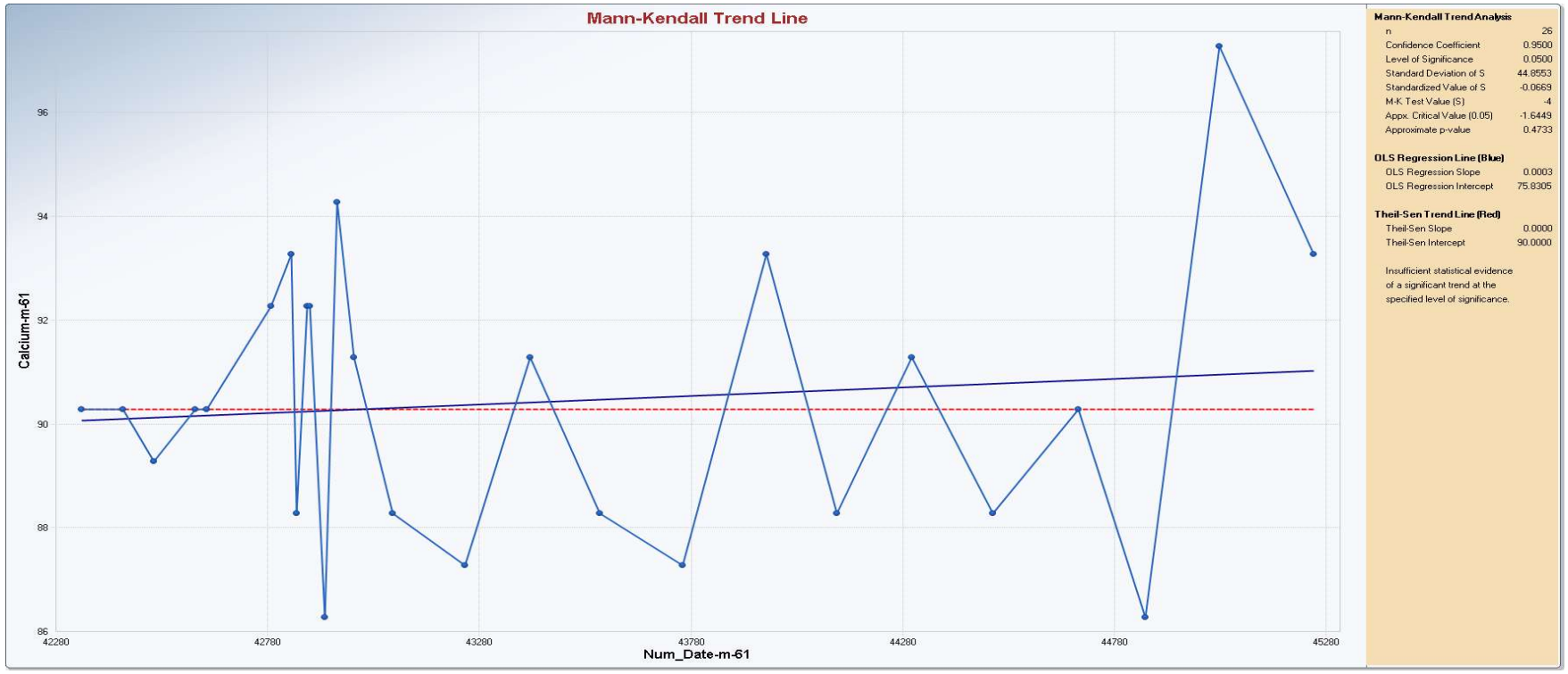

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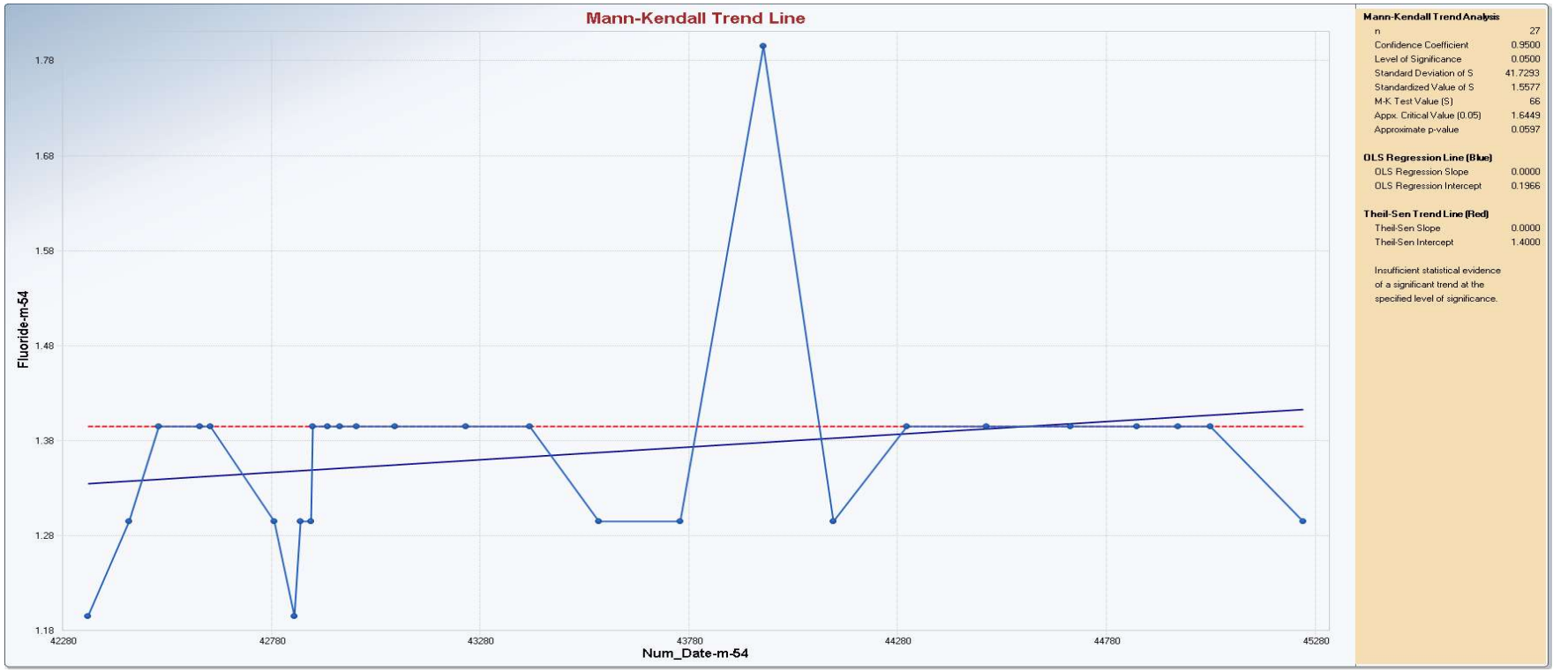
Time Series Plots



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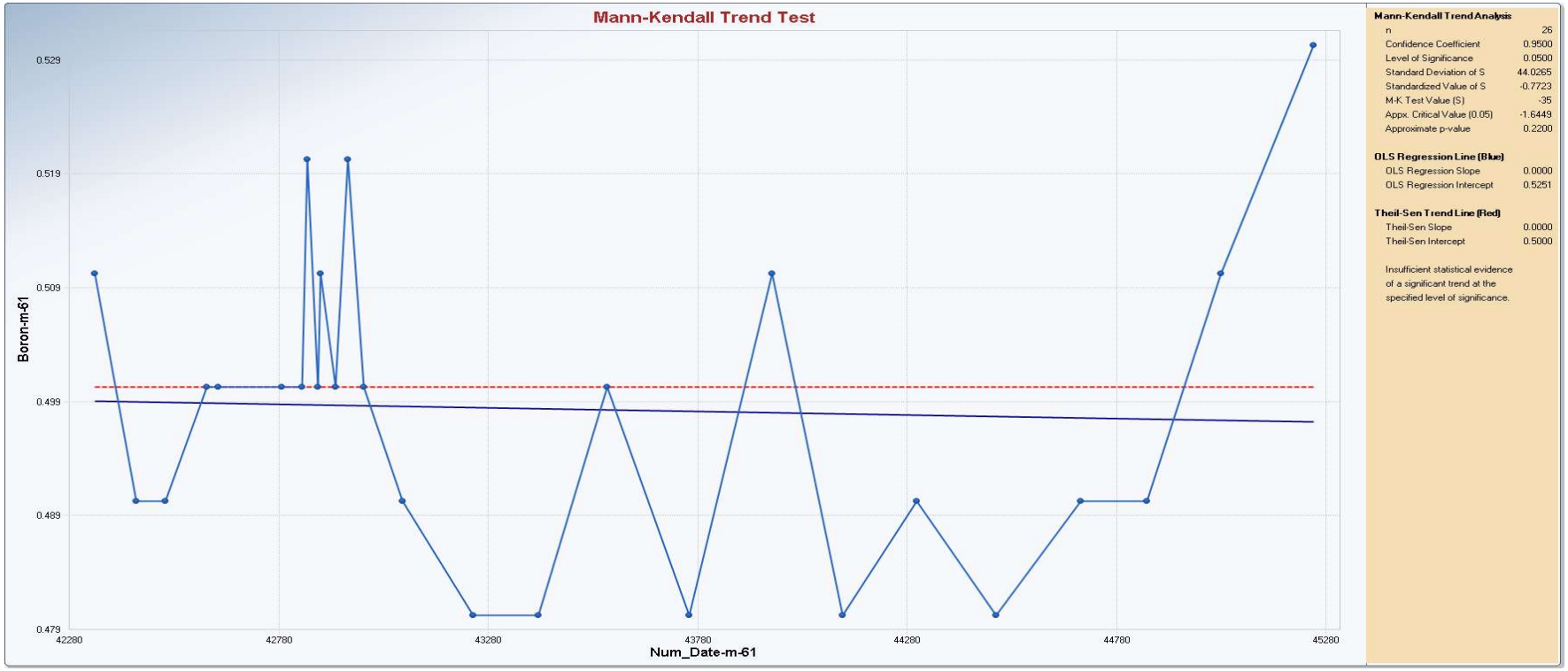

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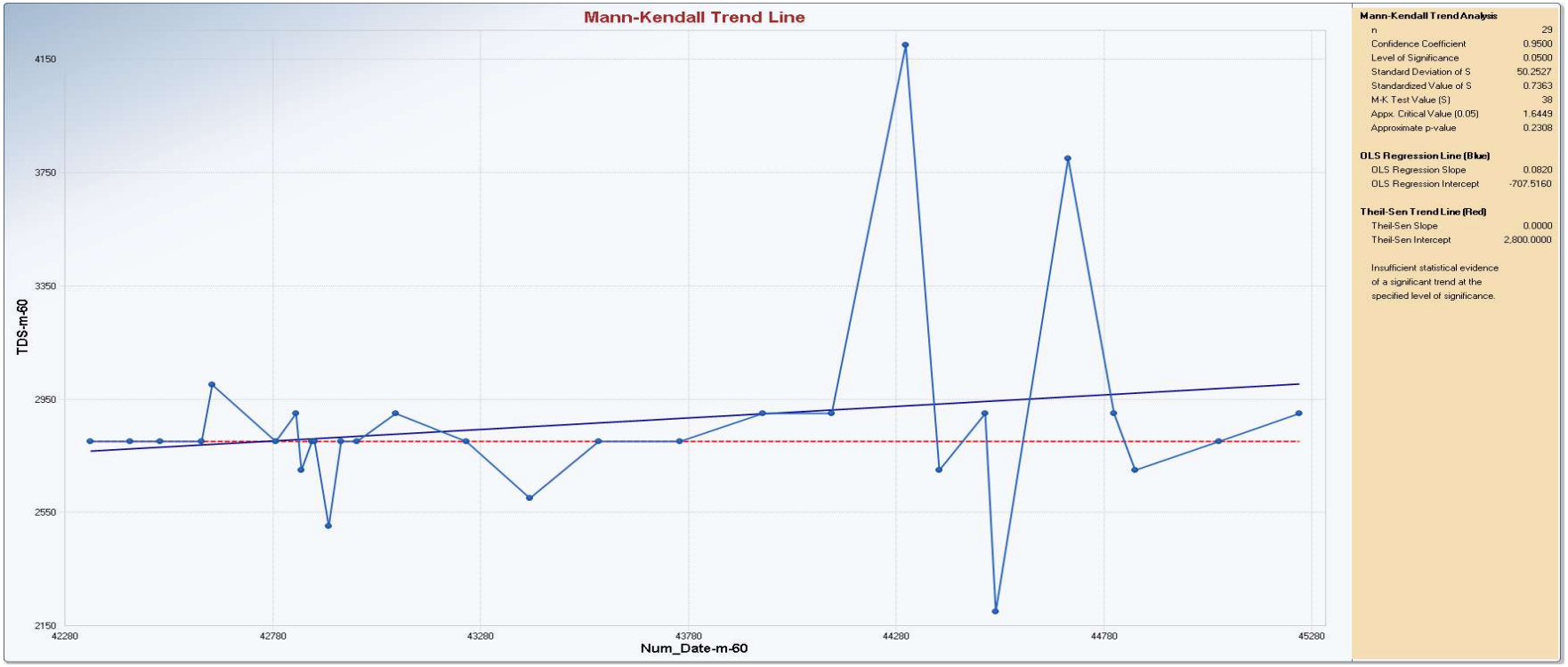

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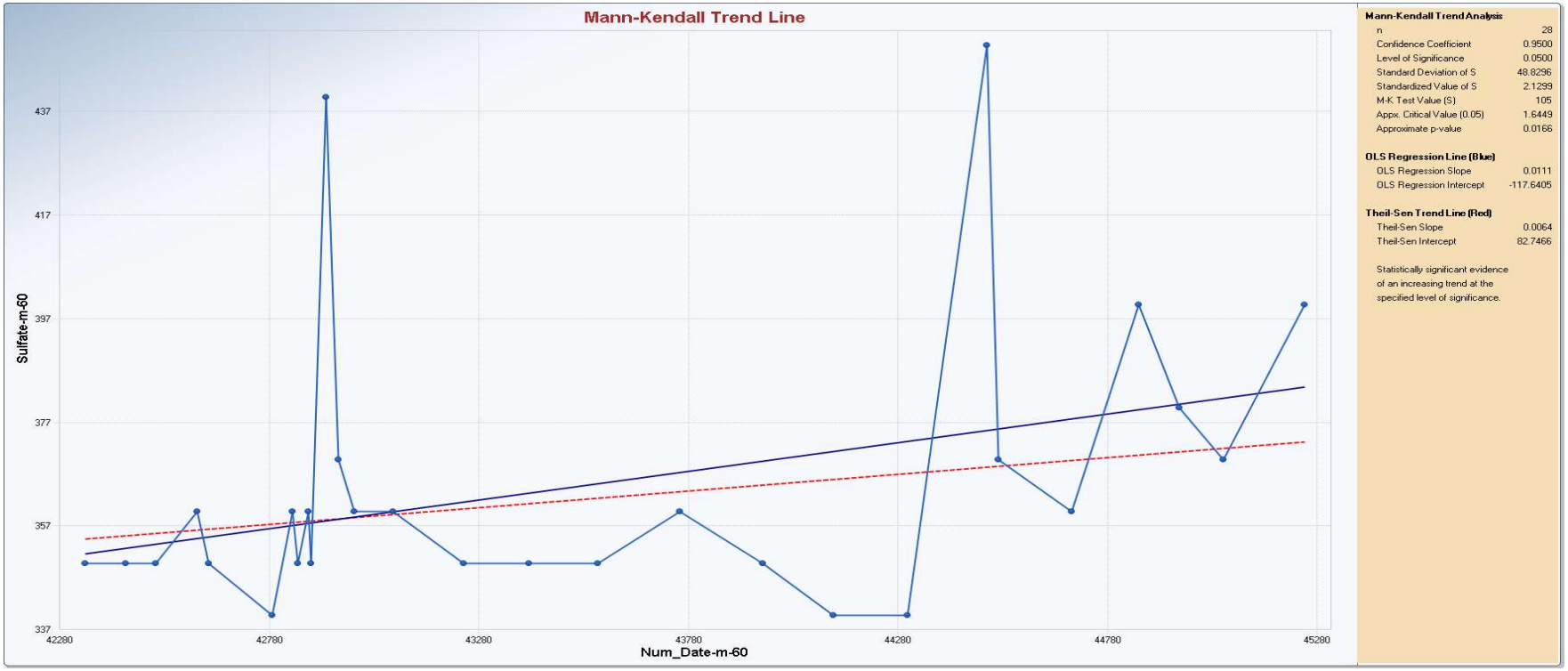

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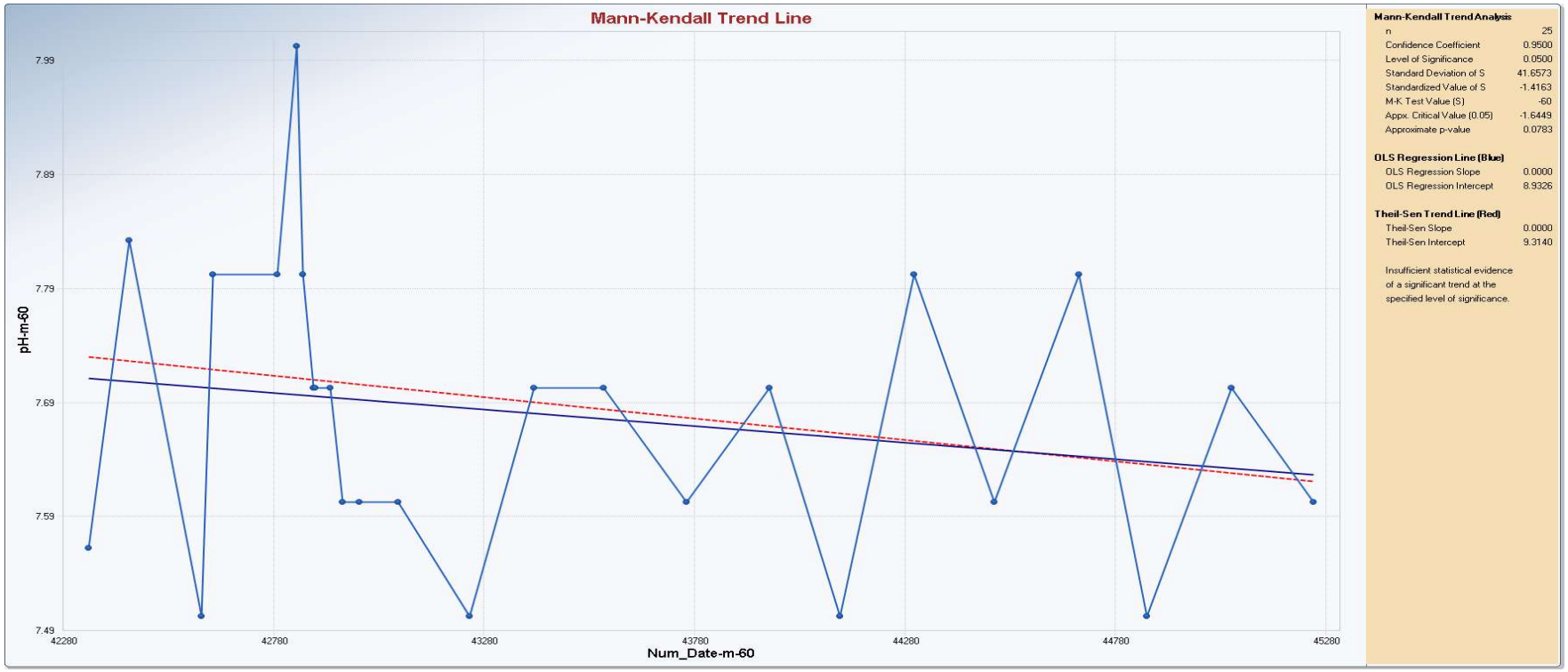

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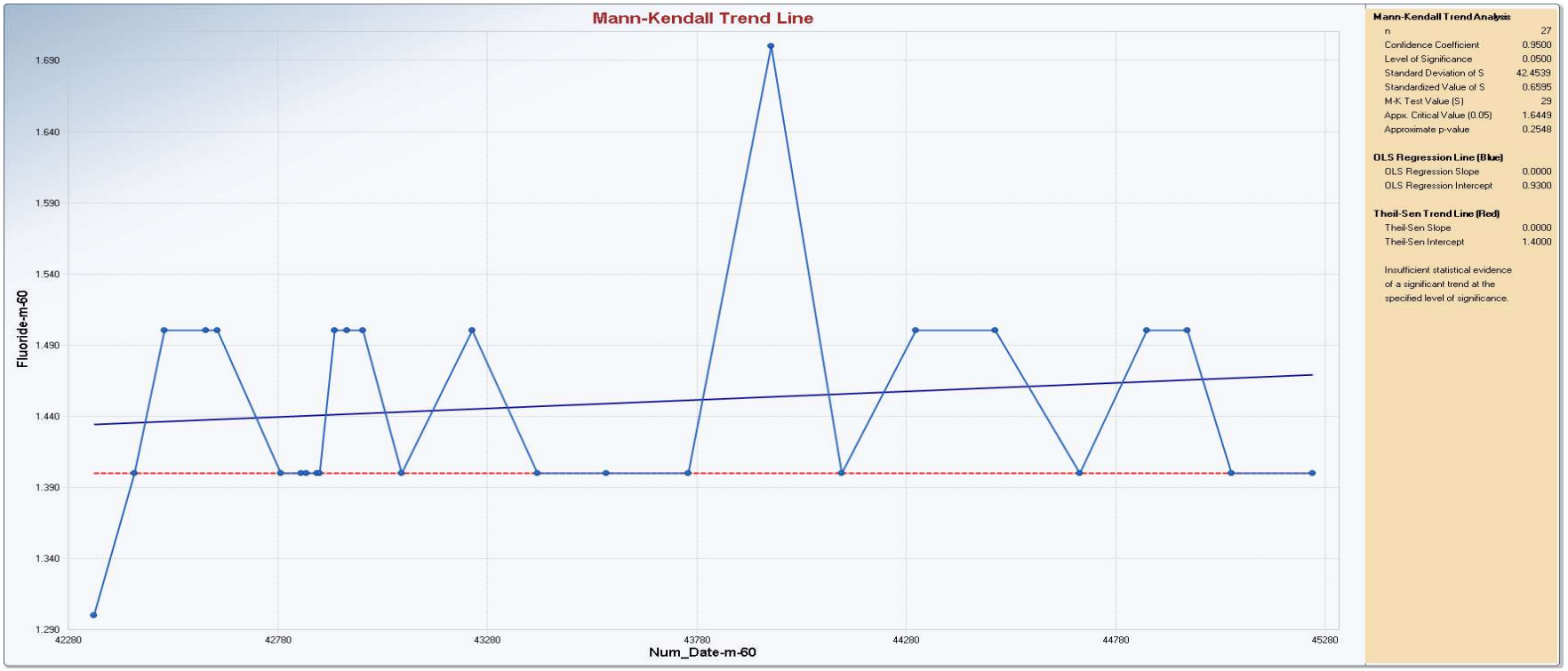

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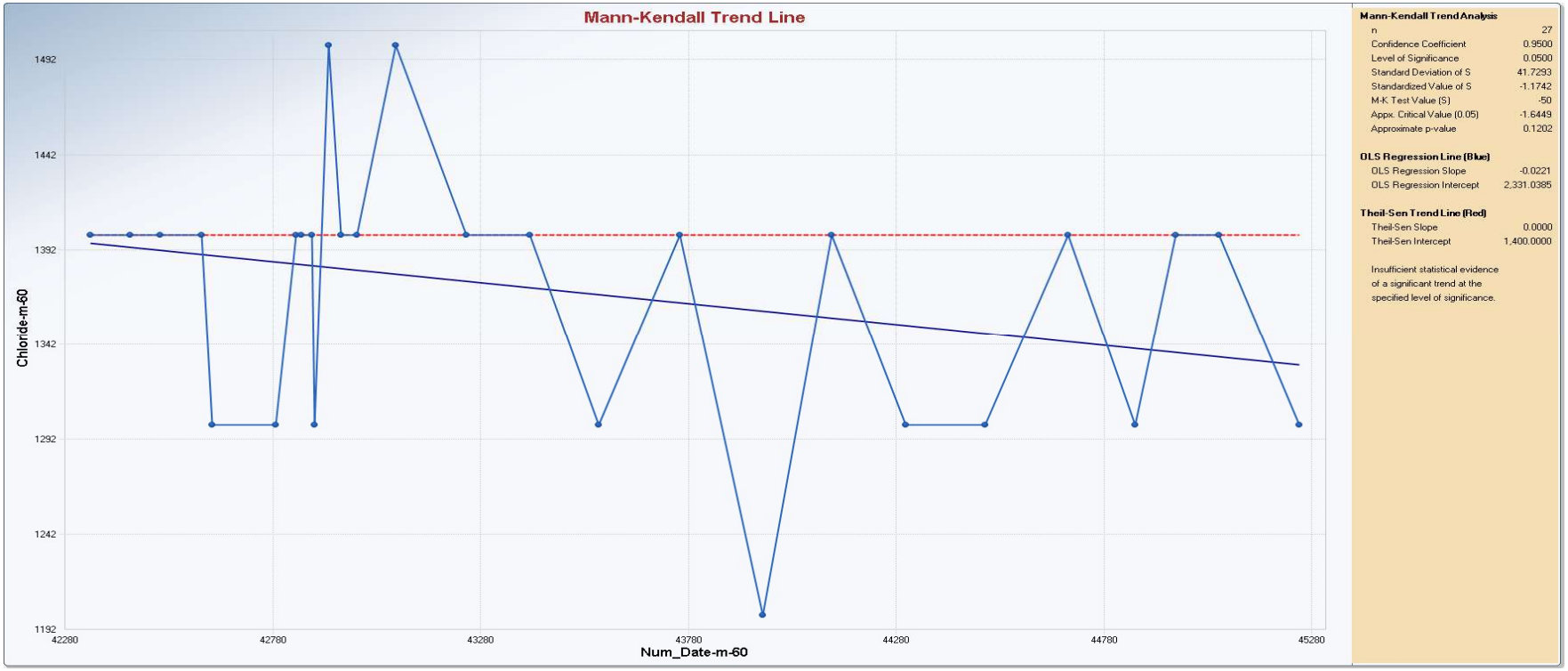

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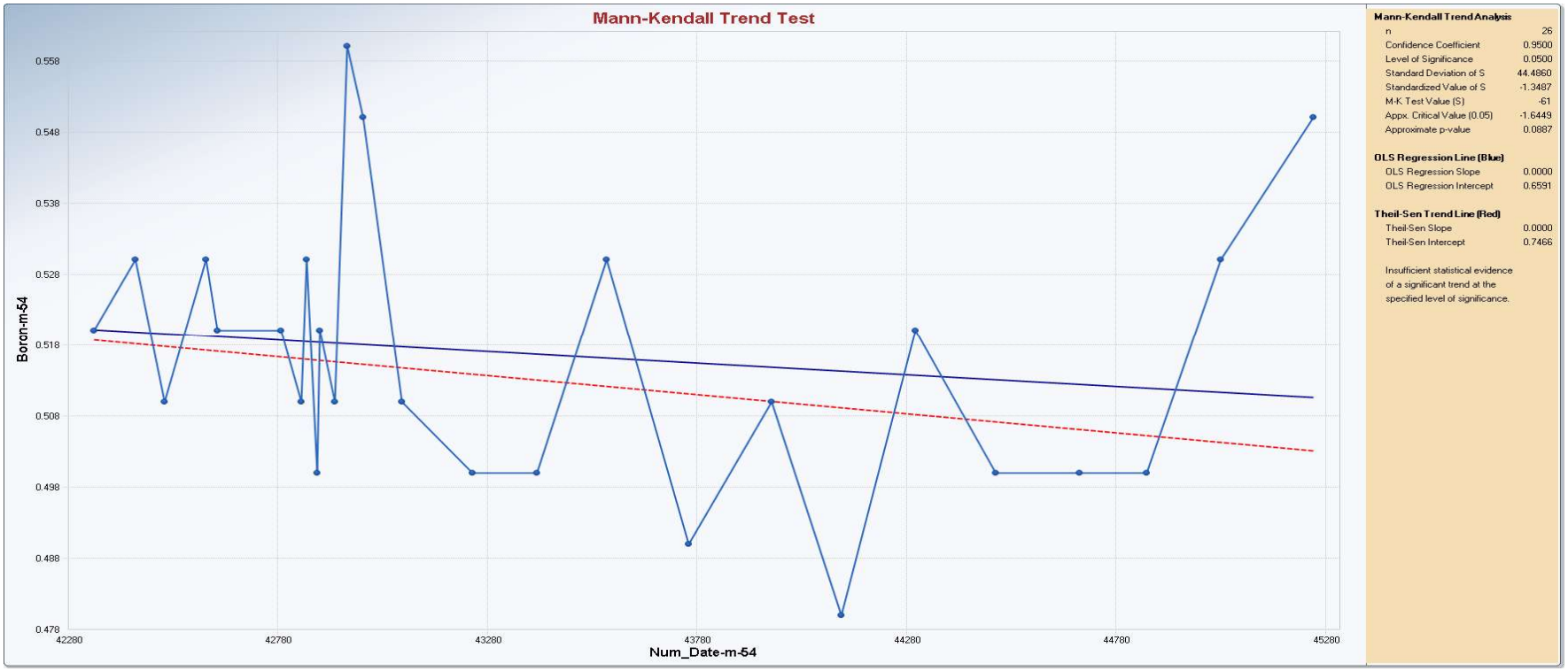

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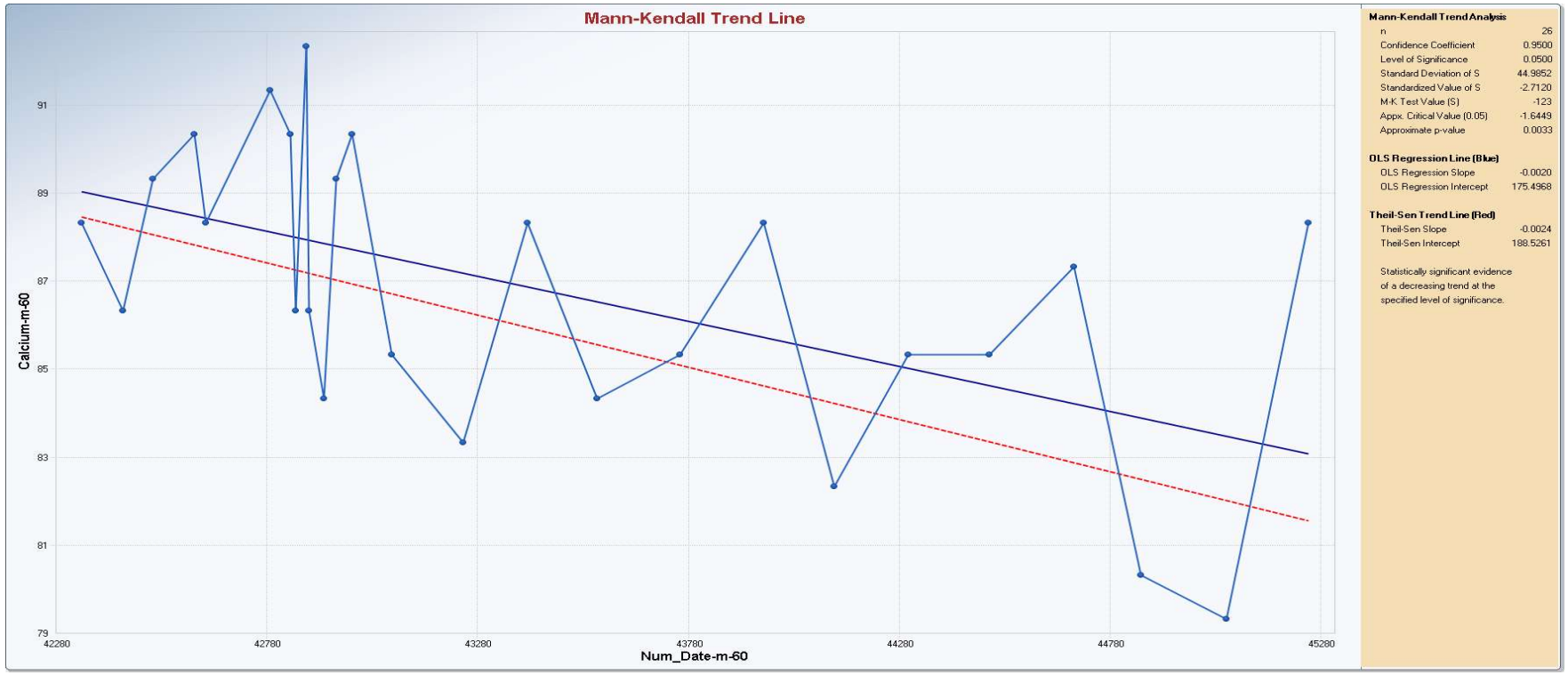
Time Series Plots



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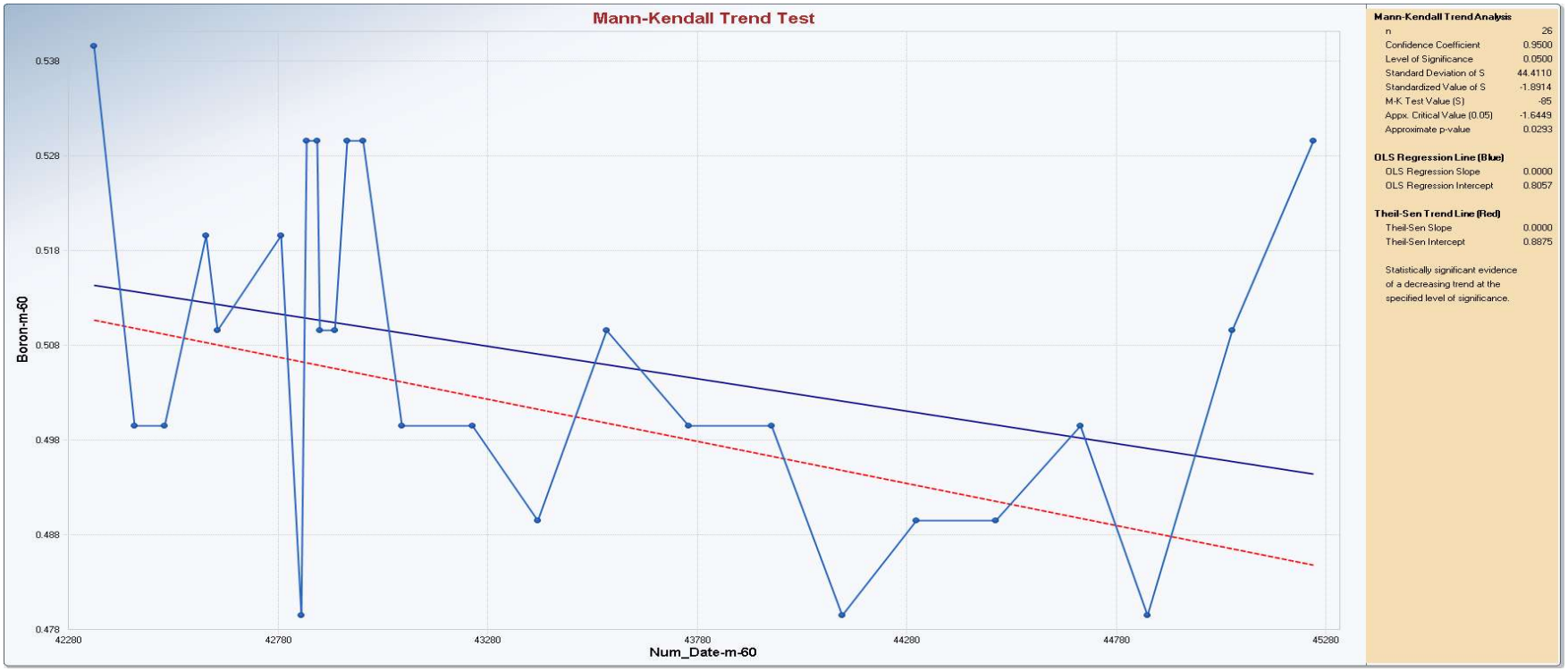
Time Series Plots



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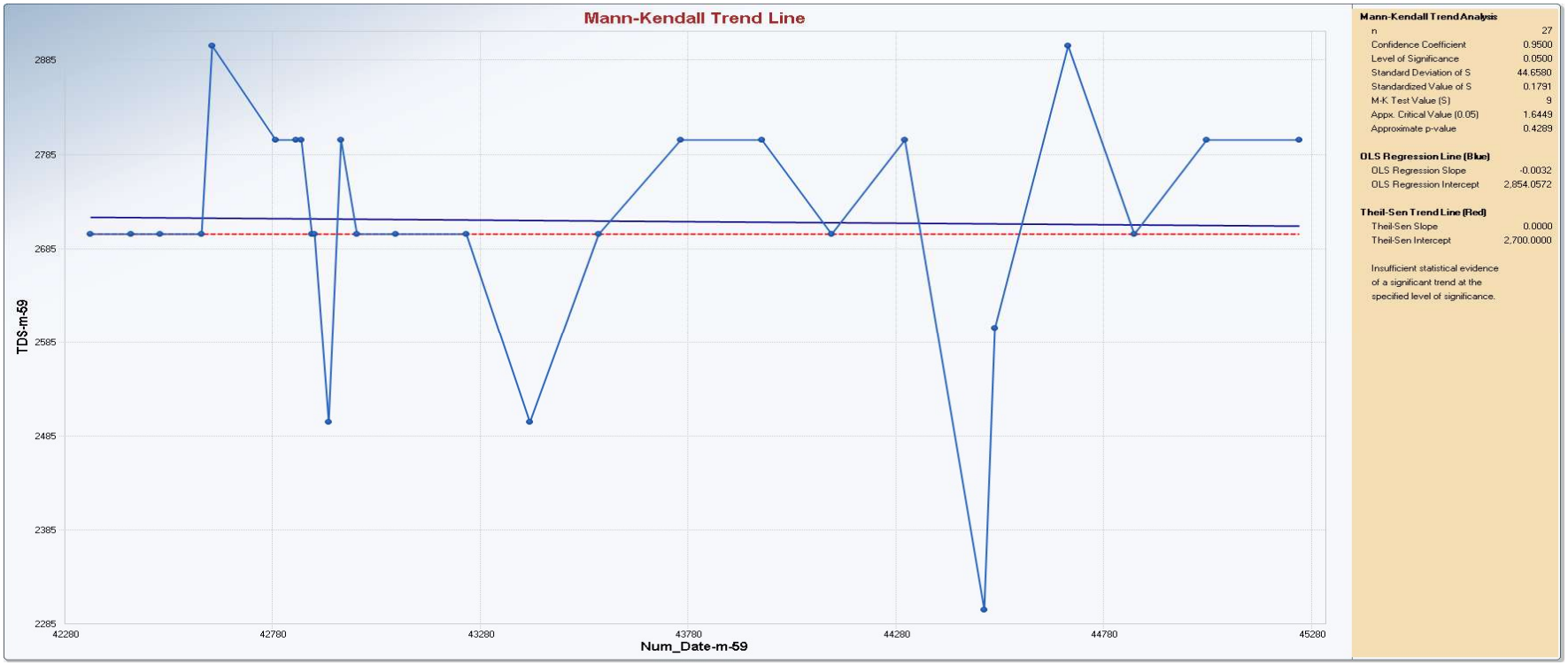

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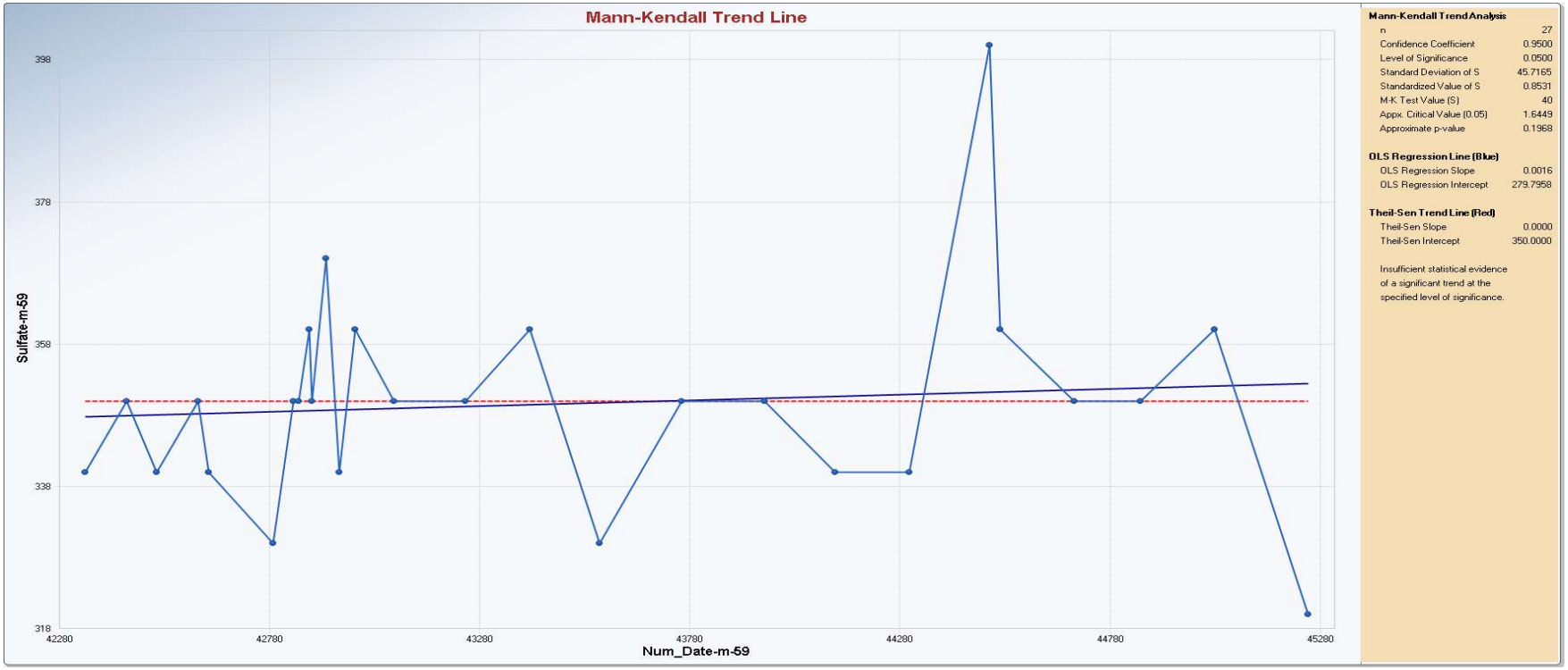

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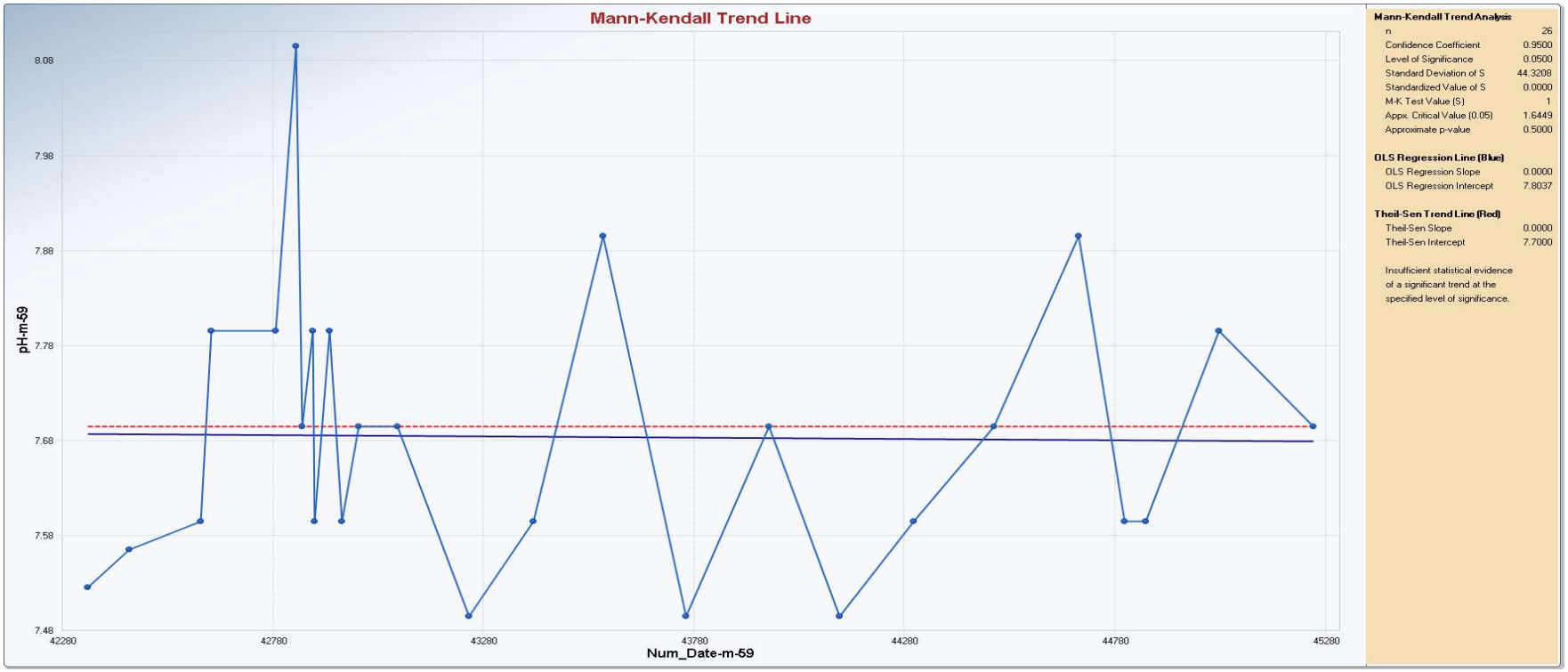

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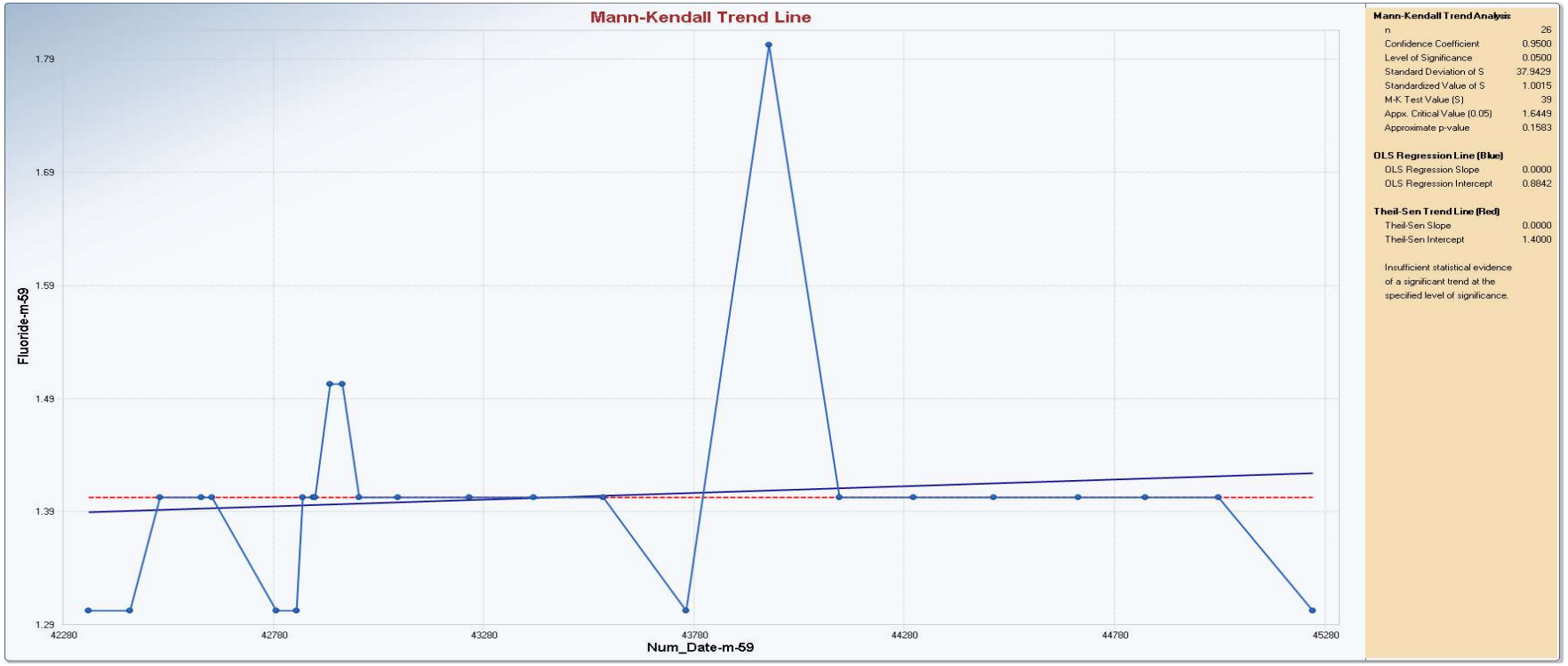
Time Series Plots



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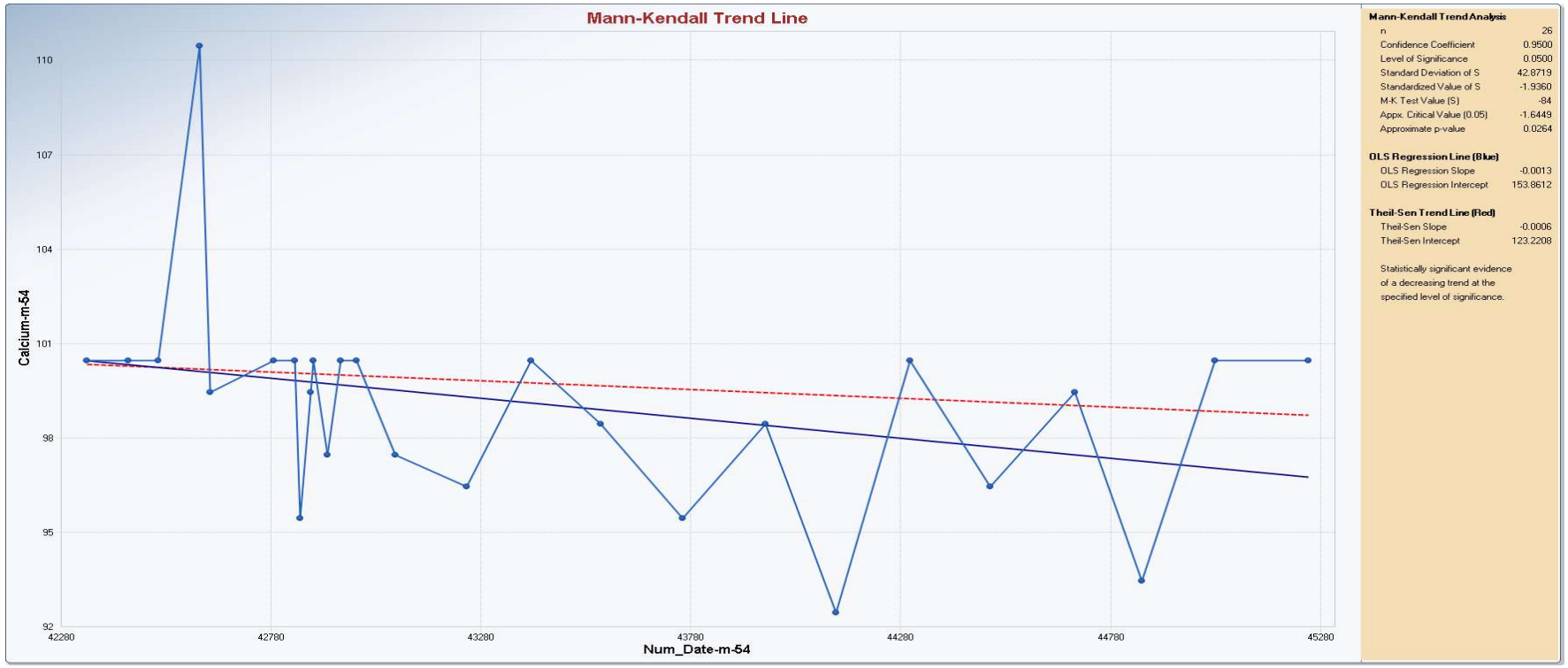

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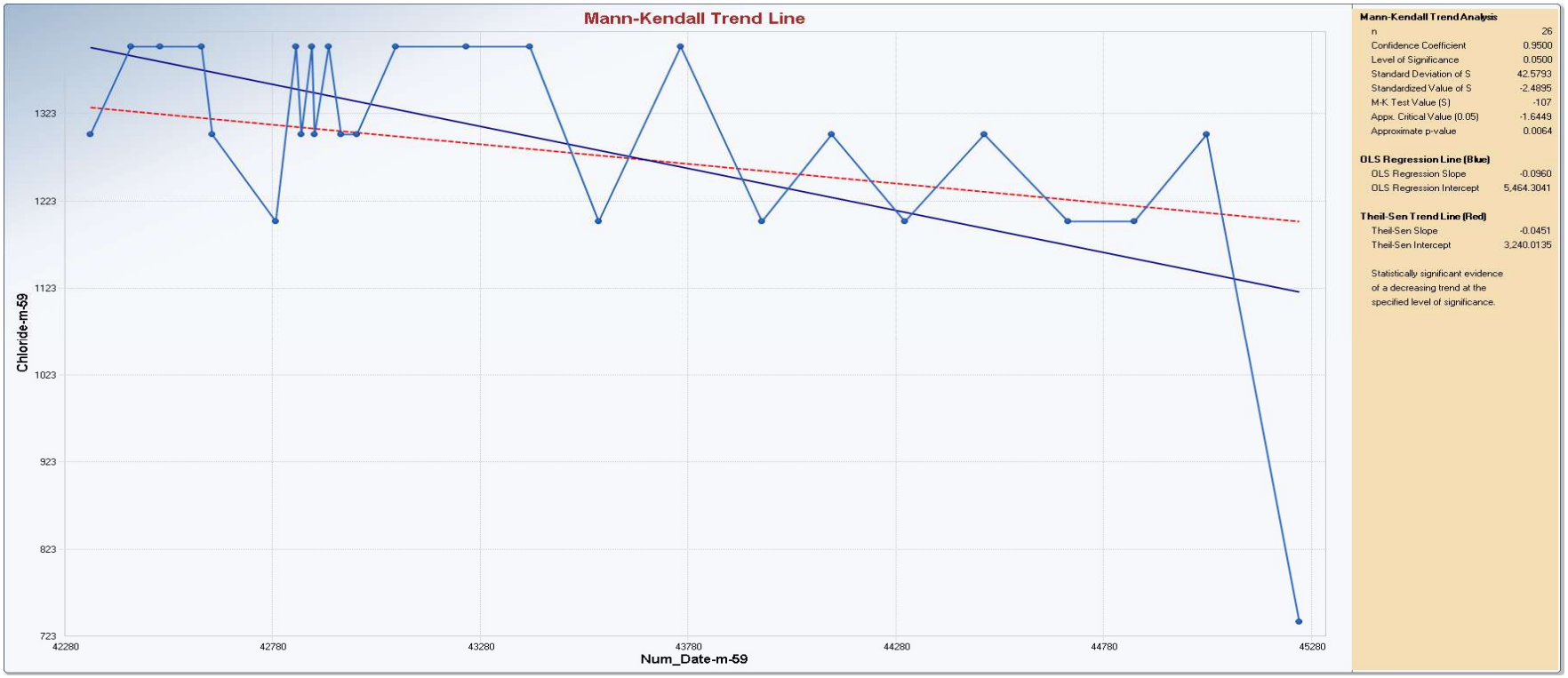
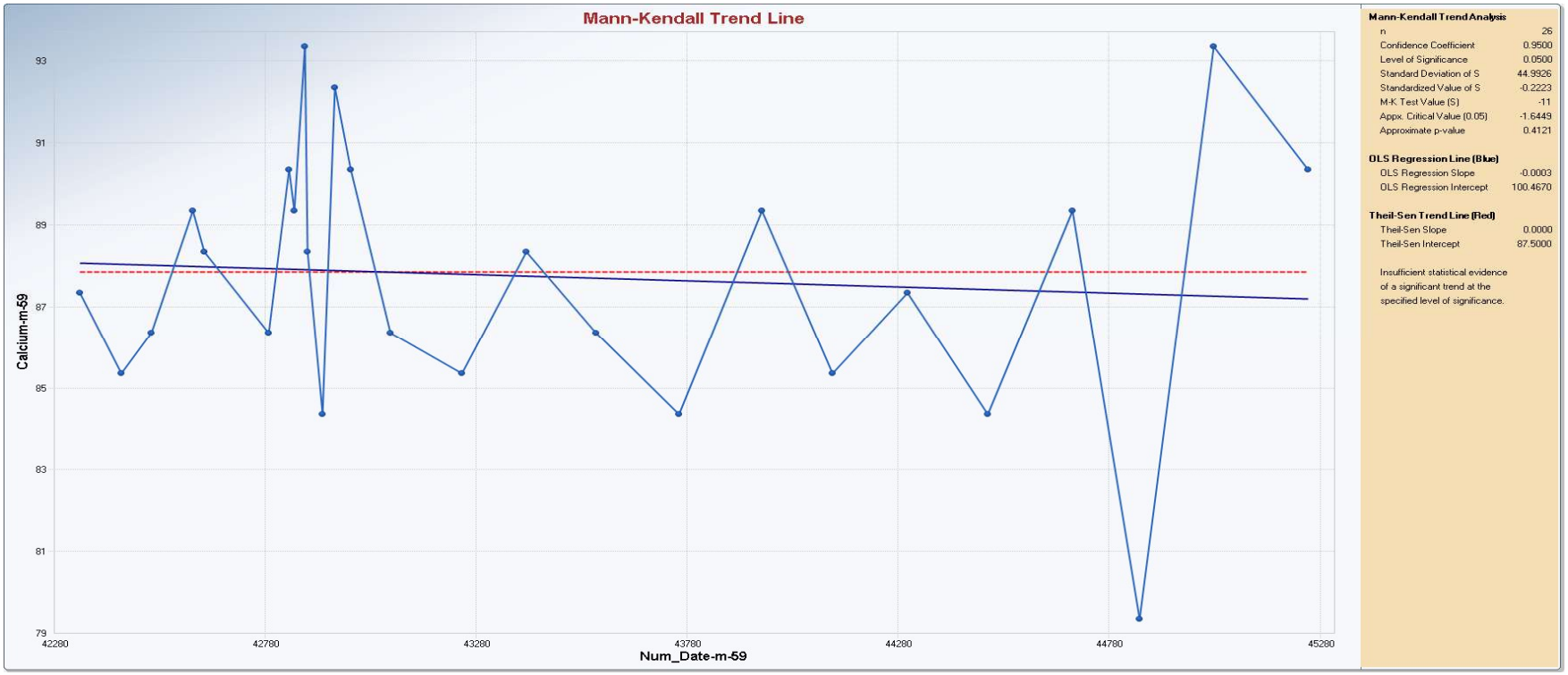
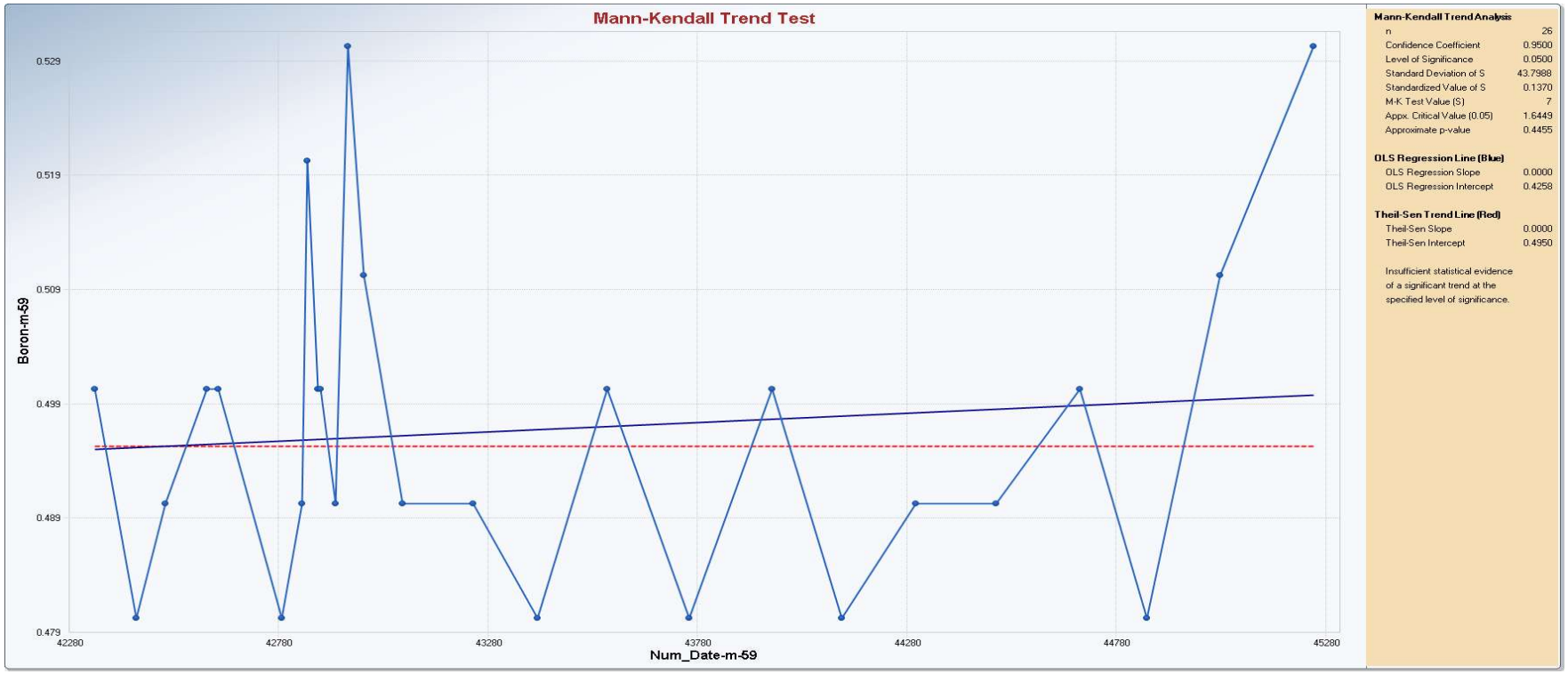


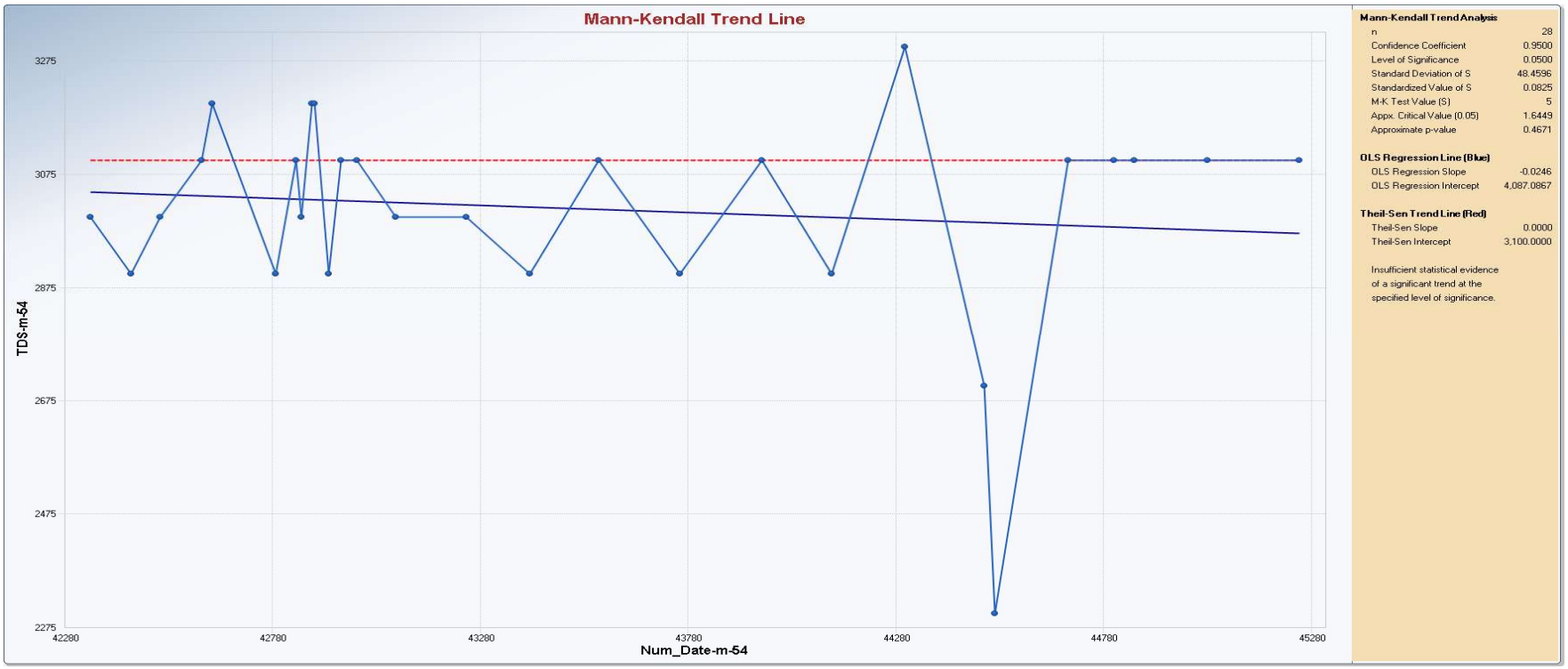
Appendix B
Time Series Plots



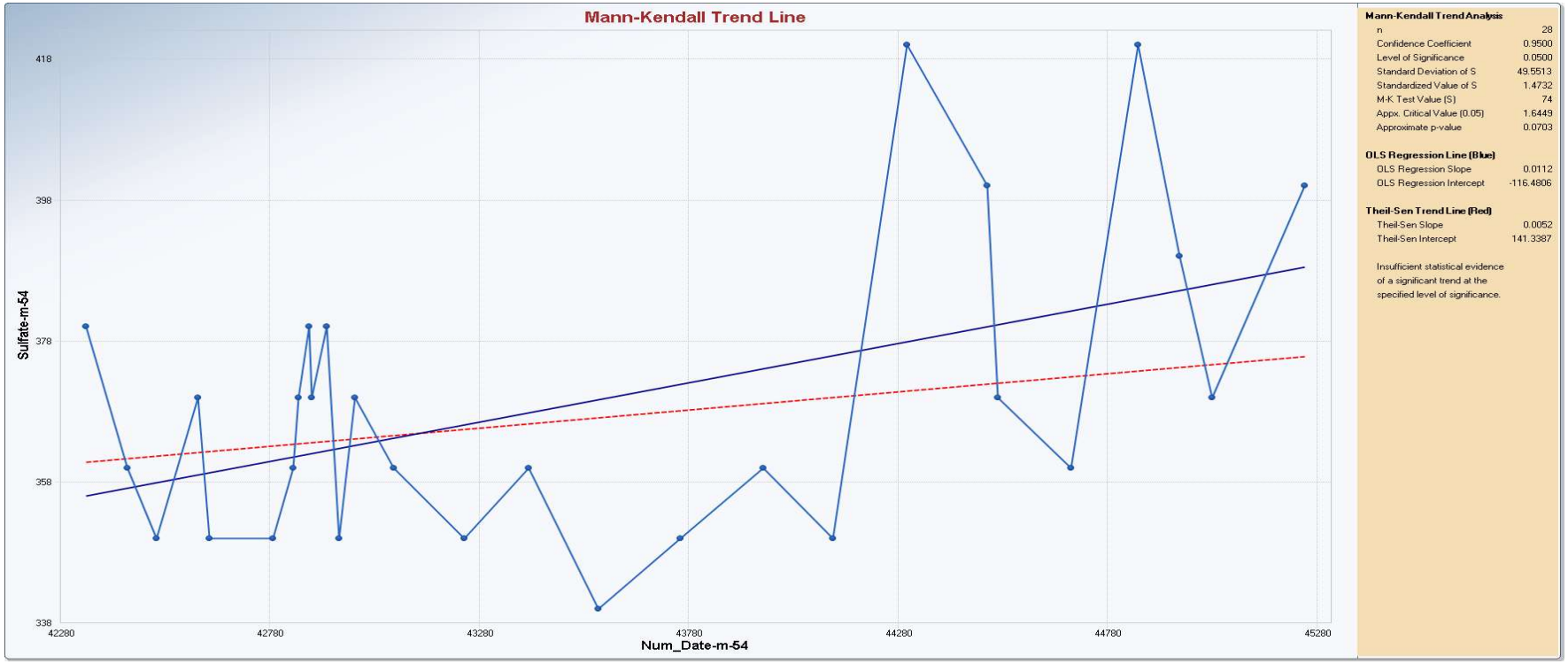
Appendix B
Time Series Plots



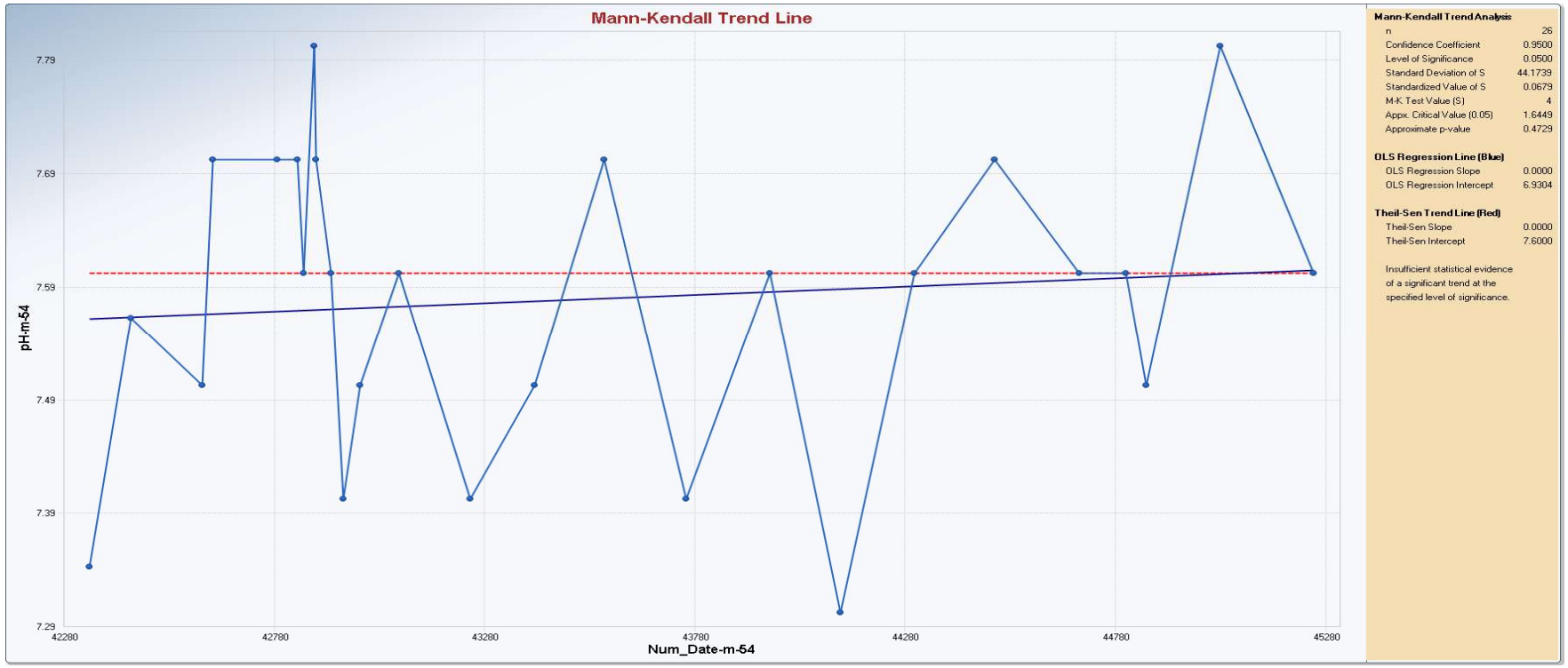
Appendix B
Time Series Plots



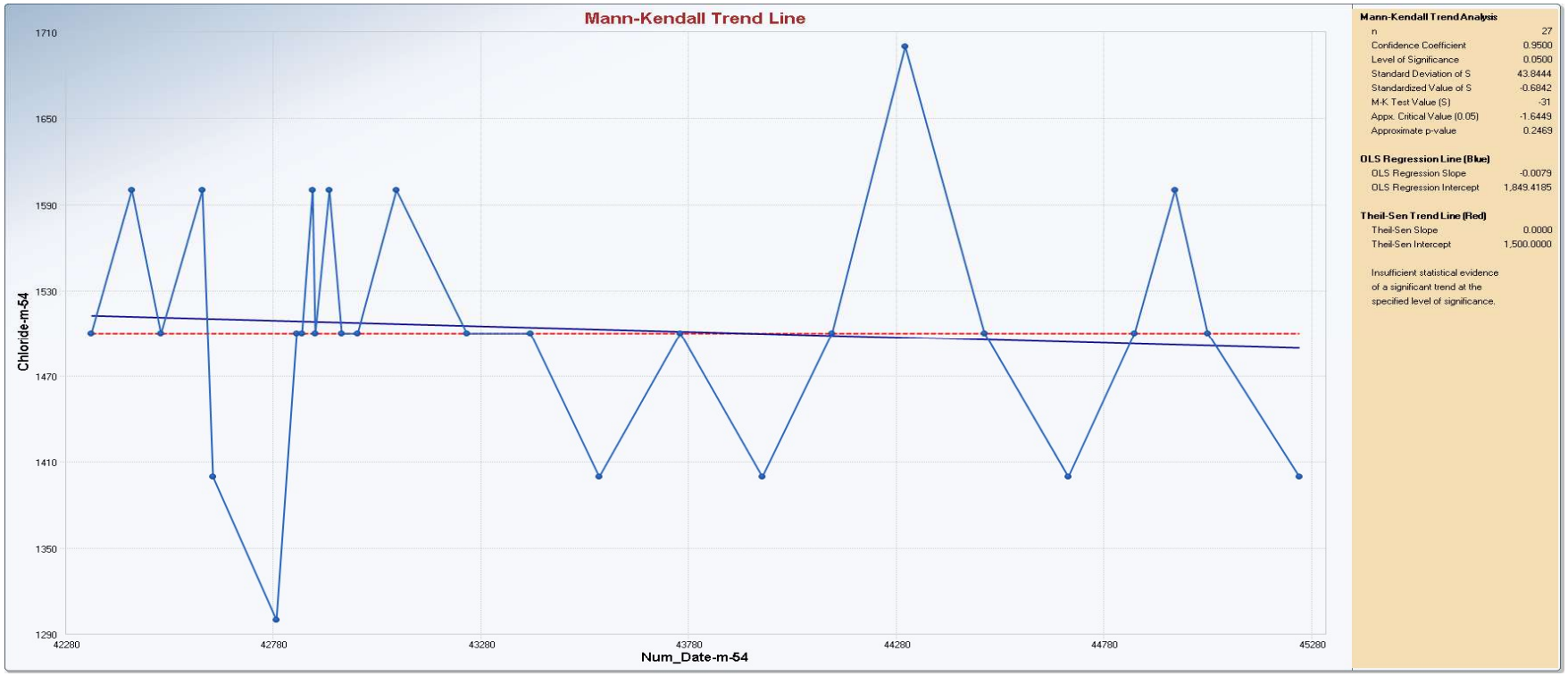
Appendix B
Time Series Plots



Appendix B
Time Series Plots



Appendix B
Time Series Plots



Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2024 11:50:47 AM
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Boron-m-54

General Statistics

Number of Events Reported (m)	29
Number of Missing Events	3
Number or Reported Events Used	26
Number Values Reported (n)	29
Number Values Missing	3
Number Values Used	26
Minimum	0.48
Maximum	0.56
Mean	0.517
Geometric Mean	0.516
Median	0.515
Standard Deviation	0.019
Coefficient of Variation	0.0367

Mann-Kendall Test

M-K Test Value (S)	-61
Critical Value (0.05)	-1.645
Standard Deviation of S	44.49
Standardized Value of S	-1.349
Approximate p-value	0.0887

Insufficient evidence to identify a significant trend at the specified level of significance.

Boron-m-59

General Statistics

Number of Events Reported (m)	28
Number of Missing Events	2
Number or Reported Events Used	26

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Number Values Reported (n)	28
Number Values Missing	2
Number Values Used	26
Minimum	0.48
Maximum	0.53
Mean	0.497
Geometric Mean	0.496
Median	0.495
Standard Deviation	0.0144
Coefficient of Variation	0.029
Mann-Kendall Test	
M-K Test Value (S)	7
Critical Value (0.05)	1.645
Standard Deviation of S	43.8
Standardized Value of S	0.137
Approximate p-value	0.446
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Boron-m-60	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	4
Number or Reported Events Used	26
Number Values Reported (n)	30
Number Values Missing	4
Number Values Used	26
Minimum	0.48
Maximum	0.54
Mean	0.507
Geometric Mean	0.507
Median	0.505
Standard Deviation	0.0173
Coefficient of Variation	0.0342
Mann-Kendall Test	
M-K Test Value (S)	-85

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Critical Value (0.05)	-1.645
Standard Deviation of S	44.41
Standardized Value of S	-1.891
Approximate p-value	0.0293
Statistically significant evidence of a decreasing	
trend at the specified level of significance.	
Boron-m-61	
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	3
Number or Reported Events Used	26
Number Values Reported (n)	29
Number Values Missing	3
Number Values Used	26
Minimum	0.48
Maximum	0.53
Mean	0.498
Geometric Mean	0.498
Median	0.5
Standard Deviation	0.0136
Coefficient of Variation	0.0272
Mann-Kendall Test	
M-K Test Value (S)	-35
Critical Value (0.05)	-1.645
Standard Deviation of S	44.03
Standardized Value of S	-0.772
Approximate p-value	0.22
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2024 11:51:43 AM
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF

Appendix B
Time Series Statistics

Number of Events Reported (m)	29							
Confidence Coefficient	0.95							
Level of Significance	0.05							
Calcium-m-54								
General Statistics								
Number of Events Reported (m)	29							
Number of Missing Events	3							
Number or Reported Events Used	26							
Number Values Reported (n)	29							
Number Values Missing	3							
Number Values Used	26							
Minimum	92							
Maximum	110							
Mean	98.62							
Geometric Mean	98.56							
Median	99.5							
Standard Deviation	3.312							
Coefficient of Variation	0.0336							
Mann-Kendall Test								
M-K Test Value (S)	-84							
Critical Value (0.05)	-1.645							
Standard Deviation of S	42.87							
Standardized Value of S	-1.936							
Approximate p-value	0.0264							
Statistically significant evidence of a decreasing trend at the specified level of significance.								
Calcium-m-59								
General Statistics								
Number of Events Reported (m)	28							
Number of Missing Events	2							
Number or Reported Events Used	26							
Number Values Reported (n)	28							
Number Values Missing	2							
Number Values Used	26							
Minimum	79							

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Maximum	93
Mean	87.38
Geometric Mean	87.33
Median	87.5
Standard Deviation	3.138
Coefficient of Variation	0.0359
Mann-Kendall Test	
M-K Test Value (S)	-11
Critical Value (0.05)	-1.645
Standard Deviation of S	44.99
Standardized Value of S	-0.222
Approximate p-value	0.412
Insufficient evidence to identify a significant trend at the specified level of significance.	
Calcium-m-60	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	4
Number or Reported Events Used	26
Number Values Reported (n)	30
Number Values Missing	4
Number Values Used	26
Minimum	79
Maximum	92
Mean	86.46
Geometric Mean	86.4
Median	86.5
Standard Deviation	3.252
Coefficient of Variation	0.0376
Mann-Kendall Test	
M-K Test Value (S)	-123
Critical Value (0.05)	-1.645
Standard Deviation of S	44.99
Standardized Value of S	-2.712
Approximate p-value	0.00334

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Statistically significant evidence of a decreasing trend at the specified level of significance.	
Calcium-m-61	
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	3
Number or Reported Events Used	26
Number Values Reported (n)	29
Number Values Missing	3
Number Values Used	26
Minimum	86
Maximum	97
Mean	90.15
Geometric Mean	90.12
Median	90
Standard Deviation	2.664
Coefficient of Variation	0.0295
Mann-Kendall Test	
M-K Test Value (S)	-4
Critical Value (0.05)	-1.645
Standard Deviation of S	44.86
Standardized Value of S	-0.0669
Approximate p-value	0.473
Insufficient evidence to identify a significant trend at the specified level of significance.	
	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2024 11:55:50 AM
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Chloride-m-54	

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	2
Number or Reported Events Used	27
Number Values Reported (n)	29
Number Values Missing	2
Number Values Used	27
Minimum	1300
Maximum	1700
Mean	1504
Geometric Mean	1501
Median	1500
Standard Deviation	85.4
Coefficient of Variation	0.0568
Mann-Kendall Test	
M-K Test Value (S)	-31
Critical Value (0.05)	-1.645
Standard Deviation of S	43.84
Standardized Value of S	-0.684
Approximate p-value	0.247
Insufficient evidence to identify a significant trend at the specified level of significance.	
Chloride-m-59	
General Statistics	
Number of Events Reported (m)	28
Number of Missing Events	2
Number or Reported Events Used	26
Number Values Reported (n)	28
Number Values Missing	2
Number Values Used	26
Minimum	740
Maximum	1400
Mean	1294
Geometric Mean	1285
Median	1300

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Standard Deviation	137.5
Coefficient of Variation	0.106
Mann-Kendall Test	
M-K Test Value (S)	-107
Critical Value (0.05)	-1.645
Standard Deviation of S	42.58
Standardized Value of S	-2.489
Approximate p-value	0.0064
Statistically significant evidence of a decreasing trend at the specified level of significance.	
Chloride-m-60	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	3
Number or Reported Events Used	27
Number Values Reported (n)	30
Number Values Missing	3
Number Values Used	27
Minimum	1200
Maximum	1500
Mean	1370
Geometric Mean	1369
Median	1400
Standard Deviation	66.88
Coefficient of Variation	0.0488
Mann-Kendall Test	
M-K Test Value (S)	-50
Critical Value (0.05)	-1.645
Standard Deviation of S	41.73
Standardized Value of S	-1.174
Approximate p-value	0.12
Insufficient evidence to identify a significant trend at the specified level of significance.	
Chloride-m-61	

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	3
Number or Reported Events Used	26
Number Values Reported (n)	29
Number Values Missing	3
Number Values Used	26
Minimum	1100
Maximum	1700
Mean	1373
Geometric Mean	1369
Median	1400
Standard Deviation	107.9
Coefficient of Variation	0.0786
Mann-Kendall Test	
M-K Test Value (S)	-66
Critical Value (0.05)	-1.645
Standard Deviation of S	40.98
Standardized Value of S	-1.586
Approximate p-value	0.0564
Insufficient evidence to identify a significant trend at the specified level of significance.	
	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2024 12:04:33 PM
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Fluoride-m-54	
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	2

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Number or Reported Events Used	27
Number Values Reported (n)	29
Number Values Missing	2
Number Values Used	27
Minimum	1.2
Maximum	1.8
Mean	1.37
Geometric Mean	1.367
Median	1.4
Standard Deviation	0.107
Coefficient of Variation	0.0779
Mann-Kendall Test	
M-K Test Value (S)	66
Critical Value (0.05)	1.645
Standard Deviation of S	41.73
Standardized Value of S	1.558
Approximate p-value	0.0597
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Fluoride-m-59	
General Statistics	
Number of Events Reported (m)	28
Number of Missing Events	2
Number or Reported Events Used	26
Number Values Reported (n)	28
Number Values Missing	2
Number Values Used	26
Minimum	1.3
Maximum	1.8
Mean	1.4
Geometric Mean	1.397
Median	1.4
Standard Deviation	0.098
Coefficient of Variation	0.07
Mann-Kendall Test	

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
M-K Test Value (S)	39
Critical Value (0.05)	1.645
Standard Deviation of S	37.94
Standardized Value of S	1.002
Approximate p-value	0.158
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Fluoride-m-60	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	3
Number or Reported Events Used	27
Number Values Reported (n)	30
Number Values Missing	3
Number Values Used	27
Minimum	1.3
Maximum	1.7
Mean	1.448
Geometric Mean	1.446
Median	1.4
Standard Deviation	0.0753
Coefficient of Variation	0.052
Mann-Kendall Test	
M-K Test Value (S)	29
Critical Value (0.05)	1.645
Standard Deviation of S	42.45
Standardized Value of S	0.66
Approximate p-value	0.255
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Fluoride-m-61	
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	2

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Number or Reported Events Used	27
Number Values Reported (n)	29
Number Values Missing	2
Number Values Used	27
Minimum	1.3
Maximum	1.6
Mean	1.426
Geometric Mean	1.424
Median	1.4
Standard Deviation	0.0764
Coefficient of Variation	0.0536
Mann-Kendall Test	
M-K Test Value (S)	13
Critical Value (0.05)	1.645
Standard Deviation of S	43.95
Standardized Value of S	0.273
Approximate p-value	0.392
Insufficient evidence to identify a significant trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2024 12:07:41 PM
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

pH-m-54

General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	3
Number or Reported Events Used	26
Number Values Reported (n)	29
Number Values Missing	3
Number Values Used	26

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Minimum	7.3
Maximum	7.8
Mean	7.577
Geometric Mean	7.576
Median	7.6
Standard Deviation	0.133
Coefficient of Variation	0.0176
Mann-Kendall Test	
M-K Test Value (S)	4
Critical Value (0.05)	1.645
Standard Deviation of S	44.17
Standardized Value of S	0.0679
Approximate p-value	0.473
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
pH-m-59	
General Statistics	
Number of Events Reported (m)	28
Number of Missing Events	2
Number or Reported Events Used	26
Number Values Reported (n)	28
Number Values Missing	2
Number Values Used	26
Minimum	7.5
Maximum	8.1
Mean	7.688
Geometric Mean	7.687
Median	7.7
Standard Deviation	0.145
Coefficient of Variation	0.0188
Mann-Kendall Test	
M-K Test Value (S)	1
Critical Value (0.05)	1.645
Standard Deviation of S	44.32
Standardized Value of S	0

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Approximate p-value	0.5
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
pH-m-60	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	5
Number or Reported Events Used	25
Number Values Reported (n)	30
Number Values Missing	5
Number Values Used	25
Minimum	7.5
Maximum	8
Mean	7.676
Geometric Mean	7.675
Median	7.7
Standard Deviation	0.126
Coefficient of Variation	0.0164
Mann-Kendall Test	
M-K Test Value (S)	-60
Critical Value (0.05)	-1.645
Standard Deviation of S	41.66
Standardized Value of S	-1.416
Approximate p-value	0.0783
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
pH-m-61	
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	4
Number or Reported Events Used	25
Number Values Reported (n)	29
Number Values Missing	4
Number Values Used	25

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Minimum	7.22
Maximum	8
Mean	7.668
Geometric Mean	7.667
Median	7.7
Standard Deviation	0.16
Coefficient of Variation	0.0209
Mann-Kendall Test	
M-K Test Value (S)	6
Critical Value (0.05)	1.645
Standard Deviation of S	41.85
Standardized Value of S	0.119
Approximate p-value	0.452
Insufficient evidence to identify a significant trend at the specified level of significance.	
	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2024 12:09:57 PM
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Sulfate-m-54	
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	1
Number or Reported Events Used	28
Number Values Reported (n)	29
Number Values Missing	1
Number Values Used	28
Minimum	340
Maximum	420
Mean	369.3
Geometric Mean	368.7

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Median	365
Standard Deviation	20.89
Coefficient of Variation	0.0566
Mann-Kendall Test	
M-K Test Value (S)	74
Critical Value (0.05)	1.645
Standard Deviation of S	49.55
Standardized Value of S	1.473
Approximate p-value	0.0703
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Sulfate-m-59	
General Statistics	
Number of Events Reported (m)	28
Number of Missing Events	1
Number or Reported Events Used	27
Number Values Reported (n)	28
Number Values Missing	1
Number Values Used	27
Minimum	320
Maximum	400
Mean	349.6
Geometric Mean	349.3
Median	350
Standard Deviation	14.8
Coefficient of Variation	0.0423
Mann-Kendall Test	
M-K Test Value (S)	40
Critical Value (0.05)	1.645
Standard Deviation of S	45.72
Standardized Value of S	0.853
Approximate p-value	0.197
Insufficient evidence to identify a significant	
trend at the specified level of significance.	

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Sulfate-m-60	
General Statistics	
Number of Events Reported (m)	30
Number of Missing Events	2
Number or Reported Events Used	28
Number Values Reported (n)	30
Number Values Missing	2
Number Values Used	28
Minimum	340
Maximum	450
Mean	365
Geometric Mean	364.1
Median	360
Standard Deviation	27.15
Coefficient of Variation	0.0744
Mann-Kendall Test	
M-K Test Value (S)	105
Critical Value (0.05)	1.645
Standard Deviation of S	48.83
Standardized Value of S	2.13
Approximate p-value	0.0166
Statistically significant evidence of an increasing trend at the specified level of significance.	
Sulfate-m-61	
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	2
Number or Reported Events Used	27
Number Values Reported (n)	29
Number Values Missing	2
Number Values Used	27
Minimum	340
Maximum	420
Mean	362.6
Geometric Mean	362.1

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Median	360
Standard Deviation	20.11
Coefficient of Variation	0.0555
Mann-Kendall Test	
M-K Test Value (S)	38
Critical Value (0.05)	1.645
Standard Deviation of S	46.67
Standardized Value of S	0.793
Approximate p-value	0.214
Insufficient evidence to identify a significant trend at the specified level of significance.	

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2024 12:12:20 PM
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

TDS-m-54

General Statistics

Number of Events Reported (m)	29
Number of Missing Events	1
Number or Reported Events Used	28
Number Values Reported (n)	29
Number Values Missing	1
Number Values Used	28
Minimum	2300
Maximum	3300
Mean	3014
Geometric Mean	3008
Median	3100
Standard Deviation	188
Coefficient of Variation	0.0624

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Mann-Kendall Test	
M-K Test Value (S)	5
Critical Value (0.05)	1.645
Standard Deviation of S	48.46
Standardized Value of S	0.0825
Approximate p-value	0.467
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
TDS-m-59	
General Statistics	
Number of Events Reported (m)	28
Number of Missing Events	1
Number or Reported Events Used	27
Number Values Reported (n)	28
Number Values Missing	1
Number Values Used	27
Minimum	2300
Maximum	2900
Mean	2715
Geometric Mean	2712
Median	2700
Standard Deviation	126.2
Coefficient of Variation	0.0465
Mann-Kendall Test	
M-K Test Value (S)	9
Critical Value (0.05)	1.645
Standard Deviation of S	44.66
Standardized Value of S	0.179
Approximate p-value	0.429
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
TDS-m-60	
General Statistics	
Number of Events Reported (m)	30

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Number of Missing Events	1
Number or Reported Events Used	29
Number Values Reported (n)	30
Number Values Missing	1
Number Values Used	29
Minimum	2200
Maximum	4200
Mean	2866
Geometric Mean	2847
Median	2800
Standard Deviation	351.8
Coefficient of Variation	0.123
Mann-Kendall Test	
M-K Test Value (S)	38
Critical Value (0.05)	1.645
Standard Deviation of S	50.25
Standardized Value of S	0.736
Approximate p-value	0.231
Insufficient evidence to identify a significant trend at the specified level of significance.	
TDS-m-61	
General Statistics	
Number of Events Reported (m)	29
Number of Missing Events	1
Number or Reported Events Used	28
Number Values Reported (n)	29
Number Values Missing	1
Number Values Used	28
Minimum	2300
Maximum	3800
Mean	2854
Geometric Mean	2844
Median	2800
Standard Deviation	244.2
Coefficient of Variation	0.0856

Appendix B
Time Series Statistics

Number of Events Reported (m)	29
Mann-Kendall Test	
M-K Test Value (S)	38
Critical Value (0.05)	1.645
Standard Deviation of S	49.04
Standardized Value of S	0.754
Approximate p-value	0.225
Insufficient evidence to identify a significant	
trend at the specified level of significance.	

Appendix B
Summary Statistics

	General Statistics on Uncensored Data
Date/Time of Computation	ProUCL 5.13/8/2024 11:07:55 AM
User Selected Options	
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF

From File: 20240308_Cholla_BAM_ProUCL_Upload.xls

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method

Variable	NumObs	# Missing	Num Ds	NumNDs	% NDs	Min ND	Max ND	KM Mean	KM Var	KM SD	KM CV
Boron (m-54)	26	3	26	0	0.00%	N/A	N/A	0.517	3.5954E-4	0.019	0.0367
Boron (m-59)	26	2	26	0	0.00%	N/A	N/A	0.497	2.0754E-4	0.0144	0.029
Boron (m-60)	26	4	26	0	0.00%	N/A	N/A	0.507	3.0046E-4	0.0173	0.0342
Boron (m-61)	26	3	26	0	0.00%	N/A	N/A	0.498	1.8415E-4	0.0136	0.0272
Calcium (m-54)	26	3	26	0	0.00%	N/A	N/A	98.62	10.97	3.312	0.0336
Calcium (m-59)	26	2	26	0	0.00%	N/A	N/A	87.38	9.846	3.138	0.0359
Calcium (m-60)	26	4	26	0	0.00%	N/A	N/A	86.46	10.58	3.252	0.0376
Calcium (m-61)	26	3	26	0	0.00%	N/A	N/A	90.15	7.095	2.664	0.0295
Chloride (m-54)	27	2	27	0	0.00%	N/A	N/A	1504	7293	85.4	0.0568
Chloride (m-59)	26	2	26	0	0.00%	N/A	N/A	1294	18905	137.5	0.106
Chloride (m-60)	27	3	27	0	0.00%	N/A	N/A	1370	4473	66.88	0.0488
Chloride (m-61)	26	3	26	0	0.00%	N/A	N/A	1373	11646	107.9	0.0786
Fluoride (m-54)	27	2	27	0	0.00%	N/A	N/A	1.37	0.0114	0.107	0.0779
Fluoride (m-59)	26	2	26	0	0.00%	N/A	N/A	1.4	0.0096	0.098	0.07
Fluoride (m-60)	27	3	27	0	0.00%	N/A	N/A	1.448	0.00567	0.0753	0.052
Fluoride (m-61)	27	2	27	0	0.00%	N/A	N/A	1.426	0.00584	0.0764	0.0536
pH (m-54)	26	3	26	0	0.00%	N/A	N/A	7.577	0.0178	0.133	0.0176
pH (m-59)	26	2	26	0	0.00%	N/A	N/A	7.688	0.0209	0.145	0.0188
pH (m-60)	25	5	25	0	0.00%	N/A	N/A	7.676	0.0159	0.126	0.0164
pH (m-61)	25	4	25	0	0.00%	N/A	N/A	7.668	0.0257	0.16	0.0209
Sulfate (m-54)	28	1	27	1	3.57%	400	400	367.9	392.5	19.81	0.0538
Sulfate (m-59)	27	1	27	0	0.00%	N/A	N/A	349.6	219.1	14.8	0.0423
Sulfate (m-60)	28	2	27	1	3.57%	400	400	363.4	671.3	25.91	0.0713
Sulfate (m-61)	27	2	26	1	3.70%	400	400	361	342	18.49	0.0512
TDS (m-54)	28	1	28	0	0.00%	N/A	N/A	3014	35344	188	0.0624
TDS (m-59)	27	1	27	0	0.00%	N/A	N/A	2715	15926	126.2	0.0465
TDS (m-60)	29	1	28	1	3.45%	2700	2700	2856	125908	354.8	0.124

Appendix B
Summary Statistics

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method											
TDS (m-61)	28	1	28	0	0.00%	N/A	N/A	2854	59616	244.2	0.0856

General Statistics for Raw Data Sets using Detected Data Only											
Variable	**NumObs**	**# Missing**	**Minimum**	**Maximum**	**Mean**	**Median**	**Var**	**SD**	**MAD/0.675**	**Skewness**	**CV**
Boron (m-54)	26	3	0.48	0.56	0.517	0.515	3.5954E-4	0.019	0.0222	0.467	0.0367
Boron (m-59)	26	2	0.48	0.53	0.497	0.495	2.0754E-4	0.0144	0.00741	0.927	0.029
Boron (m-60)	26	4	0.48	0.54	0.507	0.505	3.0046E-4	0.0173	0.0222	0.151	0.0342
Boron (m-61)	26	3	0.48	0.53	0.498	0.5	1.8415E-4	0.0136	0.0148	0.481	0.0272
Calcium (m-54)	26	3	92	110	98.62	99.5	10.97	3.312	0.741	1.076	0.0336
Calcium (m-59)	26	2	79	93	87.38	87.5	9.846	3.138	2.965	-0.328	0.0359
Calcium (m-60)	26	4	79	92	86.46	86.5	10.58	3.252	2.965	-0.517	0.0376
Calcium (m-61)	26	3	86	97	90.15	90	7.095	2.664	2.965	0.482	0.0295
Chloride (m-54)	27	2	1300	1700	1504	1500	7293	85.4	0	-0.0739	0.0568
Chloride (m-59)	26	2	740	1400	1294	1300	18905	137.5	148.3	-2.716	0.106
Chloride (m-60)	27	3	1200	1500	1370	1400	4473	66.88	0	-0.411	0.0488
Chloride (m-61)	26	3	1100	1700	1373	1400	11646	107.9	0	0.38	0.0786
Fluoride (m-54)	27	2	1.2	1.8	1.37	1.4	0.0114	0.107	0	2.289	0.0779
Fluoride (m-59)	26	2	1.3	1.8	1.4	1.4	0.0096	0.098	0	2.764	0.07
Fluoride (m-60)	27	3	1.3	1.7	1.448	1.4	0.00567	0.0753	0	1.235	0.052
Fluoride (m-61)	27	2	1.3	1.6	1.426	1.4	0.00584	0.0764	0.148	0.0669	0.0536
pH (m-54)	26	3	7.3	7.8	7.577	7.6	0.0178	0.133	0.148	-0.355	0.0176
pH (m-59)	26	2	7.5	8.1	7.688	7.7	0.0209	0.145	0.148	0.933	0.0188
pH (m-60)	25	5	7.5	8	7.676	7.7	0.0159	0.126	0.148	0.491	0.0164
pH (m-61)	25	4	7.22	8	7.668	7.7	0.0257	0.16	0.148	-0.533	0.0209
Sulfate (m-54)	27	1	340	420	368.1	360	415.7	20.39	14.83	1.271	0.0554
Sulfate (m-59)	27	1	320	400	349.6	350	219.1	14.8	14.83	1.221	0.0423
Sulfate (m-60)	27	2	340	450	363.7	360	716.5	26.77	14.83	2.325	0.0736
Sulfate (m-61)	26	2	340	420	361.2	360	362.6	19.04	14.83	1.554	0.0527
TDS (m-54)	28	1	2300	3300	3014	3100	35344	188	148.3	-2.131	0.0624
TDS (m-59)	27	1	2300	2900	2715	2700	15926	126.2	148.3	-1.54	0.0465
TDS (m-60)	28	1	2200	4200	2871	2800	127302	356.8	148.3	2.423	0.124
TDS (m-61)	28	1	2300	3800	2854	2800	59616	244.2	148.3	1.902	0.0856

Percentiles using all Detects (Ds) and Non-Detects (NDs)											
Variable	**NumObs**	**# Missing**	**10%ile**	**20%ile**	**25%ile(Q1)**	**50%ile(Q2)**	**75%ile(Q3)**	**80%ile**	**90%ile**	**95%ile**	**99%ile**

Appendix B
Summary Statistics

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method											
Boron (m-54)	26	3	0.5	0.5	0.5	0.515	0.53	0.53	0.54	0.55	0.558
Boron (m-59)	26	2	0.48	0.48	0.49	0.495	0.5	0.5	0.515	0.528	0.53
Boron (m-60)	26	4	0.485	0.49	0.5	0.505	0.52	0.53	0.53	0.53	0.538
Boron (m-61)	26	3	0.48	0.49	0.49	0.5	0.508	0.51	0.515	0.52	0.528
Calcium (m-54)	26	3	95	96	97	99.5	100	100	100	100	107.5
Calcium (m-59)	26	2	84	85	85.25	87.5	89	90	91	92.75	93
Calcium (m-60)	26	4	82.5	84	85	86.5	88.75	89	90	90.75	91.75
Calcium (m-61)	26	3	87	88	88	90	92	92	93	93.75	96.25
Chloride (m-54)	27	2	1400	1420	1500	1500	1550	1600	1600	1600	1674
Chloride (m-59)	26	2	1200	1200	1225	1300	1400	1400	1400	1400	1400
Chloride (m-60)	27	3	1300	1300	1300	1400	1400	1400	1400	1470	1500
Chloride (m-61)	26	3	1300	1300	1300	1400	1400	1400	1450	1500	1650
Fluoride (m-54)	27	2	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.696
Fluoride (m-59)	26	2	1.3	1.3	1.4	1.4	1.4	1.4	1.45	1.5	1.725
Fluoride (m-60)	27	3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.648
Fluoride (m-61)	27	2	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.574
pH (m-54)	26	3	7.4	7.5	7.5	7.6	7.7	7.7	7.7	7.775	7.8
pH (m-59)	26	2	7.515	7.6	7.6	7.7	7.8	7.8	7.85	7.9	8.05
pH (m-60)	25	5	7.5	7.592	7.6	7.7	7.8	7.8	7.8	7.824	7.959
pH (m-61)	25	4	7.5	7.572	7.6	7.7	7.8	7.8	7.8	7.88	7.976
Sulfate (m-54)	28	1	350	350	350	365	380	380	400	413	420
Sulfate (m-59)	27	1	336	340	340	350	355	360	360	367	392.2
Sulfate (m-60)	28	2	347	350	350	360	370	370	400	426	447.3
Sulfate (m-61)	27	2	340	350	350	360	370	370	394	400	414.8
TDS (m-54)	28	1	2900	2900	2900	3100	3100	3100	3200	3200	3273
TDS (m-59)	27	1	2560	2700	2700	2700	2800	2800	2800	2870	2900
TDS (m-60)	29	1	2680	2760	2800	2800	2900	2900	2920	3480	4088
TDS (m-61)	28	1	2700	2700	2775	2800	2900	2900	3000	3130	3638

Appendix B
Goodness of Fit Statistics

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2024 11:37:11 AM
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF
Confidence Coefficient	0.95

Boron (m-54)

Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	3
Number of Distinct Observations	8
Minimum	0.48
Maximum	0.56
Mean of Raw Data	0.517
Standard Deviation of Raw Data	0.019
Khat	778.7
Theta hat	6.6331E-4
Kstar	688.9
Theta star	7.4980E-4
Mean of Log Transformed Data	-0.661
Standard Deviation of Log Transformed Data	0.0365

Normal GOF Test Results	
Correlation Coefficient R	0.974
Shapiro Wilk Test Statistic	0.951
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.261
Lilliefors Test Statistic	0.135
Lilliefors Critical (0.05) Value	0.17

Data appear Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.977
A-D Test Statistic	0.559
A-D Critical (0.05) Value	0.742

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
K-S Test Statistic	0.134
K-S Critical(0.05) Value	0.171
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.977
Shapiro Wilk Test Statistic	0.955
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.329
Lilliefors Test Statistic	0.13
Lilliefors Critical (0.05) Value	0.17
Data appear Lognormal at (0.05) Significance Level	
Boron (m-59)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	2
Number of Distinct Observations	6
Minimum	0.48
Maximum	0.53
Mean of Raw Data	0.497
Standard Deviation of Raw Data	0.0144
Khat	1255
Theta hat	3.9569E-4
Kstar	1110
Theta star	4.4730E-4
Mean of Log Transformed Data	-0.7
Standard Deviation of Log Transformed Data	0.0287
Normal GOF Test Results	
Correlation Coefficient R	0.939
Shapiro Wilk Test Statistic	0.872
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.00351
Lilliefors Test Statistic	0.213
Lilliefors Critical (0.05) Value	0.17

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.941
A-D Test Statistic	1.1
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.207
K-S Critical(0.05) Value	0.171
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.942
Shapiro Wilk Test Statistic	0.878
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.00469
Lilliefors Test Statistic	0.207
Lilliefors Critical (0.05) Value	0.17
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Boron (m-60)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	4
Number of Distinct Observations	7
Minimum	0.48
Maximum	0.54
Mean of Raw Data	0.507
Standard Deviation of Raw Data	0.0173
Khat	892.8
Theta hat	5.6823E-4
Kstar	789.8
Theta star	6.4232E-4

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Mean of Log Transformed Data	-0.679
Standard Deviation of Log Transformed Data	0.0341
Normal GOF Test Results	
Correlation Coefficient R	0.973
Shapiro Wilk Test Statistic	0.933
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.101
Lilliefors Test Statistic	0.163
Lilliefors Critical (0.05) Value	0.17
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.972
A-D Test Statistic	0.668
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.163
K-S Critical(0.05) Value	0.171
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.974
Shapiro Wilk Test Statistic	0.934
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.107
Lilliefors Test Statistic	0.159
Lilliefors Critical (0.05) Value	0.17
Data appear Lognormal at (0.05) Significance Level	
Boron (m-61)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	3
Number of Distinct Observations	6
Minimum	0.48

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Maximum	0.53
Mean of Raw Data	0.498
Standard Deviation of Raw Data	0.0136
Khat	1411
Theta hat	3.5293E-4
Kstar	1248
Theta star	3.9895E-4
Mean of Log Transformed Data	-0.697
Standard Deviation of Log Transformed Data	0.0271
Normal GOF Test Results	
Correlation Coefficient R	0.965
Shapiro Wilk Test Statistic	0.923
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.0551
Lilliefors Test Statistic	0.174
Lilliefors Critical (0.05) Value	0.17
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.966
A-D Test Statistic	0.752
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.17
K-S Critical(0.05) Value	0.171
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.966
Shapiro Wilk Test Statistic	0.924
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.061
Lilliefors Test Statistic	0.169
Lilliefors Critical (0.05) Value	0.17
Data appear Lognormal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Calcium (m-54)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	3
Number of Distinct Observations	9
Minimum	92
Maximum	110
Mean of Raw Data	98.62
Standard Deviation of Raw Data	3.312
Khat	940
Theta hat	0.105
Kstar	831.6
Theta star	0.119
Mean of Log Transformed Data	4.591
Standard Deviation of Log Transformed Data	0.0331
Normal GOF Test Results	
Correlation Coefficient R	0.882
Shapiro Wilk Test Statistic	0.808
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	1.4293E-4
Lilliefors Test Statistic	0.299
Lilliefors Critical (0.05) Value	0.17
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.886
A-D Test Statistic	1.782
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.292
K-S Critical(0.05) Value	0.171
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.89

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Shapiro Wilk Test Statistic	0.821
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	2.6668E-4
Lilliefors Test Statistic	0.293
Lilliefors Critical (0.05) Value	0.17
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Calcium (m-59)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	2
Number of Distinct Observations	10
Minimum	79
Maximum	93
Mean of Raw Data	87.38
Standard Deviation of Raw Data	3.138
Khat	799.2
Theta hat	0.109
Kstar	707
Theta star	0.124
Mean of Log Transformed Data	4.47
Standard Deviation of Log Transformed Data	0.0362
Normal GOF Test Results	
Correlation Coefficient R	0.977
Shapiro Wilk Test Statistic	0.96
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.423
Lilliefors Test Statistic	0.102
Lilliefors Critical (0.05) Value	0.17
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Correlation Coefficient R	0.977
A-D Test Statistic	0.34
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.0977
K-S Critical(0.05) Value	0.171
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.974
Shapiro Wilk Test Statistic	0.956
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.336
Lilliefors Test Statistic	0.103
Lilliefors Critical (0.05) Value	0.17
Data appear Lognormal at (0.05) Significance Level	
Calcium (m-60)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	4
Number of Distinct Observations	13
Minimum	79
Maximum	92
Mean of Raw Data	86.46
Standard Deviation of Raw Data	3.252
Khat	725
Theta hat	0.119
Kstar	641.4
Theta star	0.135
Mean of Log Transformed Data	4.459
Standard Deviation of Log Transformed Data	0.038
Normal GOF Test Results	
Correlation Coefficient R	0.984
Shapiro Wilk Test Statistic	0.964

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.508
Lilliefors Test Statistic	0.143
Lilliefors Critical (0.05) Value	0.17
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.982
A-D Test Statistic	0.366
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.149
K-S Critical(0.05) Value	0.171
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.981
Shapiro Wilk Test Statistic	0.959
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.387
Lilliefors Test Statistic	0.147
Lilliefors Critical (0.05) Value	0.17
Data appear Lognormal at (0.05) Significance Level	
Calcium (m-61)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	3
Number of Distinct Observations	10
Minimum	86
Maximum	97
Mean of Raw Data	90.15
Standard Deviation of Raw Data	2.664
Khat	1201
Theta hat	0.0751
Kstar	1062
Theta star	0.0849

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Mean of Log Transformed Data	4.501
Standard Deviation of Log Transformed Data	0.0294
Normal GOF Test Results	
Correlation Coefficient R	0.98
Shapiro Wilk Test Statistic	0.959
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.396
Lilliefors Test Statistic	0.137
Lilliefors Critical (0.05) Value	0.17
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.981
A-D Test Statistic	0.362
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.142
K-S Critical(0.05) Value	0.171
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.982
Shapiro Wilk Test Statistic	0.962
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.458
Lilliefors Test Statistic	0.137
Lilliefors Critical (0.05) Value	0.17
Data appear Lognormal at (0.05) Significance Level	
Chloride (m-54)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	2
Number of Distinct Observations	5
Minimum	1300

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Maximum	1700
Mean of Raw Data	1504
Standard Deviation of Raw Data	85.4
Khat	319.7
Theta hat	4.704
Kstar	284.2
Theta star	5.292
Mean of Log Transformed Data	7.314
Standard Deviation of Log Transformed Data	0.0571
Normal GOF Test Results	
Correlation Coefficient R	0.936
Shapiro Wilk Test Statistic	0.889
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.00724
Lilliefors Test Statistic	0.26
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.937
A-D Test Statistic	1.722
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.268
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.935
Shapiro Wilk Test Statistic	0.886
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.00628
Lilliefors Test Statistic	0.271
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Chloride (m-59)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	2
Number of Distinct Observations	4
Minimum	740
Maximum	1400
Mean of Raw Data	1294
Standard Deviation of Raw Data	137.5
Khat	72.68
Theta hat	17.8
Kstar	64.32
Theta star	20.12
Mean of Log Transformed Data	7.158
Standard Deviation of Log Transformed Data	0.128
Normal GOF Test Results	
Correlation Coefficient R	0.81
Shapiro Wilk Test Statistic	0.678
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	6.1804E-7
Lilliefors Test Statistic	0.249
Lilliefors Critical (0.05) Value	0.17
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.791
A-D Test Statistic	2.654
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.262
K-S Critical(0.05) Value	0.171
Data not Gamma Distributed at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Lognormal GOF Test Results	
Correlation Coefficient R	0.754
Shapiro Wilk Test Statistic	0.595
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	3.1261E-8
Lilliefors Test Statistic	0.267
Lilliefors Critical (0.05) Value	0.17
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Chloride (m-60)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	4
Minimum	1200
Maximum	1500
Mean of Raw Data	1370
Standard Deviation of Raw Data	66.88
Khat	429.2
Theta hat	3.193
Kstar	381.5
Theta star	3.592
Mean of Log Transformed Data	7.222
Standard Deviation of Log Transformed Data	0.0494
Normal GOF Test Results	
Correlation Coefficient R	0.892
Shapiro Wilk Test Statistic	0.807
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	1.0458E-4
Lilliefors Test Statistic	0.338

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.891
A-D Test Statistic	2.885
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.344
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.889
Shapiro Wilk Test Statistic	0.804
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	8.8470E-5
Lilliefors Test Statistic	0.343
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Chloride (m-61)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	3
Number of Distinct Observations	6
Minimum	1100
Maximum	1700
Mean of Raw Data	1373
Standard Deviation of Raw Data	107.9
Khat	168.9
Theta hat	8.131
Kstar	149.4

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Theta star	9.19
Mean of Log Transformed Data	7.222
Standard Deviation of Log Transformed Data	0.0786
Normal GOF Test Results	
Correlation Coefficient R	0.9
Shapiro Wilk Test Statistic	0.84
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	6.8818E-4
Lilliefors Test Statistic	0.286
Lilliefors Critical (0.05) Value	0.17
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.904
A-D Test Statistic	1.974
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.275
K-S Critical(0.05) Value	0.171
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.903
Shapiro Wilk Test Statistic	0.845
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	8.7267E-4
Lilliefors Test Statistic	0.273
Lilliefors Critical (0.05) Value	0.17
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-54)	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	2
Number of Distinct Observations	4
Minimum	1.2
Maximum	1.8
Mean of Raw Data	1.37
Standard Deviation of Raw Data	0.107
Khat	186.9
Theta hat	0.00733
Kstar	166.2
Theta star	0.00825
Mean of Log Transformed Data	0.312
Standard Deviation of Log Transformed Data	0.0731
Normal GOF Test Results	
Correlation Coefficient R	0.795
Shapiro Wilk Test Statistic	0.667
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	2.6490E-7
Lilliefors Test Statistic	0.354
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.805
A-D Test Statistic	2.996
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.338
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.823
Shapiro Wilk Test Statistic	0.71
Shapiro Wilk Critical (0.05) Value	0.923

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Approximate Shapiro Wilk P Value	1.4576E-6
Lilliefors Test Statistic	0.334
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-59)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	2
Number of Distinct Observations	4
Minimum	1.3
Maximum	1.8
Mean of Raw Data	1.4
Standard Deviation of Raw Data	0.098
Khat	235
Theta hat	0.00596
Kstar	208
Theta star	0.00673
Mean of Log Transformed Data	0.334
Standard Deviation of Log Transformed Data	0.065
Normal GOF Test Results	
Correlation Coefficient R	0.773
Shapiro Wilk Test Statistic	0.625
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	8.8493E-8
Lilliefors Test Statistic	0.385
Lilliefors Critical (0.05) Value	0.17
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.787

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Goodness of Fit Statistics

Number of Valid Observations	26
A-D Test Statistic	3.38
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.376
K-S Critical(0.05) Value	0.171
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.798
Shapiro Wilk Test Statistic	0.662
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	3.3808E-7
Lilliefors Test Statistic	0.372
Lilliefors Critical (0.05) Value	0.17
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-60)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	3
Number of Distinct Observations	4
Minimum	1.3
Maximum	1.7
Mean of Raw Data	1.448
Standard Deviation of Raw Data	0.0753
Khat	397.3
Theta hat	0.00364
Kstar	353.2
Theta star	0.0041
Mean of Log Transformed Data	0.369
Standard Deviation of Log Transformed Data	0.0507
Normal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Correlation Coefficient R	0.86
Shapiro Wilk Test Statistic	0.766
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	1.6105E-5
Lilliefors Test Statistic	0.294
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.867
A-D Test Statistic	2.739
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.299
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.868
Shapiro Wilk Test Statistic	0.78
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	3.0129E-5
Lilliefors Test Statistic	0.295
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Fluoride (m-61)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	2
Number of Distinct Observations	4
Minimum	1.3
Maximum	1.6

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Goodness of Fit Statistics

Number of Valid Observations	26
Mean of Raw Data	1.426
Standard Deviation of Raw Data	0.0764
Khat	361.2
Theta hat	0.00395
Kstar	321.1
Theta star	0.00444
Mean of Log Transformed Data	0.353
Standard Deviation of Log Transformed Data	0.0537
Normal GOF Test Results	
Correlation Coefficient R	0.925
Shapiro Wilk Test Statistic	0.855
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.00117
Lilliefors Test Statistic	0.262
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.926
A-D Test Statistic	1.978
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.259
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.925
Shapiro Wilk Test Statistic	0.854
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	0.0011
Lilliefors Test Statistic	0.254
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Data do not follow a discernible distribution at (0.05) Level of Significance	
pH (m-54)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	3
Number of Distinct Observations	8
Minimum	7.3
Maximum	7.8
Mean of Raw Data	7.577
Standard Deviation of Raw Data	0.133
Khat	3338
Theta hat	0.00227
Kstar	2953
Theta star	0.00257
Mean of Log Transformed Data	2.025
Standard Deviation of Log Transformed Data	0.0177
Normal GOF Test Results	
Correlation Coefficient R	0.973
Shapiro Wilk Test Statistic	0.939
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.139
Lilliefors Test Statistic	0.184
Lilliefors Critical (0.05) Value	0.17
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.972
A-D Test Statistic	0.698
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.187
K-S Critical(0.05) Value	0.171
Data follow Appr. Gamma Distribution at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Lognormal GOF Test Results	
Correlation Coefficient R	0.972
Shapiro Wilk Test Statistic	0.938
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.129
Lilliefors Test Statistic	0.187
Lilliefors Critical (0.05) Value	0.17
Data appear Approximate_Lognormal at (0.05) Significance Level	
pH (m-59)	
Raw Statistics	
Number of Valid Observations	26
Number of Missing Observations	2
Number of Distinct Observations	8
Minimum	7.5
Maximum	8.1
Mean of Raw Data	7.688
Standard Deviation of Raw Data	0.145
Khat	2973
Theta hat	0.00259
Kstar	2630
Theta star	0.00292
Mean of Log Transformed Data	2.04
Standard Deviation of Log Transformed Data	0.0187
Normal GOF Test Results	
Correlation Coefficient R	0.954
Shapiro Wilk Test Statistic	0.912
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.0306
Lilliefors Test Statistic	0.191
Lilliefors Critical (0.05) Value	0.17
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Correlation Coefficient R	0.956
A-D Test Statistic	0.793
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.202
K-S Critical(0.05) Value	0.171
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.957
Shapiro Wilk Test Statistic	0.916
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.0384
Lilliefors Test Statistic	0.191
Lilliefors Critical (0.05) Value	0.17
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
pH (m-60)	
Raw Statistics	
Number of Valid Observations	25
Number of Missing Observations	5
Number of Distinct Observations	7
Minimum	7.5
Maximum	8
Mean of Raw Data	7.676
Standard Deviation of Raw Data	0.126
Khat	3877
Theta hat	0.00198
Kstar	3412
Theta star	0.00225
Mean of Log Transformed Data	2.038
Standard Deviation of Log Transformed Data	0.0164
Normal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Correlation Coefficient R	0.962
Shapiro Wilk Test Statistic	0.923
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.0635
Lilliefors Test Statistic	0.166
Lilliefors Critical (0.05) Value	0.173
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.962
A-D Test Statistic	0.774
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.182
K-S Critical(0.05) Value	0.174
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.963
Shapiro Wilk Test Statistic	0.925
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.0692
Lilliefors Test Statistic	0.165
Lilliefors Critical (0.05) Value	0.173
Data appear Lognormal at (0.05) Significance Level	
pH (m-61)	
Raw Statistics	
Number of Valid Observations	25
Number of Missing Observations	4
Number of Distinct Observations	8
Minimum	7.22
Maximum	8
Mean of Raw Data	7.668
Standard Deviation of Raw Data	0.16
Khat	2363

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Theta hat	0.00325
Kstar	2079
Theta star	0.00369
Mean of Log Transformed Data	2.037
Standard Deviation of Log Transformed Data	0.021
Normal GOF Test Results	
Correlation Coefficient R	0.963
Shapiro Wilk Test Statistic	0.942
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.172
Lilliefors Test Statistic	0.138
Lilliefors Critical (0.05) Value	0.173
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.964
A-D Test Statistic	0.611
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.142
K-S Critical(0.05) Value	0.174
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.96
Shapiro Wilk Test Statistic	0.937
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.137
Lilliefors Test Statistic	0.141
Lilliefors Critical (0.05) Value	0.173
Data appear Lognormal at (0.05) Significance Level	

Sulfate (m-54)

	Num Obs	Num Miss	Num Valid	Detects	NDs	% NDs
Raw Statistics	29	1	28	27	1	3.57%

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26					
	Number	Minimum	Maximum	Mean	Median	SD
Statistics (Non-Detects Only)	1	400	400	400	400	N/A
Statistics (Non-Detects Only)	27	340	420	368.1	360	20.39
Statistics (All: NDs treated as DL value)	28	340	420	369.3	365	20.89
Statistics (All: NDs treated as DL/2 value)	28	200	420	362.1	360	37.55
Statistics (Normal ROS Imputed Data)	28	340	420	368	362.5	20.02
Statistics (Gamma ROS Imputed Data)	28	340	420	368	362.4	20.02
Statistics (Lognormal ROS Imputed Data)	28	340	420	368	362.3	20.02
	K hat	K Star	Theta hat	Log Mean	Log Stdv	Log CV
Statistics (Non-Detects Only)	352.2	313.1	1.045	5.907	0.0538	0.00911
Statistics (NDs = DL)	335.4	299.5	1.101	5.91	0.0552	0.00933
Statistics (NDs = DL/2)	74.63	66.66	4.853	5.885	0.127	0.0215
Statistics (Gamma ROS Estimates)	364.8	325.7	1.009	5.907	0.0528	0.00894
Statistics (Lognormal ROS Estimates)	--	--	--	5.907	0.0528	0.00894
Normal GOF Test Results						
	No NDs	NDs = DL	NDs = DL/2	Normal ROS		
Correlation Coefficient R	0.93	0.94	0.802	0.929		
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)			
Shapiro-Wilk (Detects Only)	0.863	0.923	Data Not Normal			
Shapiro-Wilk (NDs = DL)	0.879	0.924	Data Not Normal			
Shapiro-Wilk (NDs = DL/2)	0.682	0.924	Data Not Normal			
Shapiro-Wilk (Normal ROS Estimates)	0.863	0.924	Data Not Normal			
Lilliefors (Detects Only)	0.205	0.167	Data Not Normal			
Lilliefors (NDs = DL)	0.201	0.164	Data Not Normal			
Lilliefors (NDs = DL/2)	0.302	0.164	Data Not Normal			
Lilliefors (Normal ROS Estimates)	0.211	0.164	Data Not Normal			
Gamma GOF Test Results						
	No NDs	NDs = DL	NDs = DL/2	Gamma ROS		
Correlation Coefficient R	0.937	0.946	0.795	0.936		
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)			
Anderson-Darling (Detects Only)	1.167	0.744				

Appendix B
Goodness of Fit Statistics

Number of Valid Observations		26						
Kolmogorov-Smirnov (Detects Only)	0.196	0.168	Data Not Gamma Distributed					
Anderson-Darling (NDs = DL)	1.108	0.743						
Kolmogorov-Smirnov (NDs = DL)	0.193	0.165	Data Not Gamma Distributed					
Anderson-Darling (NDs = DL/2)	3.185	0.743						
Kolmogorov-Smirnov (NDs = DL/2)	0.328	0.165	Data Not Gamma Distributed					
Anderson-Darling (Gamma ROS Estimates)	1.188	0.743						
Kolmogorov-Smirnov (Gamma ROS Est.)	0.202	0.165	Data Not Gamma Distributed					
Lognormal GOF Test Results								
	No NDs	NDs = DL	NDs = DL/2	Log ROS				
Correlation Coefficient R	0.939	0.948	0.731	0.938				
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)					
Shapiro-Wilk (Detects Only)	0.879	0.923	Data Not Lognormal					
Shapiro-Wilk (NDs = DL)	0.893	0.924	Data Not Lognormal					
Shapiro-Wilk (NDs = DL/2)	0.574	0.924	Data Not Lognormal					
Shapiro-Wilk (Lognormal ROS Estimates)	0.879	0.924	Data Not Lognormal					
Lilliefors (Detects Only)	0.193	0.167	Data Not Lognormal					
Lilliefors (NDs = DL)	0.19	0.164	Data Not Lognormal					
Lilliefors (NDs = DL/2)	0.343	0.164	Data Not Lognormal					
Lilliefors (Lognormal ROS Estimates)	0.199	0.164	Data Not Lognormal					
Note: Substitution methods such as DL or DL/2 are not recommended.								
Sulfate (m-59)								
Raw Statistics								
Number of Valid Observations	27							
Number of Missing Observations	1							
Number of Distinct Observations	7							
Minimum	320							
Maximum	400							
Mean of Raw Data	349.6							
Standard Deviation of Raw Data	14.8							
Khat	595.5							
Theta hat	0.587							
Kstar	529.4							
Theta star	0.66							

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26							
Mean of Log Transformed Data	5.856							
Standard Deviation of Log Transformed Data	0.0415							
Normal GOF Test Results								
Correlation Coefficient R	0.919							
Shapiro Wilk Test Statistic	0.872							
Shapiro Wilk Critical (0.05) Value	0.923							
Approximate Shapiro Wilk P Value	0.00284							
Lilliefors Test Statistic	0.231							
Lilliefors Critical (0.05) Value	0.167							
Data not Normal at (0.05) Significance Level								
Gamma GOF Test Results								
Correlation Coefficient R	0.926							
A-D Test Statistic	1.207							
A-D Critical (0.05) Value	0.744							
K-S Test Statistic	0.225							
K-S Critical(0.05) Value	0.168							
Data not Gamma Distributed at (0.05) Significance Level								
Lognormal GOF Test Results								
Correlation Coefficient R	0.929							
Shapiro Wilk Test Statistic	0.888							
Shapiro Wilk Critical (0.05) Value	0.923							
Approximate Shapiro Wilk P Value	0.00695							
Lilliefors Test Statistic	0.222							
Lilliefors Critical (0.05) Value	0.167							
Data not Lognormal at (0.05) Significance Level								
Non-parametric GOF Test Results								
Data do not follow a discernible distribution at (0.05) Level of Significance								
Sulfate (m-60)								
	Num Obs	Num Miss	Num Valid	Detects	NDs	% NDs		

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26					
Raw Statistics	30	2	28	27	1	3.57%
	Number	Minimum	Maximum	Mean	Median	SD
Statistics (Non-Detects Only)	1	400	400	400	400	N/A
Statistics (Non-Detects Only)	27	340	450	363.7	360	26.77
Statistics (All: NDs treated as DL value)	28	340	450	365	360	27.15
Statistics (All: NDs treated as DL/2 value)	28	200	450	357.9	355	40.58
Statistics (Normal ROS Imputed Data)	28	340	450	363.6	360	26.28
Statistics (Gamma ROS Imputed Data)	28	340	450	363.6	359.8	26.28
Statistics (Lognormal ROS Imputed Data)	28	340	450	363.6	359.7	26.28
	K hat	K Star	Theta hat	Log Mean	Log Stdv	Log CV
Statistics (Non-Detects Only)	210.8	187.4	1.726	5.894	0.0686	0.0116
Statistics (NDs = DL)	204.3	182.4	1.787	5.897	0.0698	0.0118
Statistics (NDs = DL/2)	67.36	60.16	5.313	5.873	0.131	0.0223
Statistics (Gamma ROS Estimates)	218.4	195	1.665	5.894	0.0674	0.0114
Statistics (Lognormal ROS Estimates)	--	--	--	5.894	0.0674	0.0114
Normal GOF Test Results						
	No NDs	NDs = DL	NDs = DL/2	Normal ROS		
Correlation Coefficient R	0.824	0.848	0.807	0.82		
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)			
Shapiro-Wilk (Detects Only)	0.688	0.923	Data Not Normal			
Shapiro-Wilk (NDs = DL)	0.726	0.924	Data Not Normal			
Shapiro-Wilk (NDs = DL/2)	0.694	0.924	Data Not Normal			
Shapiro-Wilk (Normal ROS Estimates)	0.684	0.924	Data Not Normal			
Lilliefors (Detects Only)	0.296	0.167	Data Not Normal			
Lilliefors (NDs = DL)	0.287	0.164	Data Not Normal			
Lilliefors (NDs = DL/2)	0.294	0.164	Data Not Normal			
Lilliefors (Normal ROS Estimates)	0.302	0.164	Data Not Normal			
Gamma GOF Test Results						
	No NDs	NDs = DL	NDs = DL/2	Gamma ROS		
Correlation Coefficient R	0.84	0.864	0.81	0.836		
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)			

Appendix B
Goodness of Fit Statistics

Number of Valid Observations		26						
Anderson-Darling (Detects Only)	2.876	0.744						
Kolmogorov-Smirnov (Detects Only)	0.291	0.168	Data Not Gamma Distributed					
Anderson-Darling (NDs = DL)	2.65	0.743						
Kolmogorov-Smirnov (NDs = DL)	0.283	0.165	Data Not Gamma Distributed					
Anderson-Darling (NDs = DL/2)	3.636	0.743						
Kolmogorov-Smirnov (NDs = DL/2)	0.318	0.165	Data Not Gamma Distributed					
Anderson-Darling (Gamma ROS Estimates)	3	0.743						
Kolmogorov-Smirnov (Gamma ROS Est.)	0.299	0.165	Data Not Gamma Distributed					
Lognormal GOF Test Results								
	No NDs	NDs = DL	NDs = DL/2	Log ROS				
Correlation Coefficient R	0.842	0.865	0.751	0.839				
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)					
Shapiro-Wilk (Detects Only)	0.717	0.923	Data Not Lognormal					
Shapiro-Wilk (NDs = DL)	0.753	0.924	Data Not Lognormal					
Shapiro-Wilk (NDs = DL/2)	0.609	0.924	Data Not Lognormal					
Shapiro-Wilk (Lognormal ROS Estimates)	0.713	0.924	Data Not Lognormal					
Lilliefors (Detects Only)	0.286	0.167	Data Not Lognormal					
Lilliefors (NDs = DL)	0.279	0.164	Data Not Lognormal					
Lilliefors (NDs = DL/2)	0.334	0.164	Data Not Lognormal					
Lilliefors (Lognormal ROS Estimates)	0.294	0.164	Data Not Lognormal					
Note: Substitution methods such as DL or DL/2 are not recommended.								
Sulfate (m-61)								
	Num Obs	Num Miss	Num Valid	Detects	NDs	% NDs		
Raw Statistics	29	2	27	26	1	3.70%		
	Number	Minimum	Maximum	Mean	Median	SD		
Statistics (Non-Detects Only)	1	400	400	400	400	N/A		
Statistics (Non-Detects Only)	26	340	420	361.2	360	19.04		
Statistics (All: NDs treated as DL value)	27	340	420	362.6	360	20.11		
Statistics (All: NDs treated as DL/2 value)	27	200	420	355.2	360	36.2		
Statistics (Normal ROS Imputed Data)	27	340	420	361.1	360	18.68		
Statistics (Gamma ROS Imputed Data)	27	340	420	361.1	360	18.68		
Statistics (Lognormal ROS Imputed Data)	27	340	420	361.1	360	18.68		

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26					
	K hat	K Star	Theta hat	Log Mean	Log Stdv	Log CV
Statistics (Non-Detects Only)	391.6	346.4	0.922	5.888	0.051	0.00866
Statistics (NDs = DL)	351.7	312.7	1.031	5.892	0.0538	0.00913
Statistics (NDs = DL/2)	77.64	69.04	4.575	5.866	0.124	0.0211
Statistics (Gamma ROS Estimates)	406.4	361.3	0.888	5.888	0.05	0.00849
Statistics (Lognormal ROS Estimates)	--	--	--	5.888	0.05	0.00849
Normal GOF Test Results						
	No NDs	NDs = DL	NDs = DL/2	Normal ROS		
Correlation Coefficient R	0.914	0.924	0.788	0.911		
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)			
Shapiro-Wilk (Detects Only)	0.841	0.92	Data Not Normal			
Shapiro-Wilk (NDs = DL)	0.854	0.923	Data Not Normal			
Shapiro-Wilk (NDs = DL/2)	0.664	0.923	Data Not Normal			
Shapiro-Wilk (Normal ROS Estimates)	0.838	0.923	Data Not Normal			
Lilliefors (Detects Only)	0.255	0.17	Data Not Normal			
Lilliefors (NDs = DL)	0.255	0.167	Data Not Normal			
Lilliefors (NDs = DL/2)	0.3	0.167	Data Not Normal			
Lilliefors (Normal ROS Estimates)	0.264	0.167	Data Not Normal			
Gamma GOF Test Results						
	No NDs	NDs = DL	NDs = DL/2	Gamma ROS		
Correlation Coefficient R	0.923	0.932	0.783	0.92		
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)			
Anderson-Darling (Detects Only)	1.311	0.742				
Kolmogorov-Smirnov (Detects Only)	0.249	0.171	Data Not Gamma Distributed			
Anderson-Darling (NDs = DL)	1.364	0.744				
Kolmogorov-Smirnov (NDs = DL)	0.25	0.168	Data Not Gamma Distributed			
Anderson-Darling (NDs = DL/2)	3.424	0.744				
Kolmogorov-Smirnov (NDs = DL/2)	0.328	0.168	Data Not Gamma Distributed			
Anderson-Darling (Gamma ROS Estimates)	1.39	0.744				
Kolmogorov-Smirnov (Gamma ROS Est.)	0.258	0.168	Data Not Gamma Distributed			
Lognormal GOF Test Results						

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26						
	No NDs	NDs = DL	NDs = DL/2	Log ROS			
Correlation Coefficient R	0.925	0.933	0.721	0.922			
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)				
Shapiro-Wilk (Detects Only)	0.859	0.92	Data Not Lognormal				
Shapiro-Wilk (NDs = DL)	0.869	0.923	Data Not Lognormal				
Shapiro-Wilk (NDs = DL/2)	0.561	0.923	Data Not Lognormal				
Shapiro-Wilk (Lognormal ROS Estimates)	0.856	0.923	Data Not Lognormal				
Lilliefors (Detects Only)	0.246	0.17	Data Not Lognormal				
Lilliefors (NDs = DL)	0.246	0.167	Data Not Lognormal				
Lilliefors (NDs = DL/2)	0.345	0.167	Data Not Lognormal				
Lilliefors (Lognormal ROS Estimates)	0.254	0.167	Data Not Lognormal				
Note: Substitution methods such as DL or DL/2 are not recommended.							
TDS (m-54)							
Raw Statistics							
Number of Valid Observations	28						
Number of Missing Observations	1						
Number of Distinct Observations	7						
Minimum	2300						
Maximum	3300						
Mean of Raw Data	3014						
Standard Deviation of Raw Data	188						
Khat	242.1						
Theta hat	12.45						
Kstar	216.2						
Theta star	13.95						
Mean of Log Transformed Data	8.009						
Standard Deviation of Log Transformed Data	0.0672						
Normal GOF Test Results							
Correlation Coefficient R	0.878						
Shapiro Wilk Test Statistic	0.797						
Shapiro Wilk Critical (0.05) Value	0.924						
Approximate Shapiro Wilk P Value	4.8669E-5						

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Lilliefors Test Statistic	0.211
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.872
A-D Test Statistic	1.915
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.213
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.851
Shapiro Wilk Test Statistic	0.753
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	6.1443E-6
Lilliefors Test Statistic	0.222
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
TDS (m-59)	
Raw Statistics	
Number of Valid Observations	27
Number of Missing Observations	1
Number of Distinct Observations	6
Minimum	2300
Maximum	2900
Mean of Raw Data	2715
Standard Deviation of Raw Data	126.2
Khat	457.5
Theta hat	5.935

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Kstar	406.7
Theta star	6.676
Mean of Log Transformed Data	7.905
Standard Deviation of Log Transformed Data	0.0483
Normal GOF Test Results	
Correlation Coefficient R	0.896
Shapiro Wilk Test Statistic	0.819
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	1.8530E-4
Lilliefors Test Statistic	0.305
Lilliefors Critical (0.05) Value	0.167
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.893
A-D Test Statistic	2.022
A-D Critical (0.05) Value	0.744
K-S Test Statistic	0.311
K-S Critical(0.05) Value	0.168
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.884
Shapiro Wilk Test Statistic	0.799
Shapiro Wilk Critical (0.05) Value	0.923
Approximate Shapiro Wilk P Value	7.0044E-5
Lilliefors Test Statistic	0.316
Lilliefors Critical (0.05) Value	0.167
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
TDS (m-60)	

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26					
	Num Obs	Num Miss	Num Valid	Detects	NDs	% NDs
Raw Statistics	30	1	29	28	1	3.45%
	Number	Minimum	Maximum	Mean	Median	SD
Statistics (Non-Detects Only)	1	2700	2700	2700	2700	N/A
Statistics (Non-Detects Only)	28	2200	4200	2871	2800	356.8
Statistics (All: NDs treated as DL value)	29	2200	4200	2866	2800	351.8
Statistics (All: NDs treated as DL/2 value)	29	1350	4200	2819	2800	450.1
Statistics (Normal ROS Imputed Data)	29	2200	4200	2855	2800	361
Statistics (Gamma ROS Imputed Data)	29	2200	4200	2856	2800	360.6
Statistics (Lognormal ROS Imputed Data)	29	2200	4200	2857	2800	359.2
	K hat	K Star	Theta hat	Log Mean	Log Stdv	Log CV
Statistics (Non-Detects Only)	77.44	69.16	37.08	7.956	0.112	0.0141
Statistics (NDs = DL)	79.41	71.22	36.08	7.954	0.111	0.0139
Statistics (NDs = DL/2)	36.31	32.58	77.63	7.93	0.177	0.0224
Statistics (Gamma ROS Estimates)	74.51	66.83	38.32	7.95	0.115	0.0144
Statistics (Lognormal ROS Estimates)	--	--	--	7.951	0.114	0.0143
Normal GOF Test Results						
	No NDs	NDs = DL	NDs = DL/2	Normal ROS		
Correlation Coefficient R	0.784	0.784	0.812	0.805		
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)			
Shapiro-Wilk (Detects Only)	0.649	0.924	Data Not Normal			
Shapiro-Wilk (NDs = DL)	0.65	0.926	Data Not Normal			
Shapiro-Wilk (NDs = DL/2)	0.706	0.926	Data Not Normal			
Shapiro-Wilk (Normal ROS Estimates)	0.681	0.926	Data Not Normal			
Lilliefors (Detects Only)	0.361	0.164	Data Not Normal			
Lilliefors (NDs = DL)	0.358	0.161	Data Not Normal			
Lilliefors (NDs = DL/2)	0.325	0.161	Data Not Normal			
Lilliefors (Normal ROS Estimates)	0.347	0.161	Data Not Normal			
Gamma GOF Test Results						
	No NDs	NDs = DL	NDs = DL/2	Gamma ROS		
Correlation Coefficient R	0.804	0.804	0.819	0.823		

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26						
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)				
Anderson-Darling (Detects Only)	3.784	0.743					
Kolmogorov-Smirnov (Detects Only)	0.343	0.165	Data Not Gamma Distributed				
Anderson-Darling (NDs = DL)	3.818	0.743					
Kolmogorov-Smirnov (NDs = DL)	0.339	0.162	Data Not Gamma Distributed				
Anderson-Darling (NDs = DL/2)	4.074	0.744					
Kolmogorov-Smirnov (NDs = DL/2)	0.307	0.162	Data Not Gamma Distributed				
Anderson-Darling (Gamma ROS Estimates)	3.446	0.743					
Kolmogorov-Smirnov (Gamma ROS Est.)	0.328	0.162	Data Not Gamma Distributed				
Lognormal GOF Test Results							
	No NDs	NDs = DL	NDs = DL/2	Log ROS			
Correlation Coefficient R	0.818	0.819	0.779	0.839			
	Test value	Crit. (0.05)	Conclusion with Alpha(0.05)				
Shapiro-Wilk (Detects Only)	0.706	0.924	Data Not Lognormal				
Shapiro-Wilk (NDs = DL)	0.709	0.926	Data Not Lognormal				
Shapiro-Wilk (NDs = DL/2)	0.653	0.926	Data Not Lognormal				
Shapiro-Wilk (Lognormal ROS Estimates)	0.738	0.926	Data Not Lognormal				
Lilliefors (Detects Only)	0.335	0.164	Data Not Lognormal				
Lilliefors (NDs = DL)	0.331	0.161	Data Not Lognormal				
Lilliefors (NDs = DL/2)	0.309	0.161	Data Not Lognormal				
Lilliefors (Lognormal ROS Estimates)	0.321	0.161	Data Not Lognormal				
Note: Substitution methods such as DL or DL/2 are not recommended.							
TDS (m-61)							
Raw Statistics							
Number of Valid Observations	28						
Number of Missing Observations	1						
Number of Distinct Observations	8						
Minimum	2300						
Maximum	3800						
Mean of Raw Data	2854						
Standard Deviation of Raw Data	244.2						
Khat	152.7						

Appendix B
Goodness of Fit Statistics

Number of Valid Observations	26
Theta hat	18.69
Kstar	136.4
Theta star	20.93
Mean of Log Transformed Data	7.953
Standard Deviation of Log Transformed Data	0.0812
Normal GOF Test Results	
Correlation Coefficient R	0.861
Shapiro Wilk Test Statistic	0.783
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	2.5097E-5
Lilliefors Test Statistic	0.246
Lilliefors Critical (0.05) Value	0.164
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.874
A-D Test Statistic	1.828
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.232
K-S Critical(0.05) Value	0.165
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.885
Shapiro Wilk Test Statistic	0.825
Shapiro Wilk Critical (0.05) Value	0.924
Approximate Shapiro Wilk P Value	1.9327E-4
Lilliefors Test Statistic	0.227
Lilliefors Critical (0.05) Value	0.164
Data not Lognormal at (0.05) Significance Level	
Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	

Appendix B
Outlier Statistics

	Outlier Tests for Selected Uncensored Variables
User Selected Options	
Date/Time of Computation	ProUCL 5.13/11/2024 2:15:15 PM
From File	20240308_Cholla_BAM_ProUCL_Upload.xls
Full Precision	OFF

Rosner's Outlier Test for Boron (m-54)

Mean	**0.517**
Standard Deviation	**0.019**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.517	0.0186	0.56	12	2.337	2.84	3.16

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Boron (m-59)

Mean	**0.497**
Standard Deviation	**0.0144**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.497	0.0141	0.53	12	2.369	2.84	3.16

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Appendix B
Outlier Statistics

Standard Deviation	**0.019**

Rosner's Outlier Test for Boron (m-60)

Mean	**0.507**
Standard Deviation	**0.0173**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.507	0.017	0.54	1	1.923	2.84	3.16

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Boron (m-61)

Mean	**0.498**
Standard Deviation	**0.0136**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.498	0.0133	0.53	26	2.399	2.84	3.16

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Calcium (m-54)

Mean	**98.62**

Appendix B
Outlier Statistics

Standard Deviation	**0.019**									
Standard Deviation	**3.312**									
Number of data	**26**									
Number of suspected outliers	**1**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	98.62	3.247	110	4	3.506	2.84	3.16			
For 5% Significance Level, there is 1 Potential Outlier										
Potential outliers is: 110										
For 1% Significance Level, there is 1 Potential Outlier										
Potential outliers is: 110										
Rosner's Outlier Test for Calcium (m-59)										
Mean	**87.38**									
Standard Deviation	**3.138**									
Number of data	**26**									
Number of suspected outliers	**1**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	87.38	3.077	79	24	2.725	2.84	3.16			
For 5% Significance Level, there is no Potential Outlier										
For 1% Significance Level, there is no Potential Outlier										
Rosner's Outlier Test for Calcium (m-60)										
Mean	**86.46**									
Standard Deviation	**3.252**									
Number of data	**26**									
Number of suspected outliers	**1**									

Appendix B
Outlier Statistics

Standard Deviation	**0.019**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	86.46	3.189	79	25	2.34	2.84	3.16			
For 5% Significance Level, there is no Potential Outlier										
For 1% Significance Level, there is no Potential Outlier										
Rosner's Outlier Test for Calcium (m-61)										
Mean	**90.15**									
Standard Deviation	**2.664**									
Number of data	**26**									
Number of suspected outliers	**1**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	90.15	2.612	97	25	2.621	2.84	3.16			
For 5% Significance Level, there is no Potential Outlier										
For 1% Significance Level, there is no Potential Outlier										
Rosner's Outlier Test for Chloride (m-54)										
Mean	**1504**									
Standard Deviation	**85.4**									
Number of data	**27**									
Number of suspected outliers	**1**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	1504	83.81	1300	6	2.431	2.86	3.18			

Appendix B
Outlier Statistics

Standard Deviation	**0.019**

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Chloride (m-59)

Mean	**1294**
Standard Deviation	**137.5**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1294	134.8	740	26	4.108	2.84	3.16

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 740

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 740

Rosner's Outlier Test for Chloride (m-60)

Mean	**1370**
Standard Deviation	**66.88**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1370	65.63	1200	19	2.596	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Appendix B
Outlier Statistics

Standard Deviation	**0.019**

Rosner's Outlier Test for Chloride (m-61)

Mean	**1373**
Standard Deviation	**107.9**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1373	105.8	1700	7	3.089	2.84	3.16

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1700

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Fluoride (m-54)

Mean	**1.37**
Standard Deviation	**0.107**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1.37	0.105	1.8	19	4.101	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1.8

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1.8

Appendix B
Outlier Statistics

Standard Deviation	**0.019**										
Rosner's Outlier Test for Fluoride (m-59)											
Mean	**1.4**										
Standard Deviation	**0.098**										
Number of data	**26**										
Number of suspected outliers	**1**										
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	1.4	0.0961	1.8	19	4.163	2.84	3.16				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 1.8											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 1.8											
Rosner's Outlier Test for Fluoride (m-60)											
Mean	**1.448**										
Standard Deviation	**0.0753**										
Number of data	**27**										
Number of suspected outliers	**1**										
			Potential	Obs.	Test	Critical	Critical				
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
1	1.448	0.0739	1.7	19	3.409	2.86	3.18				
For 5% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 1.7											
For 1% Significance Level, there is 1 Potential Outlier											
Potential outliers is: 1.7											
Rosner's Outlier Test for Fluoride (m-61)											

Appendix B
Outlier Statistics

Standard Deviation	**0.019**

Mean	**1.426**
Standard Deviation	**0.0764**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1.426	0.075	1.6	20	2.321	2.86	3.18

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for pH (m-54)

Mean	**7.577**
Standard Deviation	**0.133**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	7.577	0.131	7.3	19	2.116	2.84	3.16

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for pH (m-59)

Mean	**7.688**
Standard Deviation	**0.145**
Number of data	**26**

Appendix B
Outlier Statistics

Standard Deviation	**0.019**									
Number of suspected outliers	**1**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	7.688	0.142	8.1	6	2.903	2.84	3.16			
For 5% Significance Level, there is 1 Potential Outlier										
Potential outliers is: 8.1										
For 1% Significance Level, there is no Potential Outlier										
Rosner's Outlier Test for pH (m-60)										
Mean	**7.676**									
Standard Deviation	**0.126**									
Number of data	**25**									
Number of suspected outliers	**1**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	7.676	0.124	8	6	2.626	2.82	3.14			
For 5% Significance Level, there is no Potential Outlier										
For 1% Significance Level, there is no Potential Outlier										
Rosner's Outlier Test for pH (m-61)										
Mean	**7.668**									
Standard Deviation	**0.16**									
Number of data	**25**									
Number of suspected outliers	**1**									
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			

Appendix B
Outlier Statistics

		Standard Deviation	**0.019**							
1	7.668	0.157	7.22	1	2.853	2.82	3.14			
For 5% Significance Level, there is 1 Potential Outlier										
Potential outliers is: 7.22										
For 1% Significance Level, there is no Potential Outlier										
Rosner's Outlier Test for Sulfate (m-54)										
		Mean	**369.3**							
		Standard Deviation	**20.89**							
		Number of data	**28**							
		Number of suspected outliers	**1**							
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	369.3	20.52	420	21	2.472	2.88	3.2			
For 5% Significance Level, there is no Potential Outlier										
For 1% Significance Level, there is no Potential Outlier										
Rosner's Outlier Test for Sulfate (m-59)										
		Mean	**349.6**							
		Standard Deviation	**14.8**							
		Number of data	**27**							
		Number of suspected outliers	**1**							
			Potential	Obs.	Test	Critical	Critical			
#	Mean	sd	outlier	Number	value	value (5%)	value (1%)			
1	349.6	14.52	400	22	3.468	2.86	3.18			
For 5% Significance Level, there is 1 Potential Outlier										
Potential outliers is: 400										

Appendix B
Outlier Statistics

Standard Deviation	**0.019**

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 400

Rosner's Outlier Test for Sulfate (m-60)

Mean	**365**
Standard Deviation	**27.15**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	365	26.66	450	22	3.188	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 450

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Sulfate (m-61)

Mean	**362.6**
Standard Deviation	**20.11**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	362.6	19.74	420	7	2.909	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 420

For 1% Significance Level, there is no Potential Outlier

Appendix B
Outlier Statistics

Standard Deviation	**0.019**

Rosner's Outlier Test for TDS (m-54)

Mean	**3014**
Standard Deviation	**188**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	3014	184.6	2300	23	3.869	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 2300

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 2300

Rosner's Outlier Test for TDS (m-59)

Mean	**2715**
Standard Deviation	**126.2**
Number of data	**27**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	2715	123.8	2300	22	3.35	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 2300

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 2300

Appendix B
Outlier Statistics

Standard Deviation	**0.019**

Rosner's Outlier Test for TDS (m-60)

Mean	**2866**
Standard Deviation	**351.8**
Number of data	**29**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	2866	345.7	4200	21	3.86	2.89	3.22

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 4200

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 4200

Rosner's Outlier Test for TDS (m-61)

Mean	**2854**
Standard Deviation	**244.2**
Number of data	**28**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	2854	239.8	3800	24	3.947	2.88	3.2

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 3800

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 3800

APPENDIX

J

PREDICTIVE TRANSPORT MODELING RESULTS FOR COAL COMBUSTION RESIDUALS CONSTITUENTS OF CONCERN TECHNICAL MEMORANDUM

MONTGOMERY & ASSOCIATES
Water Resource Consultants

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FINAL

TECHNICAL MEMORANDUM

DATE: February 14, 2024 **PROJECT #:** 897.1605

TO: Natalie Chrisman-Lazarr, Arizona Public Service

FROM: Leslie Katz, P.G., Alyssa Kirk, and Mekha Pereira

PROJECT: CCR Transport Modeling, Cholla Power Plant, Arizona

SUBJECT: Predictive Transport Modeling Results for Coal Combustion Residuals Constituents of Concern

INTRODUCTION

This Technical Memorandum documents modeling that was conducted to evaluate fate and transport of Coal Combustion Residuals (CCR) constituents of concern (COCs) at the Arizona Public Service (APS) Cholla Power Plant (Cholla). Based on monitoring data, 2 of the CCR Units at Cholla have been identified as requiring evaluation: the Fly Ash Pond (FAP) and the Bottom Ash Pond (BAP). The CCR COCs downgradient of the FAP are lithium, fluoride, arsenic, and molybdenum. Cobalt is the COC downgradient of the BAP.

Developed as an operational tool for Cholla, an existing groundwater flow model was used and refined as needed to achieve CCR project goals. Refinements included the addition of transport capabilities so the model could be used to evaluate migration of COCs in groundwater and implementation of corrective actions. Modeling efforts focused on the Alluvial Aquifer adjacent to and downgradient from the FAP and BAP. The groundwater flow model was calibrated to groundwater levels for the historical period, 1980 through 2021. Post-2021 predictive transport modeling was conducted to evaluate estimated cleanup time of groundwater downgradient from each of the CCR Units for all COCs with and without corrective actions.

REGIONAL SETTING

The Cholla groundwater model domain encompasses a large regional area within the Colorado Plateau province in northern Arizona, as shown on Figure 1. The Colorado Plateau is a semi-arid and relatively flat region. The model extends east to west from Silver Creek to Clear Creek. The southern boundary of the model closely follows the trace of the Holbrook anticline, a regional area of uplift for the Coconino Sandstone. To the north, the model is truncated along a straight

line that is sufficiently distant from Cholla to ensure that the site-specific flow and transport mechanisms of interest are responding to local stresses and are not controlled by the boundary. Elevations within the Study Area range from about 6,100 feet above mean sea level (amsl) at the southeastern border along the Holbrook anticline to about 4,850 feet amsl near Winslow.

Hydrographically, the Study Area includes the drainage areas of the Upper and Middle Little Colorado River (LCR), Puerco River, Leroux Wash, Cottonwood Wash, Chevelon Creek, and Clear Creek watersheds. The most prominent surface water feature in the Study Area is the LCR, which bisects the model area from east to west.

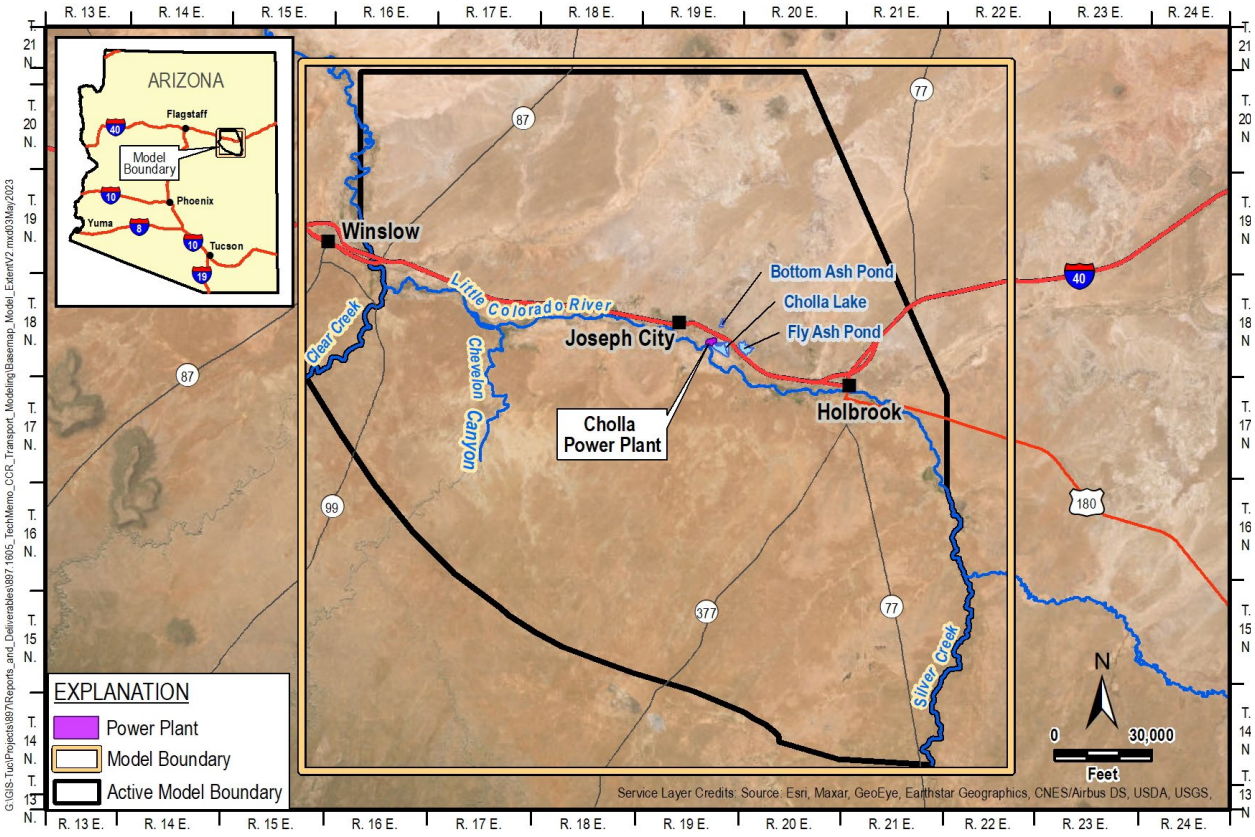

Figure 1. Regional Map and Model Extent

STUDY AREA

Although it was important to utilize a regional model to simulate critical interactions between aquifer units, the focus of this analysis is the area that includes and surrounds the Cholla Power Plant and CCR Units, as depicted by the extent on Figure 2.

More than 100 monitor wells have been installed in the Cholla area, principally to help monitor conditions in the Coconino and Alluvial Aquifers. A subset of these wells was used as the basis for model calibration and review of predictive results and are shown on Figure 2.

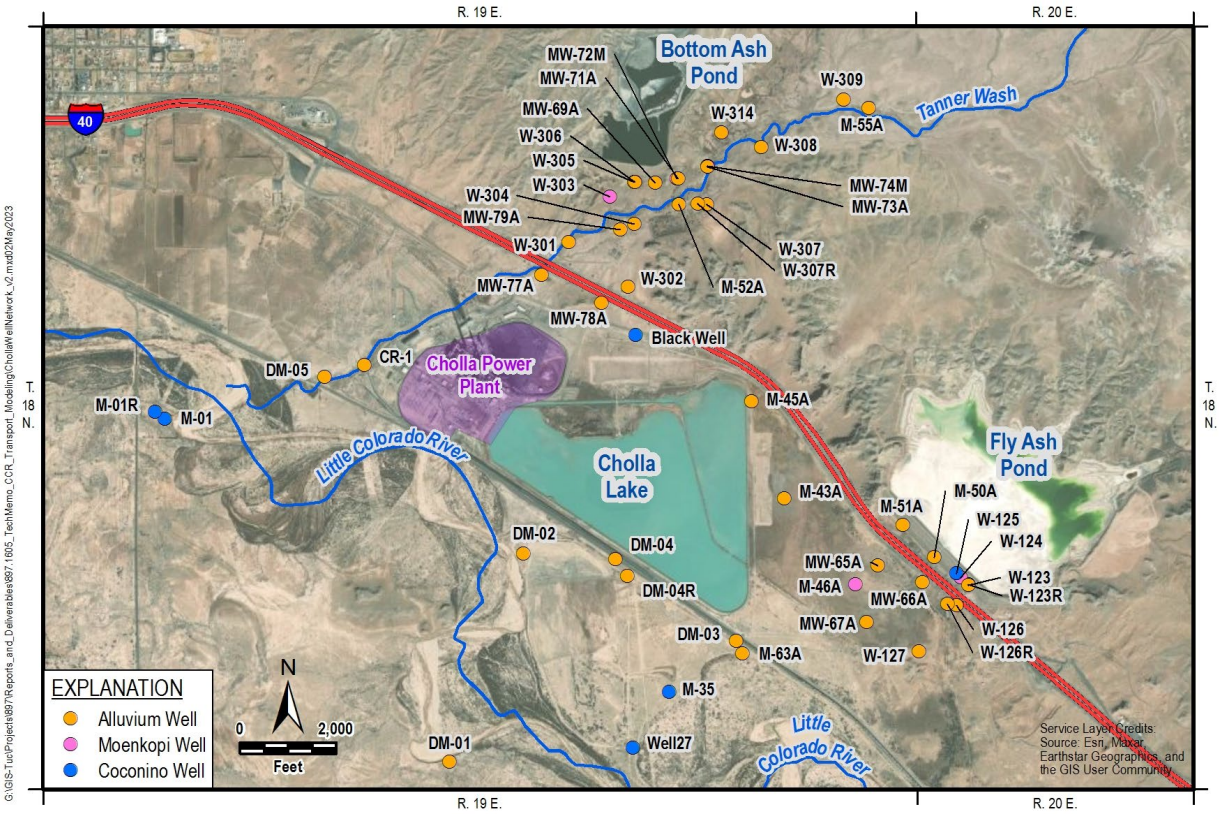

Figure 2. Study Area and Monitoring Well Network Used for Model Evaluation

CONCEPTUAL SITE MODEL

Hydrogeologic Units

The geologic units in the groundwater model in descending order are Floodplain Alluvium, Chinle Formation, Moenkopi Formation, Kaibab Limestone, Coconino Sandstone, Schnebly Hill Formation, and Supai Formation. In the majority of the Study Area, the Kaibab and Chinle are not present; units present in the Study Area are displayed on Figure 3. The principal aquifers are the Alluvial Aquifer and Coconino Aquifer.

The Alluvial Aquifer consists of the LCR Alluvium and Tanner Wash Alluvium. The LCR Alluvium ranges in thickness from zero to about 200 feet, based on well logs for the area. The Tanner Wash Alluvium ranges in thickness from zero to more than 160 feet. These alluvial deposits are not used to a significant extent for water supplies; however, they are important from

ecosystem and water rights standpoints. The areas of interest for this study are the LCR Alluvium near the FAP and the Tanner Wash Alluvium near the BAP. For the remainder of this report, the LCR Alluvium generally refers to the vicinity of the FAP.

The Moenkopi is divided into 3 members, including the upper Holbrook member and the lower Wupatki member, silty sandstones that are each about 50 feet thick, and the middle Moqui member, which is comprised of a gypsum-bearing mudstone of varying thickness. Where the Moqui member is sufficiently thick, it generally acts as a confining bed, hydraulically separating the permeable Coconino Sandstone from overlying units, including the LCR and Tanner Wash Alluvium. The Moenkopi is thin or absent in the area west-southwest from the FAP, which results in a hydraulic connection between the Coconino and the overlying Alluvium in that area.

Cholla withdraws groundwater from the Coconino Sandstone, a highly productive unit within the regional Coconino Aquifer. The Coconino Aquifer is the principal regional aquifer across an approximate 27,000-square mile area in Arizona and New Mexico. The Coconino Aquifer is regionally composed of the following geologic units in descending order: Kaibab Formation, Coconino Sandstone, Schnebly Hill Formation, and Supai Formation.

The CCR transport modeling effort is focused primarily on the Alluvial Aquifer near the ponds, as CCR rules require monitoring and potential corrective actions in the uppermost aquifer impacted by CCR constituents above Groundwater Protection Standards (GWPS). However, simulation of conditions in the Coconino Aquifer is also important to achieve modeling goals since the interconnection between the Coconino and the Alluvium in the area west-southwest from the FAP is critical to the water balance of the LCR Alluvium in the Cholla area. Therefore, the remainder of this memorandum will focus on the Alluvium and Coconino.

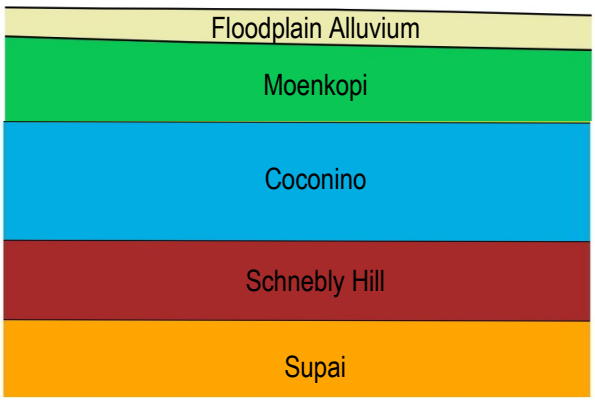

Figure 3. Conceptual Diagram of Geologic Units in Study Area

Movement of Groundwater

Alluvial Aquifer

The Alluvial Aquifer is the uppermost aquifer and is unconfined. Generalized contours of the water table elevation in the Alluvial Aquifer are shown on Figure 4. Flow direction is generally to the west in the LCR Alluvium and southwest along the Tanner Wash Alluvium. Influences of the FAP and BAP on flow patterns immediately adjacent to the ponds is apparent in the contours. Gradients flatten moving away from the ponds, particularly in the LCR Alluvium. Water levels in the LCR Alluvium correlate with Coconino pumping rates in the area south and west of the FAP.

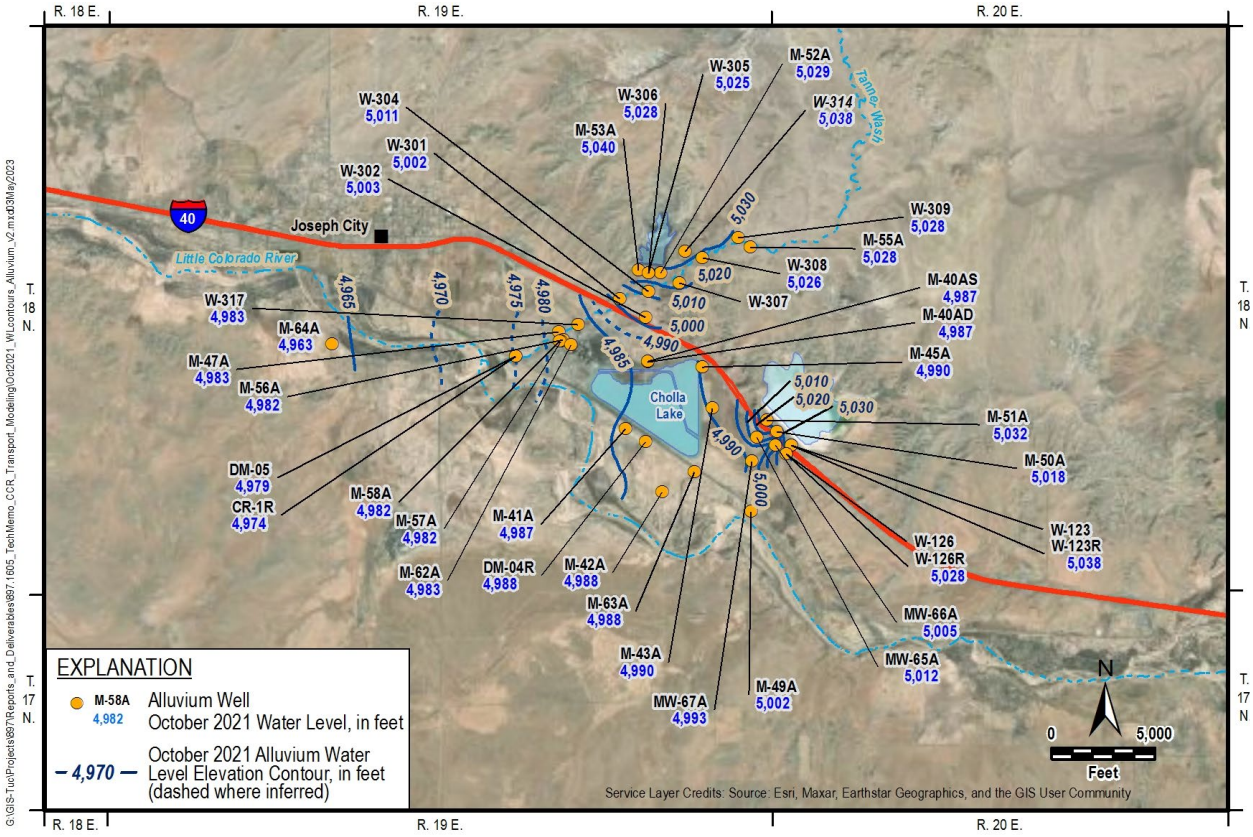

Figure 4. Alluvium Water Level Elevation Contours October 2021

Coconino Aquifer

Pre-development and through the 1970s, prior to substantial pumping in the Study Area, groundwater movement in the Coconino was generally from south to northwest. Pumping has resulted in a localized cone of depression south of Cholla Lake, as depicted by the generalized contours of groundwater elevation shown on Figure 5. Groundwater levels in the Coconino

Aquifer declined through the mid-2000s; however, a recovery trend has been observed since 2015 due to partial decommissioning and associated reductions in pumping. Water level recovery is expected to continue after Cholla closure in 2028, when Coconino pumping will decrease further. The Coconino Aquifer is considered confined in areas where it is overlain by greater than approximately 50 feet of Moenkopi and water levels are above the top of the unit.

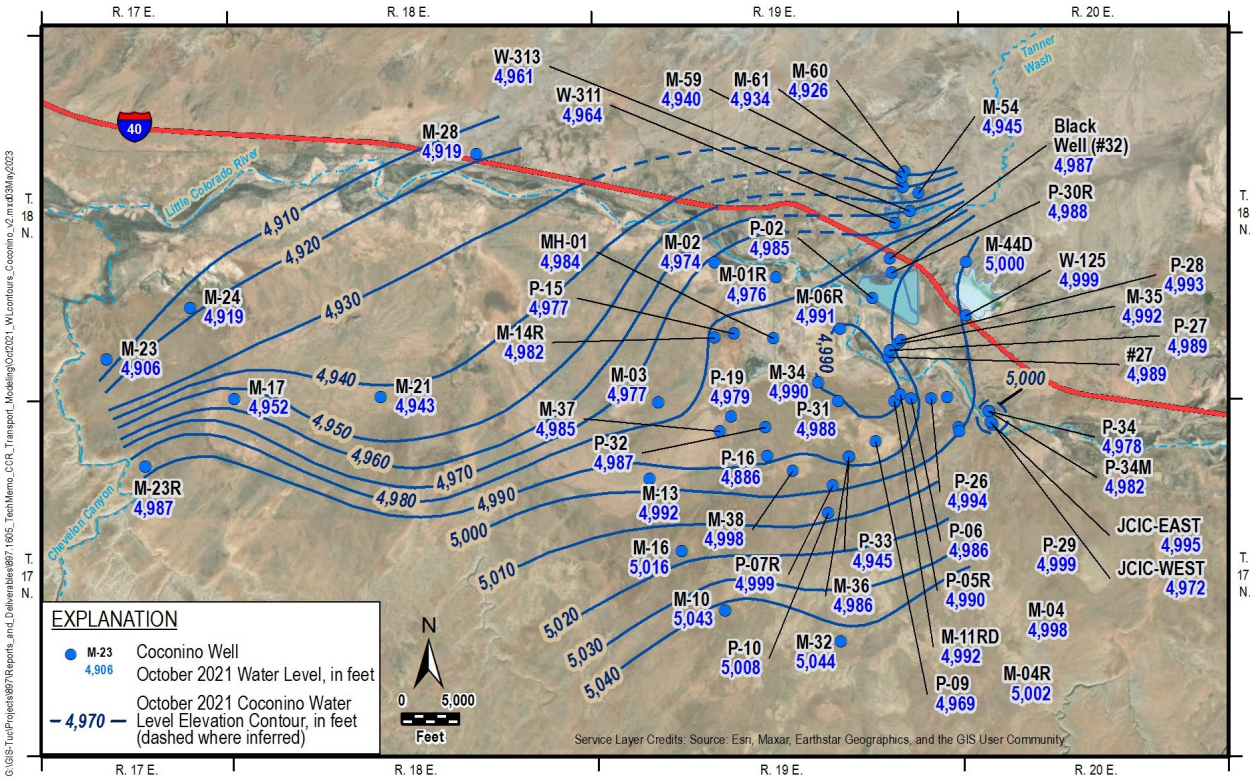

Figure 5. Coconino Water Level Elevation Contours October 2021

Vertical Gradients

Vertical hydraulic gradients between the Coconino Aquifer and the overlying Floodplain Alluvial Aquifer vary spatially and temporally in the Cholla area based on pumping and recharge. At present, there is a slight upward vertical gradient from the Coconino Aquifer to the LCR Alluvium. During time periods when pumping from the Coconino Aquifer was greater, the gradient was reversed. Conversely, for at least the last 30 years, monitoring data have demonstrated a consistent downward hydraulic gradient from the Tanner Wash Alluvial Aquifer to the Coconino Aquifer.

Estimated Groundwater Budget

Table 1 provides estimated average annual rates in gallons per minute (gpm) for water budget components within the active model domain shown on Figure 1.

Table 1. Summary of Average Annual Estimated Groundwater Water Budget Inflow and Outflow Components

Inflows					
Component		**Estimate in gpm**			**Source/Method**
		Min	**Mean**	**Max**	
Pond Seepage	BAP	30	50	70	Water Balance Model (WSP, 2021)
	FAP	17	139	260	Darcy Flux Across Dam
	Cholla Lake	12	18	23	Water Balance and Flux Estimate
Groundwater Recharge		6,000	6,500	7,000	BCM[a] (Flint and Flint, 2007)
Stream Recharge	LCR	200	8,000	14,000	% Streamflow (Flint and Flint, 2007)
	Tanner Wash	1	6	10	% BCM Recharge (Meixner and others, 2016)
Lateral Groundwater Flow from the South		700	203,000	1,180,000	Darcy Flux near Southern Boundary
Total		6,960	217,713	1,201,363	
Outflows					
Component		**Estimate in gpm**			**Source/Method**
		Min	**Mean**	**Max**	
Stream Discharge (Chevelon)		900	3,825	6,750	Baseflow Estimate at Chevelon Creek Gage 09398000
Groundwater ET		0	0	0	NDVI[b]
Groundwater Pumping		7,000	11,100	15,200	APS, Arizona Department of Water Resources (ADWR), and estimated
Lateral Groundwater Flow to the North		200	61,000	351,000	Darcy flux near Northern Boundary
Total		8,100	75,925	372,950	
Inflow — Outflow		-1,140	141,788	828,413	

[a] BCM = Basin Characterization Model

[b] NDVI = Normalized Difference Vegetation Index

Inflows

Supporting lines of evidence used to develop the conceptual understanding and estimated ranges for water budget inflow components are described below. Total annual inflows are estimated to range from 6,960 gpm to 1,201,363 gpm, with an average of 217,713 gpm, as shown in Table 1.

Pond Seepage

Pond seepage in the study area includes surface water impoundment seepage from the BAP, FAP, and Cholla Lake.

Water level data demonstrate a strong correlation between BAP levels and water levels in the Tanner Wash Alluvial Aquifer. Water level rise in the Tanner Wash Alluvium of over 30 feet is attributed to construction and initial filling of the BAP, with subsequent declines of 5 to 10 feet occurring in response to dropping pond levels in recent decades. BAP pond seepage is estimated from the BAP Post-Operation Water Balance Report, which computes seepage ranging from about 10 gpm for a pond elevation of 5,080 feet amsl to approximately 65 gpm for a pond elevation of 5,115 feet amsl based on a water balance spreadsheet model (Wood, 2021).

Water levels for Alluvium monitoring wells immediately adjacent to the FAP dam show a strong correlation to pond levels, but water levels in the LCR Alluvium more distant from the FAP do not correlate to pond seepage. Impacts from FAP seepage to the LCR Alluvium are more localized than recharge from BAP seepage to Tanner Wash. Estimates for FAP seepage are calculated using the equation below for a range of hydraulic conductivity (K) values, distances to head reference location, and changes in head between the pond and the downgradient alluvium wells. Saturated thickness is estimated to be 10 feet and 4,000 feet is the estimated length of the dam across which seepage is assumed to occur. Estimated parameters and resulting ranges are shown in Table 2. FAP seepage is estimated to range between 17 gpm and 260 gpm.

$$Seepage = \frac{K\ x\ Dam\ Length\ x\ Saturated\ Thickness\ x\ Change\ in\ Head}{Distance\ to\ head\ reference}$$

Table 2. FAP Estimated Parameters for Calculating Potential Seepage Range

Parameter	Minimum Estimate	Maximum Estimate
Alluvium K (feet/day)	1.0	5.0
Dam Length (feet)	4,000	4,000
Saturated thickness (feet)	10	10
Distance to head reference (feet)	600	300
Change in Head (feet))	50	75
Seepage (feet3/day)	3,333	50,000
Seepage (gpm)	17	260

A portion of pond seepage is also collected and rerouted to the ponds. Water from these seepage collection systems is estimated to be between 4 gpm and 36 gpm, based on information provided by APS. Seepage water collection is not conceptualized as part of the groundwater inflow or outflow balance, as the water comes from the ponds and is recycled back into the ponds.

Water levels in the LCR Alluvium do not appear to be significantly influenced by recharge from Cholla Lake. Recharge from Cholla Lake is estimated to range between 12 gpm and 23 gpm. The 12 gpm low end recharge estimate is based on replenishment rates from pumping to maintain Cholla Lake at full capacity. The higher end recharge rate of 23 gpm is estimated by

assuming the reservoir is maintained at a fairly constant level, with an estimated surface area of about 360 acres, and a conductivity of compacted subsurface clay of $1x10^{-7}$ centimeters per second (cm/s) (ADEQ, 2010).

Groundwater Recharge

Recharge within the study area includes diffuse recharge and focused recharge. Diffuse recharge is from direct infiltration of precipitation and percolation to the water table. Focused recharge occurs where precipitation runoff is concentrated in specific locations, such as ephemeral or perennial surface-water systems.

Recharge is estimated to be between 6,000 gpm and 7,000 gpm across the entire model domain, not including LCR recharge. Recharge rates for the study area are estimated using the Basin Characterization Model (BCM), a publicly available distributed parameter water balance model covering much of the Western United States (Flint and Flint, 2007). Recharge rates are greater to the south at higher elevations with greater diffuse recharge. Annual precipitation in the vicinity of the Plant averages only about 8 inches per year (NOAA, 2023) and diffuse recharge is therefore minimal.

High frequency water level data for Tanner Wash Alluvium monitoring wells show little to no response to streamflow events. Review of historical aerial imagery shows the persistent presence of water in borrow pits and stock ponds along Tanner Wash that capture surface water runoff. In Tanner Wash, recharge is estimated to be between approximately 1 gpm and 10 gpm. Focused recharge for Tanner Wash 13% and 74% of total recharge based on estimated for watersheds in the western United States (Meixner and others, 2016).

Stream Recharge

Precipitation runoff, principally from upstream of the study area, contributes to focused recharge along the LCR. High frequency water level data for LCR Alluvium monitoring wells show little to no response to streamflow events. Average annual streamflow in the LCR ranges from approximately 2,400 gpm to 35,000 gpm. Groundwater recharge along the LCR within the study area is estimated to be between 10% and 40% of streamflow in the LCR— which computes to a range of approximately 200 gpm and 14,000 gpm based on low and high annual average streamflow rates. Estimates of recharge along the LCR in the study area are based on average annual streamflow from USGS gage station 09397000 from 2005 through 2019 and estimated ranges of percent recharge from runoff in other similar basins in the southwest (Flint and Flint, 2007).

Lateral Groundwater Flow from the South

The primary groundwater inflow to the study area is from lateral flow to the south, where the Coconino is recharged at higher elevations. The model is truncated along the Holbrook anticline to the south, which is an area of uplift where recharge to the Coconino is conceptualized to occur.

Groundwater inflow to the study area is estimated using a Darcy flux calculation based on groundwater contours published by Mann, 1979. The flux calculation was performed along the intersection of the 5,200-foot groundwater elevation contour (Figure 2, Mann,1979) with the model domain using the following parameters:

- Hydraulic conductivity ranging from a minimum of 0.1 (feet/day), geometric mean of 30 ft/day, and maximum of 174 feet/day
- Average saturated thickness of 1,500 feet
- Cross section width of 145,000 feet
- Average hydraulic gradient of 0.006 feet/foot

Based on the minimum, mean, and maximum hydraulic conductivity values, the resulting range of groundwater inflow rates is estimated at 700 gpm, 203,000 gpm, and 1,180,000 gpm, respectively.

Outflows

Supporting lines of evidence used to develop the conceptual understanding and estimated ranges for water budget outflows are described below. Total annual outflows are estimated to range from 8,100 to 372,950 gpm, with an average of 75,925 gpm, as shown in Table 1.

Groundwater Evapotranspiration

Evapotranspiration occurs across the landscape wherever vegetation or soil moisture is present. This is largely a vadose zone process; in this region of Arizona most plants do not access groundwater. However, along stream drainages and riparian areas where groundwater is relatively close to the surface, trees and shrubs draw water from the water table, resulting in groundwater evapotranspiration.

Locations having the potential for groundwater evapotranspiration can be identified on remotely sensed images using the Normalized Difference Vegetation Index (NDVI), a metric for quantifying extent of vegetation based on greenness. NDVI values can range from -1 to 1; however, typical values range from 0.025 (bare soil) to 0.5 (dense green-leaf vegetation) (Holben, 1986). Areas with long-term high NDVI values, especially during dry summer months,

indicate vegetation that is established and active during the warmest and driest part of the year and likely dependent upon groundwater. Images of NDVI for the study area are available from the Earth Engine Evapotranspiration Flux (EEFlux), an online Landsat image-based evapotranspiration calculator (https://eeflux-level1.appspot.com/). Based on NDVI images and field observations of scarcity of vegetation, especially large trees, along the streams in the study area, groundwater evapotranspiration is assumed to be zero.

Stream Discharge

Stream discharge is estimated from baseflow at Chevelon Creek near Windslow 0939800. Baseflow is reported to vary between approximately 2 cubic feet per second (cfs) (900 gpm) to 15 cfs (6,750 gpm), generally averaging 2.5 cfs (1,100 gpm).

Groundwater Pumping

Groundwater pumping in the study area comprises pumping from deeper, higher-capacity water supply wells completed in the Coconino, and other shallower lower-capacity pumping wells. Pumping rates are reported for APS production wells and high-capacity (greater than 35 gpm) wells within the Irrigation Non-Expansion Area (INA) boundary. Outside of the INA boundary and for low capacity (less than 35 gpm) wells, rates were estimated based on well use. The total average annual pumping rate for the study area is estimated to range between approximately 7,000 gpm and 15,200 gpm.

Lateral Groundwater Flow to the North

The primary outflow within the study area is lateral flow to the north.

Groundwater outflow from the study area is estimated using a Darcy flux calculation based on groundwater contours published by Mann, 1979. The flux calculation was performed along the intersection of the 4,800-foot groundwater elevation contour (Figure 2, Mann, 1979) with the model domain using the following parameters:

- Hydraulic conductivity ranging from a minimum of 0.1 feet/day, geometric mean of 30 feet/day, and maximum of 174 feet/day
- Average saturated thickness of 700 feet
- Cross section width of 185,000 feet
- Average hydraulic gradient of 0.003 feet/foot

Based on the minimum, mean, and maximum hydraulic conductivity values, the resulting range of groundwater outflow rates is estimated at 200 gpm, 61,000 gpm, and 351,000 gpm, respectively.

Change in Storage

As described in Section 4.5.1, the total average annual inflow is estimated to be 217,713 gpm. As described in Section 4.5.2, the total average annual outflow is estimated to be 75,925 gpm. Therefore, within the model domain there is, on average, an estimated overall increase in groundwater storage of 141,788 gpm, with a potential range of change in storage between -1,100 to 828,413 gpm. There is significant uncertainty, particularly around lateral inflows and outflows, resulting in a large range in potential flux rates. Model boundaries were intentionally located far from Cholla to minimize the impact of these boundaries on model results.

Water Quality

CCR related COCs above GWPSs downgradient from the FAP include arsenic, fluoride, lithium, and molybdenum. Cobalt is the only COC above standards downgradient of the BAP. The presence of cobalt is conceptualized to be redox controlled, with the primary mechanism being reducing conditions within and downstream of the BAP, resulting in desorption of cobalt from iron and manganese oxides. This geochemical mechanism is different from the driver of high concentrations downgradient of the FAP, where elevated levels of COCs are generally attributed directly to seepage from the FAP. There are localized high concentrations of arsenic downgradient of the FAP that are attributed to a different source than the FAP; arsenic in this area is not included in the modeling assumptions (Wood, 2020).

Figure 6 shows the 2021 CCR plumes at levels above GWPSs for each COC (Wood, 2022). Detailed figures showing data used for interpretation of plume contours are included in Appendix A. Limited data exists to assess temporal trends of CCR constituents as many of the Alluvial Aquifer wells were installed in recent years.

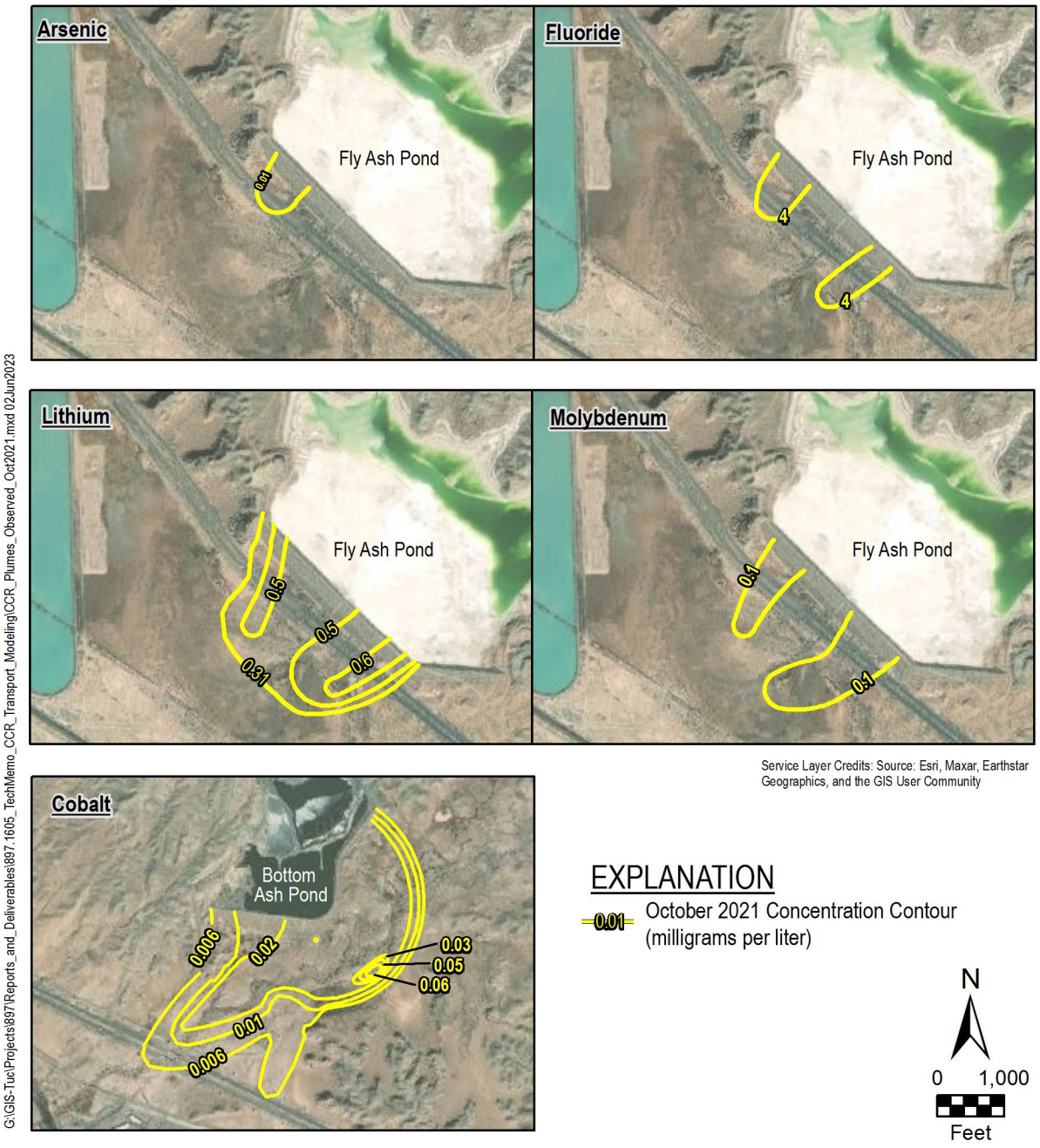

Figure 6. 2021 CCR Plumes

GROUNDWATER FLOW MODEL

The Cholla numerical groundwater flow model was developed based on the regional conceptual site model and local hydrogeologic data acquired through decades of monitoring. The pre-existing groundwater flow model, developed as an operational tool for Cholla, was used as the starting point for this study. To meet objectives of the CCR evaluation, the Cholla model was refined to simulate transport in the Alluvial Aquifer adjacent to and downgradient of the FAP and BAP. Regional model boundary locations and properties were not changed; however, grid refinements were implemented in the Study Area to support Alluvial Aquifer calibration and solute transport.

Model Code

The Cholla model was developed using MODFLOW-USG (Panday and others, 2017) and Groundwater Vistas, a graphical modeling interface (Rumbaugh and Rumbaugh, 2017). MODFLOW-USG is a version of the United States Geological Survey's MODFLOW groundwater flow model (McDonald and Harbaugh, 1988; Harbaugh and McDonald, 1996; Harbaugh and others, 2000; Harbaugh, 2005) that supports a wider variety of model grid types than previous versions of MODFLOW. For the Cholla model, MODFLOW-USG allowed for grid refinements laterally and vertically near and downgradient of the FAP and BAP, while maintaining a relatively coarse grid spacing in the remainder of the model domain. This approach optimizes run time and provides more discretized results in areas of interest. The USG-Transport code (Panday, 2017) was used to simulate 3D advective-dispersive chemical transport.

Model Grid and Layering

The model domain and boundary conditions are shown on Figure 7. The active model boundaries are at sufficient distances from the area of interest to minimize artificial effects from model boundaries and to coincide, when possible, with well-defined hydrogeologic boundaries including the Holbrook anticline to the south, Silver Creek to the east, and Clear Creek to the west. The model grid covers an area of approximately 1,736 square miles, with active cells covering approximately 1,150 square miles. The model grid is not rotated.

The model grid discretization was increased at features of interest, including adjacent to and downgradient of the FAP and BAP, the area where Cholla pumping occurs, and along the LCR, Tanner Wash, and Chevelon Creek. Grid refinement was done using quadtree refinement resulting in grid cell dimensions ranging from 1,000 by 1,000 feet along the edges of the model to 125 by 125 feet in the most highly discretized areas. Figure 8 depicts a portion of the refined model grid in the vicinity of Cholla Power Plant, FAP, and BAP. The lateral grid spacing is consistent throughout all model layers.

Twelve model layers were used to represent the subsurface flow system. Model layers mirror the land surface topography and have variable thicknesses to account for thicknesses of the hydrogeologic units. Layering was developed based on review of lithologic logs and development of a Leapfrog geologic model (Seequent, 2019). Table 3 shows the relationship between model layers and hydrogeologic units. The Alluvium and Moenkopi were subdivided into multiple layers to reduce potential numerical dispersion during transport simulations. Layers 1 through 4 have equal thicknesses, each being one-quarter of the total Alluvium thickness. Layer 6 and Layer 7 combined are one-half the thickness of the Moenkopi and Layer 8 is one-half the thickness of the Moenkopi.

Table 3. Model Layering

Layer	Geologic Unit	Thickness Range (feet)
1 - 4	Alluvium[a]	0 – 348
5	Chinle	0 – 1,302
6-8	Moenkopi	0 – 886
9	Kaibab	0 – 359
10	Coconino	112 – 751
11	Schnebly Hill	3 – 481
12	Supai	3 – 1,481

[a] Includes LCR Alluvium, Tanner Wash Alluvium, and FAP Alluvium, which have different hydraulic properties

Temporal Discretization

The model-simulated historical period extends from 1980 through 2021. The first stress period in the model is a steady-state stress period that represents average groundwater conditions in 1980, the earliest time period when sufficient water level data were available. Eleven water level targets from 1980 were used to calibrate initial head values. Transient annual stress periods were used from 1980 through 2007 and transient monthly stress periods were used from 2008 through 2021. Model stress periods shifted from annual to monthly in 2008 due to the availability of higher frequency water level data sets. The model utilizes MODFLOW-USG's adaptive time stepping (ATS) package, which automatically adjusts time steps within each stress period to stabilize the numerical solution.

Model Representation of Water Budget Components

Table 4 provides an overview of the principal components of the water budget and how they are represented in the model.

Table 4. Summary of Water Budget Components and Model Representation

	Tanner Wash Alluvium	LCR Alluvium	Coconino
Inflows			
Focused Artificial Recharge	BAP pond seepage - represented with General Head Boundary (GHB)	FAP pond seepage -represented with GHB Cholla Lake - represented with recharge (RCH) package	None
Focused Natural Recharge	Streamflow events in Tanner Wash - represented with RCH package Stock ponds and borrow pits represented with RCH package	Streamflow events in the LCR – represented with stream (STR) package	Streamflow events in Chevelon Creek – represented with STR package
Diffuse Natural Recharge	Precipitation – represented with RCH package	Precipitation – represented with RCH package	Precipitation – represented with RCH package
Groundwater Inflow	Not explicitly modeled	Contributions from underlying Coconino – simulated Groundwater inflow from the east – represented with constant head (CH) boundary	High elevation recharge to the south – represented with constant head (CH) boundary
Outflows			
Evapotranspiration	Along Tanner Wash – not explicitly modeled	Along LCR - not explicitly modeled	Along Chevelon Creek - not explicitly modeled
Pumping	Seepage collection system – represented in GHB	Seepage collection system – represented in GHB	Cholla extraction wells and regional pumping – represented with well package (WEL)
Groundwater Outflow	Groundwater outflow to the south/southeast – simulated	Groundwater outflow to the west – simulated Downward flow to the Coconino – simulated	Groundwater outflow to the north – represented with CH boundary Flow to the LCR alluvium – simulated Groundwater discharge to streams – represented with the STR package

Constant Head Boundary Condition

The cells where a constant head boundary condition was applied are shown on Figure 7. Constant head boundaries along the model perimeter, used to represent groundwater inflows and outflows, are based on groundwater contours reported by Mann (1979) and groundwater level data for the 1940 through 1960 pre-development period. The southern model boundary coincides with the location of the Holbrook anticline, where the Coconino Sandstone is pushed upward and recharge to the Coconino is conceptualized to occur. The constant head cells are present in Layers 9, 10, and 11 with varying extents. Inflows and outflows along the constant head boundaries account for the largest flux of water within the model domain. Inflows occur principally to the south and outflows occur principally to the north boundary. The average annual rate of inflow and outflow from the constant head boundary is between 50,000 gpm and 60,000 gpm (see Figure 16).

No Flow Boundary Condition

A no-flow boundary was set along the northeastern and northwestern portion of the model domain approximately parallel to the regional flow direction. In the absence of data at depth that would indicate otherwise, a no-flow boundary was assumed at the bottom of the model (base of Layer 12). The assumption of a no-flow boundary at depth implies that groundwater flow is dominated by horizontal flows and that vertical flows are negligible in this part of the model. This assumption is based on the generalized conceptualization of regional flow systems presented in Groundwater, Chapter 6, by Freeze and Cherry (1979).

General Head Boundary Condition

General head boundary (GHB) conditions are present along the dams at the FAP and BAP to simulate recharge to the Alluvium from pond seepage. There are 4 reaches defined along the BAP dam and 2 reaches along the FAP dam, as shown on Figure 8. The GHB calculates seepage based on the water level in the pond and an assigned conductance value based on the composition and thickness of the dam embankment. For the historical period, 1980 to 2021, head values are based on measured water level elevations of the ponds and conductance values are based on seepage estimates, construction details, and ranges of estimated fluxes from the pond dams, as detailed below.

For the BAP, conductance values were calculated using the relationship between pond seepage and the change in BAP head values along 4 sections of the BAP dam (A, B, C, and D), which were reported in the BAP Post-Operation Water Balance Report (Wood, 2021). For each section, a conductance value was estimated from the change in seepage rate per foot of head change. The conductance values calculated for each section are then distributed equally among the GHB cells within the associated section. The annual average rate of seepage from the combined BAP GHB

reaches ranged from 53 gpm to 75 gpm for the simulated historical model period (see Figure 16). Table 5 shows the BAP head change and associated seepage used to calculate conductance for each dam section and each GHB cell within each section.

Table 5. BAP General Head Conductance Values

Section	Pond Head Change (ft)	Change in Seepage Associated with Pond Head Change (gpm)	Seepage rate per ft of head change (gpm/ft)	Conductance Over Section (ft^2/day)	Number of GHB Cells	GHB Conductance Per Cell (ft^2/day)
A	43	15	0.35	67	5	13.4
B	52	12	0.23	44	5	8.8
C	50	5.75	0.12	22	5	4.4
D	50	10.25	0.21	39	12	3.25

For the FAP, a potential range of conductance values was calculated using estimates of hydraulic conductivity, cell width, estimated saturated thicknesses, and distance to the head reference location. Due to uncertainty, principally in the distance to the head reference and hydraulic conductivity estimates, the range of potential conductance values is estimated to be between about 2 ft^2/day and 20 ft^2/day for each GHB cell. The simulated GHB cell conductance values for the calibrated model were estimated to be 4 ft^2/day and 5 ft^2/day for the historical model period. The average annual rate of seepage from the combined FAP GHB reaches ranged from 15 gpm to 37 gpm for the simulated historical model period (see Figure 16). The calculation for conductance at the FAP is shown below. The minimum and maximum values and estimated conductance range per GHB cell is shown in Table 6.

$$Conductance = \frac{Hydraulic\ Conductivity\ x\ Cell\ Width\ x\ Saturated\ Thickness}{Distance\ to\ head\ reference}$$

Table 6. FAP Range of Potential General Head Conductance Values

Parameter	Minimum Estimate	Maximum Estimate
Alluvium K (ft/day)	1	5
Cell width (ft)	125	125
Saturated thickness (ft)	10	10
Distance to head reference (ft)	600	300
Conductance (ft^2/day)	2.08	20.8

Streamflow

The LCR and Chevelon Creek were simulated using MODFLOW's Stream (STR) package. STR simulates the exchange of water between a surface-water stream and the underlying aquifer and controls the amount of recharge available to the stream based on flows. Surface-water flows in the LCR were specified at its confluence with Puerco River based on monthly streamflow

records from the USGS stream gauge station 09397000 Little Colorado River at Holbrook, Arizona. No streamflow was specified for Chevelon Creek, as flow in Chevelon Creek is principally derived from groundwater discharge from the Coconino, except during occasional runoff events. The locations of the streams are shown on Figure 7. Model simulated streamflow resulted in an annual average net recharge rate ranging from 257 gpm to 12,211 gpm for the historical period (see Figure 16).

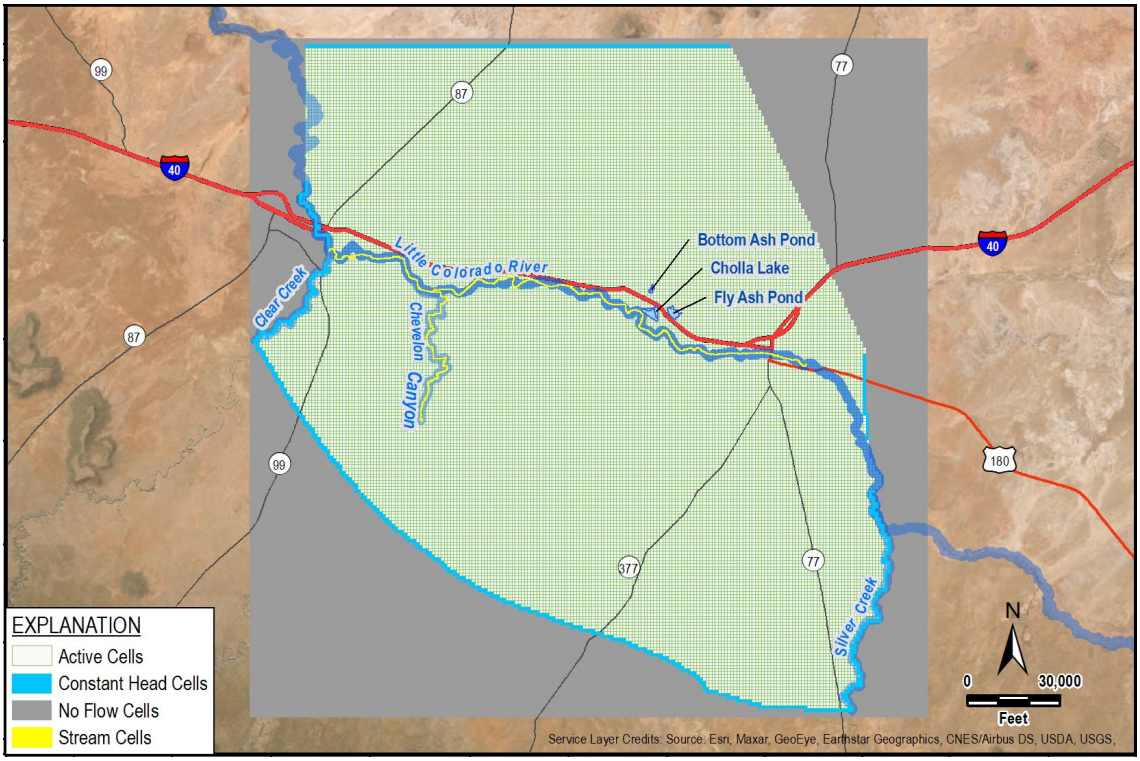

Figure 7. Active Cells, No-Flow Cells, Constant Head Boundaries, and Streams

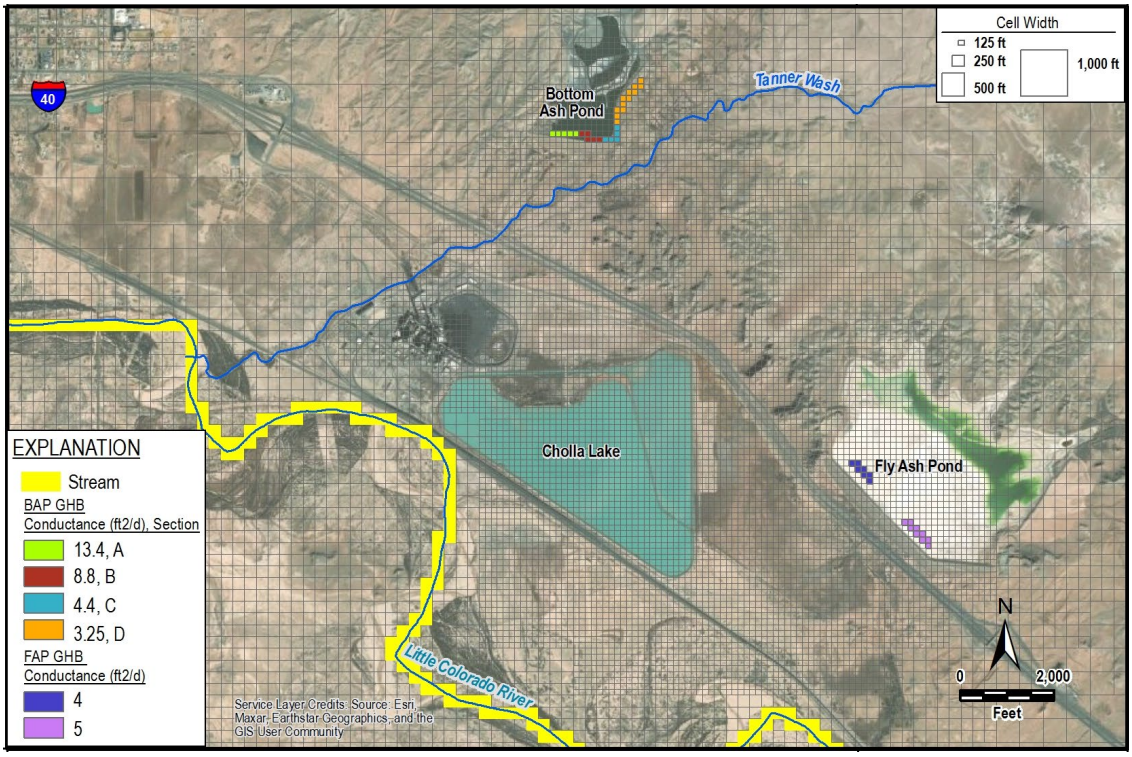

Figure 8. Quadtree Grid Refinement in Study Area, General Head Boundaries, and LCR Stream

Recharge

MODFLOW's recharge package (RCH) was used to represent net recharge of precipitation to the groundwater flow system. Modeled recharge rates are from the Basin Characterization Model (BCM), a publicly available distributed parameter water balance model covering much of the Western United States (Flint and Flint, 2007). The BCM provides diffuse recharge rates across the model domain. Within the Study Area, about 60% of the BCM diffuse recharge in the Tanner Wash watershed was redistributed to focused recharge along Tanner Wash. Focused recharge along Tanner Wash was incorporated into the model based on aerial imagery of water collection in stock ponds and borrow pits, and applied to aid in water level calibration along Tanner Wash upgradient and downgradient of the BAP. The modeled focused recharge rates along Tanner Wash are 0.22 inches/year along the streambed, and 0.88 inches/year at the stock ponds and borrow pits. Focused recharge is also applied at Cholla Lake where recharge rates were developed based on a generalized water balance. Recharge rates range from 0 inches/year over most of the model domain to 1.3 inches/year at Cholla Lake. The distribution of recharge used in the model in the Study Area is shown on Figure 9. The average annual recharge for the entire model domain over the historical period is 6,335 gpm (see Figure 16). Focused recharge in the Study Area accounts for about 29 gpm, 23 gpm from Cholla Lake recharge and 6 gpm from Tanner Wash recharge (see Figure 9).

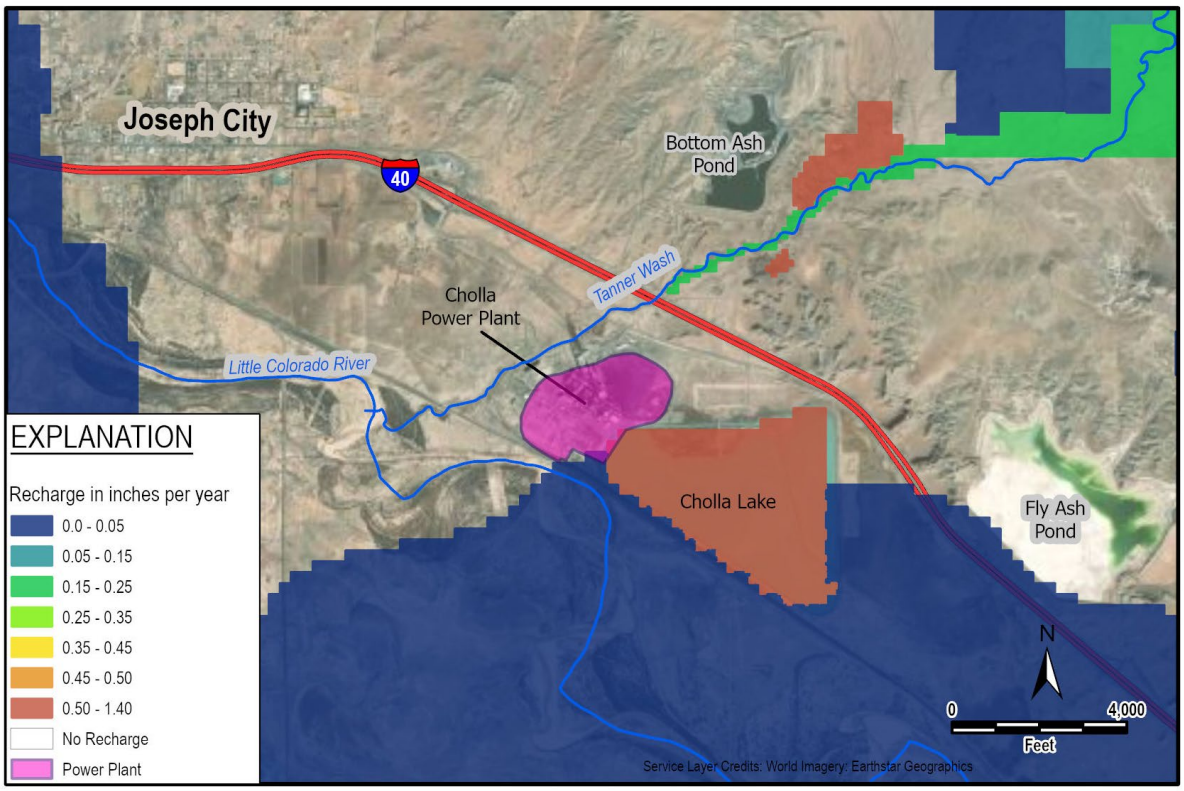

Figure 9. Recharge Distribution in Study Area

Pumping

Historical pumping was incorporated into the model from 1980 through 2021 using annual rates from 1980 to 2008 and monthly rates from 2008 through 2021; modeled annual average pumping rates range from 4,270 gpm to 15,029 gpm (see Figure 16). Groundwater pumping for Cholla operations exceeds pumping from other combined sources in the model domain. Reported rates were applied for Cholla water supply wells and other large pumping wells with available data. Estimated rates were used for wells where pumping is not reported. Annual pumping rates developed for wells with no reported data were assigned from the installation date of the well to the end of the transient model. Estimated rates for domestic, stock, irrigation, commercial, industrial, and municipal use ranged from 0.25 to 50 acre-feet per year (AFY).

Hydraulic Conductivity and Storage Parameters

Model hydraulic conductivity values were based on field data from pumping and slug tests and literature reported ranges for similar geologic materials. Model storage parameters were based on literature values. Field and literature value ranges are summarized with calibrated model values for horizontal hydraulic conductivity (Kh), vertical hydraulic conductivity (Kv), storage (Ss),

specific yield (Sy), and effective porosity (n_e) in Table 7. Distributions of Alluvium hydraulic conductivity, storage, and effective porosity within the Study Area are shown on Figure 10.

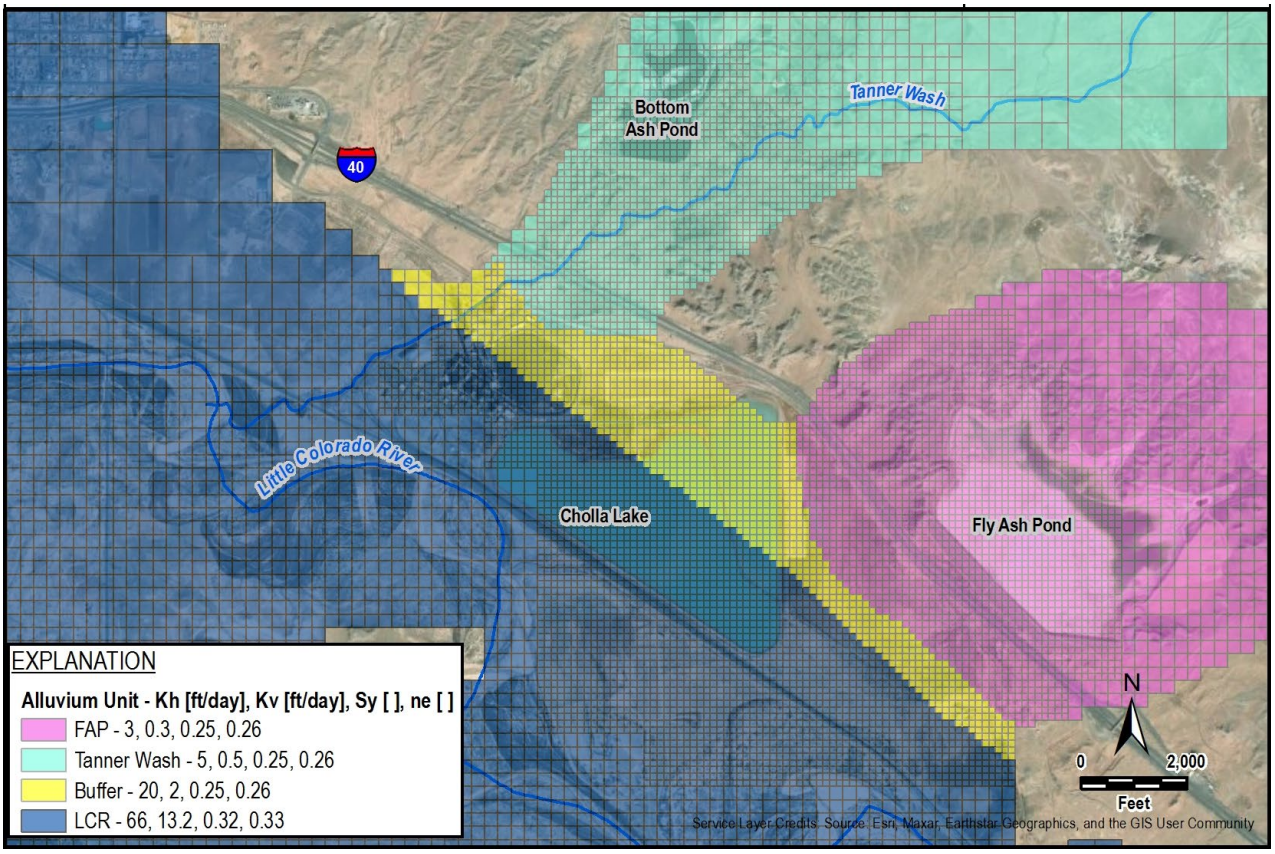

Figure 10. Distribution of Hydraulic Conductivity, Specific Yield, and Effective Porosity of Alluvial Sediments

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Table 7. Summary of Model Hydraulic Properties by Layer

		Hydraulic Conductivity						Specific Yield & Storage			Porosity
		Model Values		Field Values		Literature Values		Model Values[c]	Literature Values		Model Values[d]
Geologic Unit	Model Layer	Kh ft/day	Kv ft/day	K ft/day	Data Source	K feet/day	Data Source	Sy/ Ss	Sy/ Ss	Data Source	n_e
Alluvium (LCR)	1-4	66	13.2	66	Slug Test	Silt to Medium Sand 0.0003 - 142	Domenico and Schwartz, 1990	0.32/ 0.00004	0.20 - 0.33/ NA	Morris and Johnson, 1967 Domenico and Mifflin, 1965	0.33
Alluvium (Tanner Wash)	1-4	5	0.5	0.062-0.44	Pumping Test			0.25/ 0.00004			0.26
Alluvium (FAP)	1-4	3.5	0.3	0.032	Pumping Test						0.26
Alluvium (Buffer)	1-4	20	2	N/A	N/A						0.26
Chinle[a]	5	0.003	0.006	N/A	N/A	Sandstone/Siltstone/ Clay/Shale 0.00000003 – 1.7		0.15/ 0.000001	0.12 – 0.27/ 0.00001 - 0.000001		0.16
Moenkopi (Holbrook)	6	0.5	0.05	N/A	N/A	Sandstone 0.00009 – 1.7		0.21/ 0.00001			0.22
Moenkopi (Moqui and Wupatki)	7-8	0.0003	0.00003	N/A	N/A	Siltstone 0.000003 – 0.004		0.12/ 0.000001			0.13
Kaibab[b]	9	5	1	N/A	N/A	Limestone 0.0003 – 1.7		0.15/ 0.00002	0.06 – 0.25/ 0.00003 – 0.003	Pool and others, 2011	0.16
Coconino	10	0.5-240	0.05-24	2-174	Pumping Test	Sandstone 0.00009 – 1.7					
Schnebly Hill	11	0.5-112	0.05-11.2	N/A	N/A	0.2 – 0.5	Hoffmann and others, 2006	NA/ 0.000002			0.05
Supai	12	0.2 - 5	0.04 - 1	N/A	N/A	0.1 - 0.2	Hoffmann and others, 2006 and Pool and others, 2011	NA/ 0.00001	0.06 – 0.25/ 0.00004 – 0.0001	Pool and others, 2011	0.07

[a] Because the Chinle is a low permeability unit that is above the water table in the model area, it is lumped with respect to model properties with the Moenkopi Formation and assigned parameter values within the range of the underlying Moenkopi layers.

[b] Based on the existing well logs and surficial extent of the Kaibab formation at the southwest of the model domain, it was assumed that this geological volume is too shallow to be of hydrogeological significance for the groundwater model purposes of this report. With respect to model properties, the Kaibab formation is lumped with the Coconino Sandstone and assumed parameter values within the range of the underlying Coconino layer.

[c] Sy and Ss values are shown where USG Upstream Water Table layer types are used; Ss values are shown for confined layers (Layer 11 and Layer 12)

[d] n_e values are assumed to be 0.01 greater than the Sy

GROUNDWATER FLOW MODEL RESULTS

Calibration Results

The groundwater flow model calibration period is from 1980 through 2021. Limited data exists to assess temporal trends in CCR constituent concentrations in Alluvium wells, therefore groundwater heads were solely used as targets for model calibration. Manual calibration of hydraulic conductivity and storage properties was conducted in the Alluvium and Moenkopi. Calibration of hydraulic conductivity in the Coconino was previously conducted using PEST and was not modified for the CCR evaluation. Since there was uncertainty regarding recharge rates along Tanner Wash and from stock ponds, these rates were adjusted within reasonable ranges to aid in improving water level calibration down-gradient from the BAP.

A systematic approach was used to vary model hydraulic parameters within reasonable ranges, and calibration for these numerous independent models was compared using a range of statistics. While no model calibration reflects observed conditions in all areas, the final calibration selected for use in the CCR evaluation represented the most successful combination of parameters among these models relative to project objectives.

The calibration of the groundwater flow model was evaluated by comparing observed and simulated water level elevations using visual assessments and calibration statistics. Figure 2 shows the locations of water level targets used for evaluating model calibration in the Alluvium and Coconino. Modeled versus observed (manually inferred) 2021 water level contours for the Alluvium are shown on Figure 11 and for the Coconino on Figure 12.

For both the Alluvium and the Coconino, the match between observed and simulated water levels is generally good and consistent with model objectives. Simulated Alluvium gradients adjacent to and down-gradient from the BAP are steeper than observed for the historical period. The inconsistency between observed and simulated gradients in this area is assumed to have little impact on attenuation or corrective action simulations. As discussed below, predictive transport model results are mainly controlled by post-closure gradients and sorption, and the gradient along Tanner Wash is predicted to flatten quickly after the BAP is closed out.

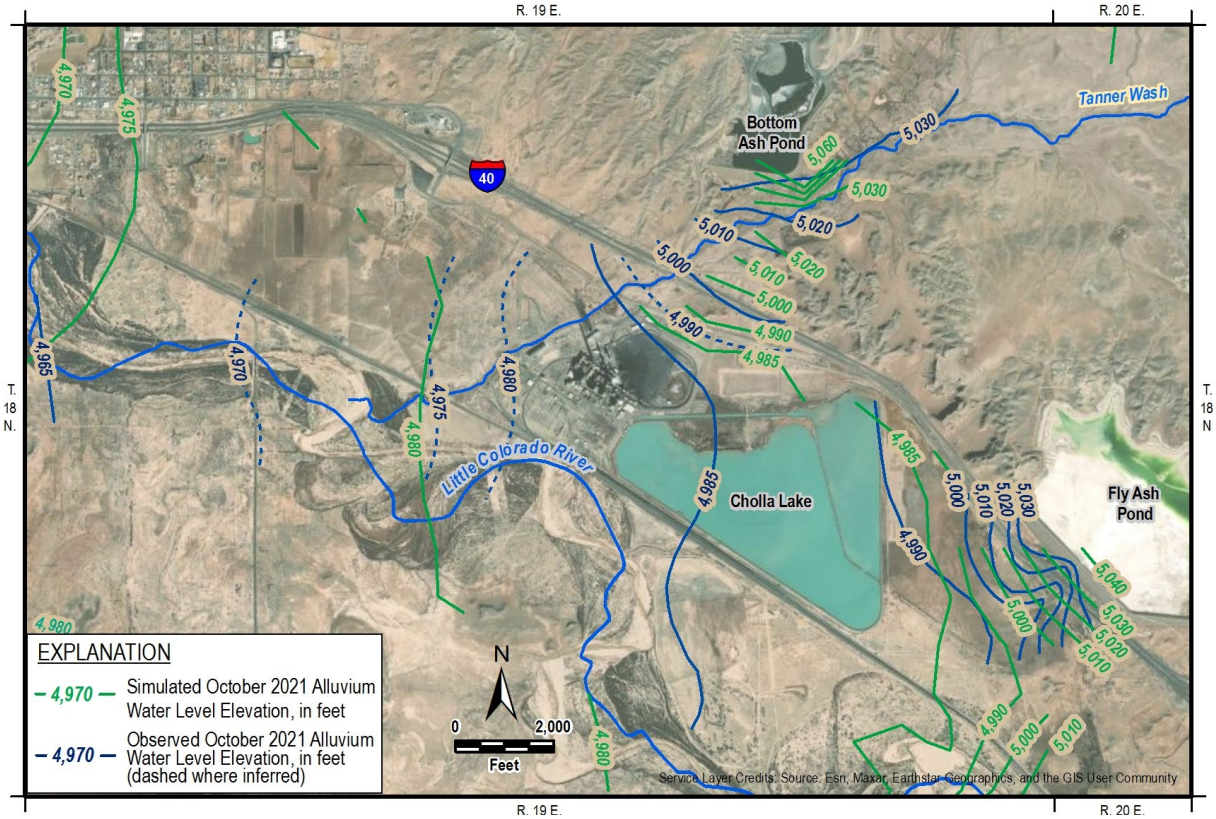

Figure 11. Modeled and Manually Inferred 2021 Alluvial Aquifer Water Level Contours

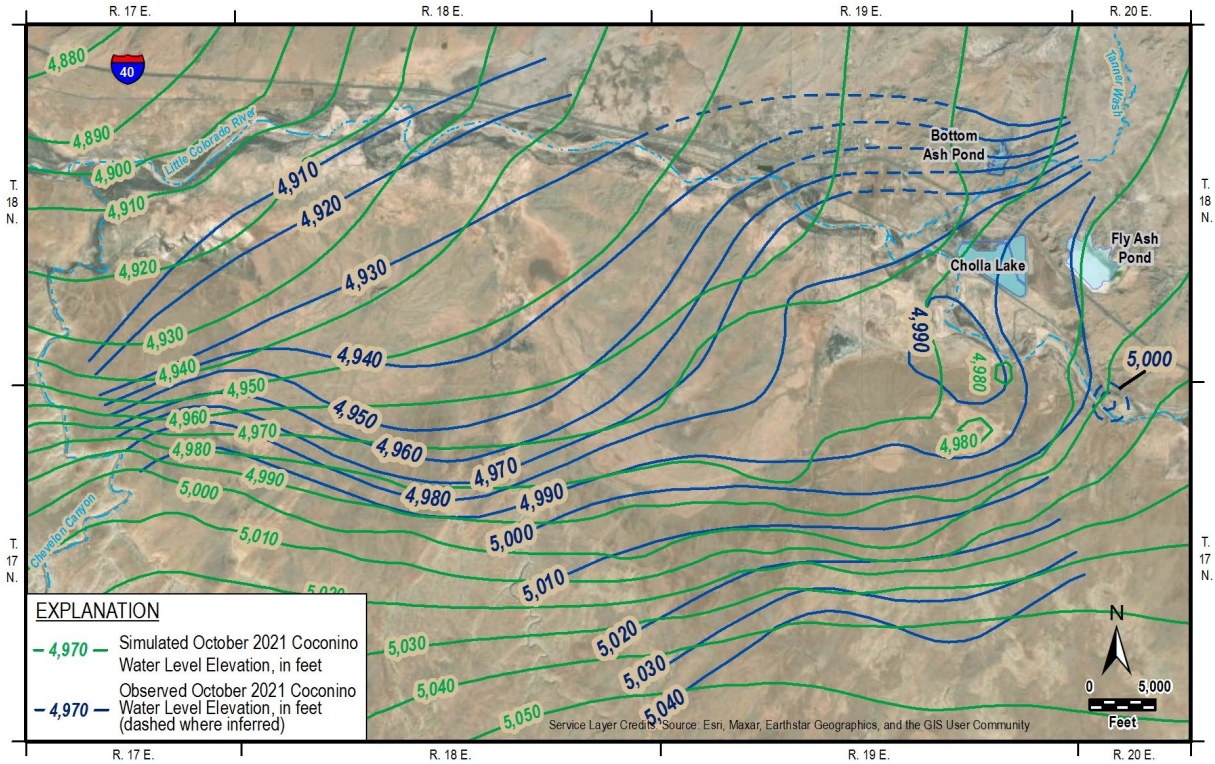

Figure 12. Modeled and Manually Inferred 2021 Coconino Aquifer Water Level Contours

Calibration statistics for model residuals (measured values minus simulated values) are summarized in Table 8 for the set of Alluvial Aquifer wells shown on Figure 2. Statistics for model calibration are within industry standards; the normalized root mean square error (RMSE) value is less than the generally accepted standard of 10%. A scatter plot of modeled vs observed measurements for all time for the same set of Alluvial wells is shown on Figure 13. Points plotting along the 45-degree line on the scatter plot indicate a 1 to 1 agreement between observed and simulated water levels. Points that plot away from the 45-degree line indicate simulated heads that are either higher or lower than observed. Skewing of points either above or below the line can indicate model bias. The calibrated model tends to be relatively balanced around the 45-degree line and is consistent with model objectives. Most of the larger residuals are in fact for the early portion of the historical calibration period just following pond construction and filling. For most wells, the calibration improved over time. Time series plots of observed and simulated water levels are shown in Appendix B.

Table 8. Summary of Calibration Statistcs for Alluvium Wells

Layer(s)	1 - 4
Aquifer Unit	Alluvium[a]
Number of Observations	1441
Range of Observations (feet)	71.27
Mean Error [a] (feet)	-0.36
Mean Absolute Error [b] (feet)	3.81
Root Mean Squared Error [c] (feet)	5.24
Normalized RMSE (%)	7%

[a] Mean Error = the mean of the residuals
[b] Mean Absolute Error (MAE) = the mean of the absolute values of the residuals
[c] Root Mean Squared Error (RMSE) = the square root of the average of the squared residuals

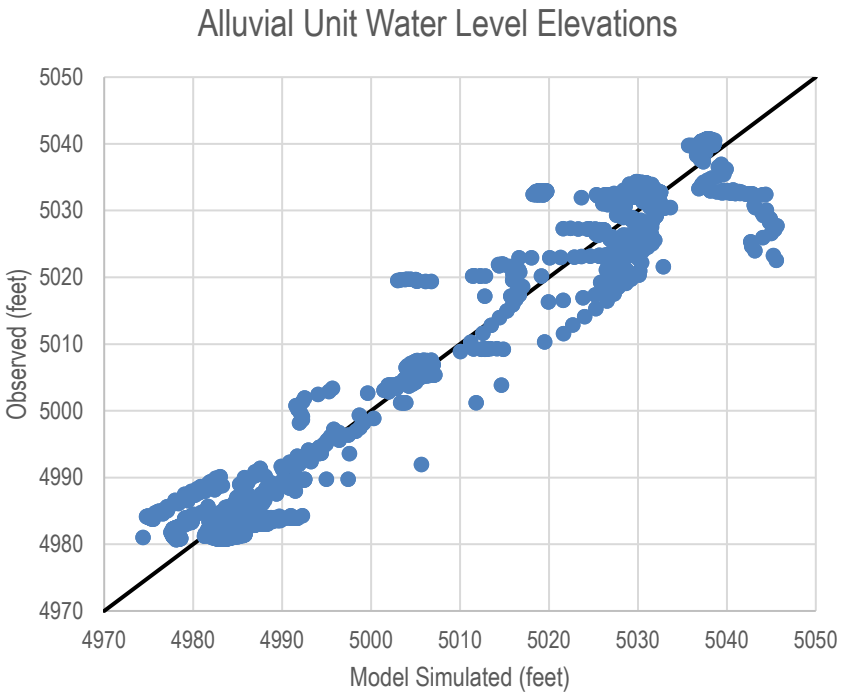

Figure 13. Scatter Plot of Observed and Simulated Water Levels in Alluvium Monitor Wells for Transient Calibration Period

Simulated Water Budget

The simulated inflow and outflow components of the water budget over the entire model domain from 1980 through 2021 are shown on Figure 14. Figure 15 shows the simulated inflow and outflow components without the constant head components, to more easily view differences in groundwater pumping, stream recharge, recharge, and GHB inflow.

Contributions from the constant head boundary conditions account for the largest simulated inflows and outflows for the model domain, with an average annual rate of 54,917 gpm for inflow and 58,877 gpm for outflow. Groundwater pumping is the next largest component, with an average annual outflow rate of 12,053 gpm. Diffuse and focused recharge are simulated at a total inflow rate of 6,335 gpm in the model domain. Net stream recharge contributes an average annual inflow rate of 3,585 gpm and inflow from the FAP and BAP pond GHBs contribute at a total average annual inflow rate of 93 gpm. The combined annual average rate of seepage from the BAP GHB reaches ranges from 53 gpm to 75 gpm for the simulated historical model period. The combined average annual rate of seepage from the FAP GHB reaches ranges from 15 gpm to 37 gpm for the simulated historical model period. Focused recharge near Cholla in the model is simulated at a rate of about 29 gpm: 23 gpm from Cholla Lake and 6 gpm from Tanner Wash.

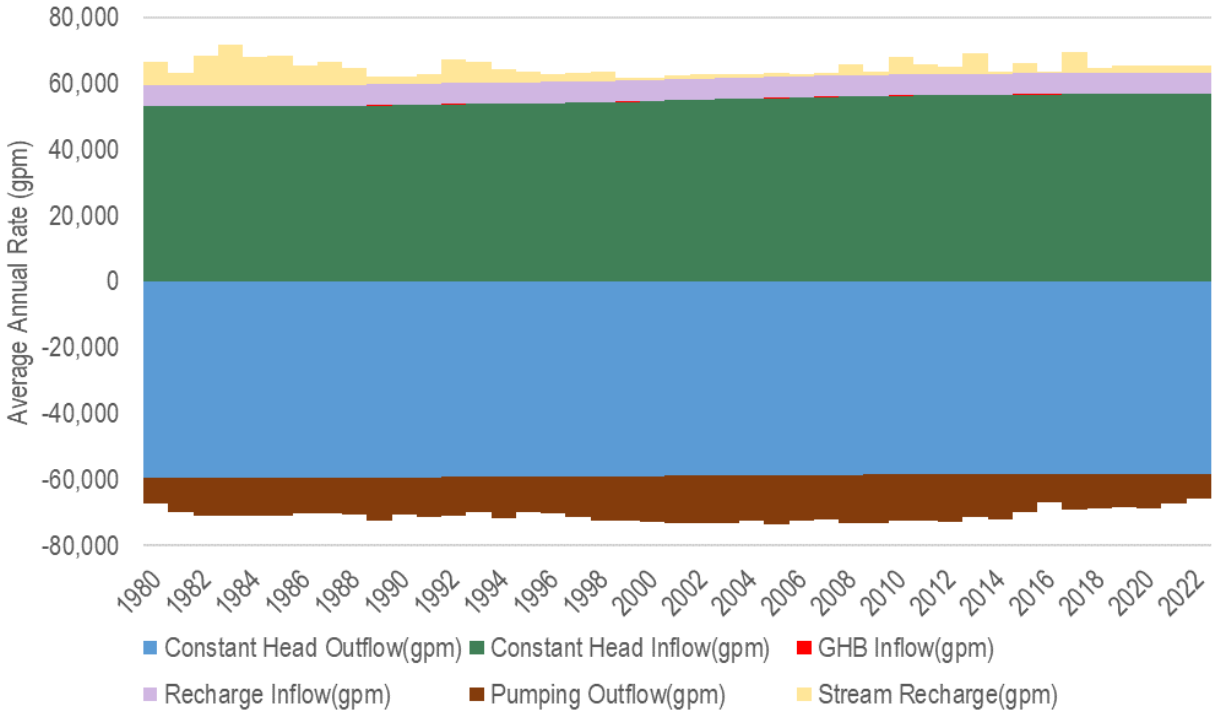

Figure 14. Model Simulated Inflows and Outflows to Model Domain through 2022

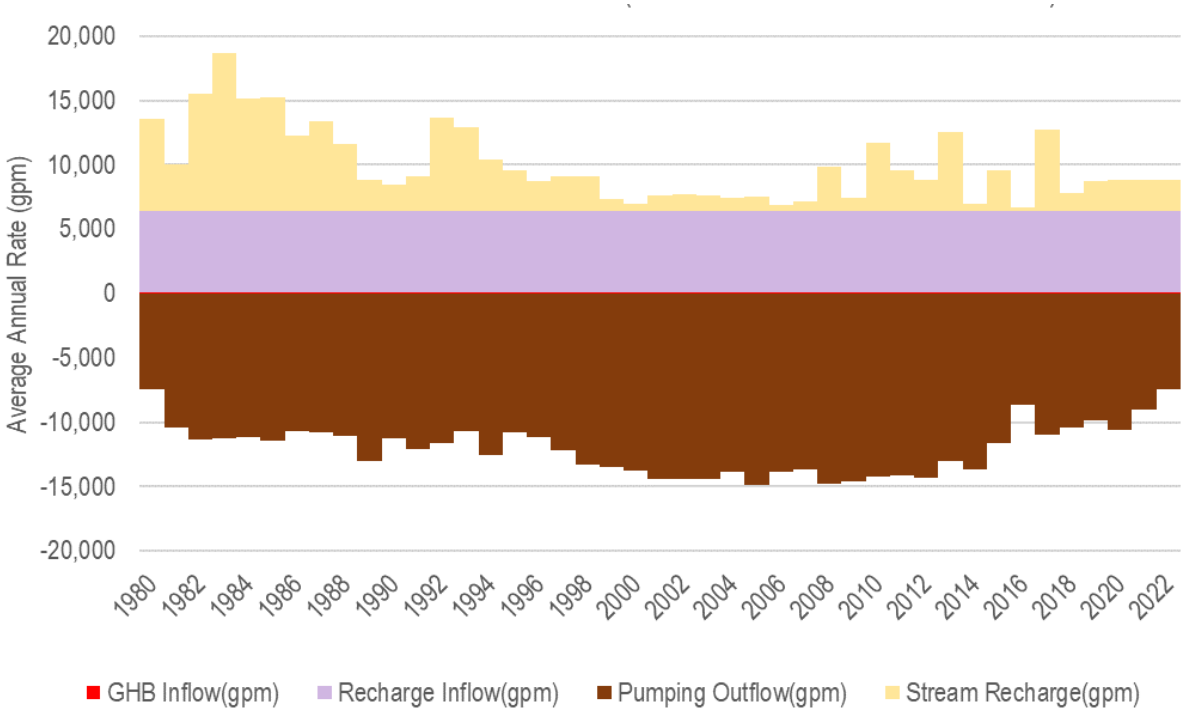

Figure 15. Model Simulated Inflows and Outflows to Model Domain through 2022 Without Constant Head Components

Figure 16 shows the model simulated inflows from surface water sources in the Study Area for the historical period. The inflows to the model within the Study Area account for a small portion, less than 500 gpm, of total inflows into the model domain, which are over 60,000 gpm. Within the Study Area, groundwater flux from the underlying Coconino unit is the largest inflow to the Alluvial Aquifer, averaging 320 gpm over the historical calibration period. Aside from contributions from the Coconino, pond seepage from the BAP and FAP contribute the largest inflow rates for the historical period, followed by Cholla Lake recharge and focused recharge in Tanner Wash, as shown on Figure 16.

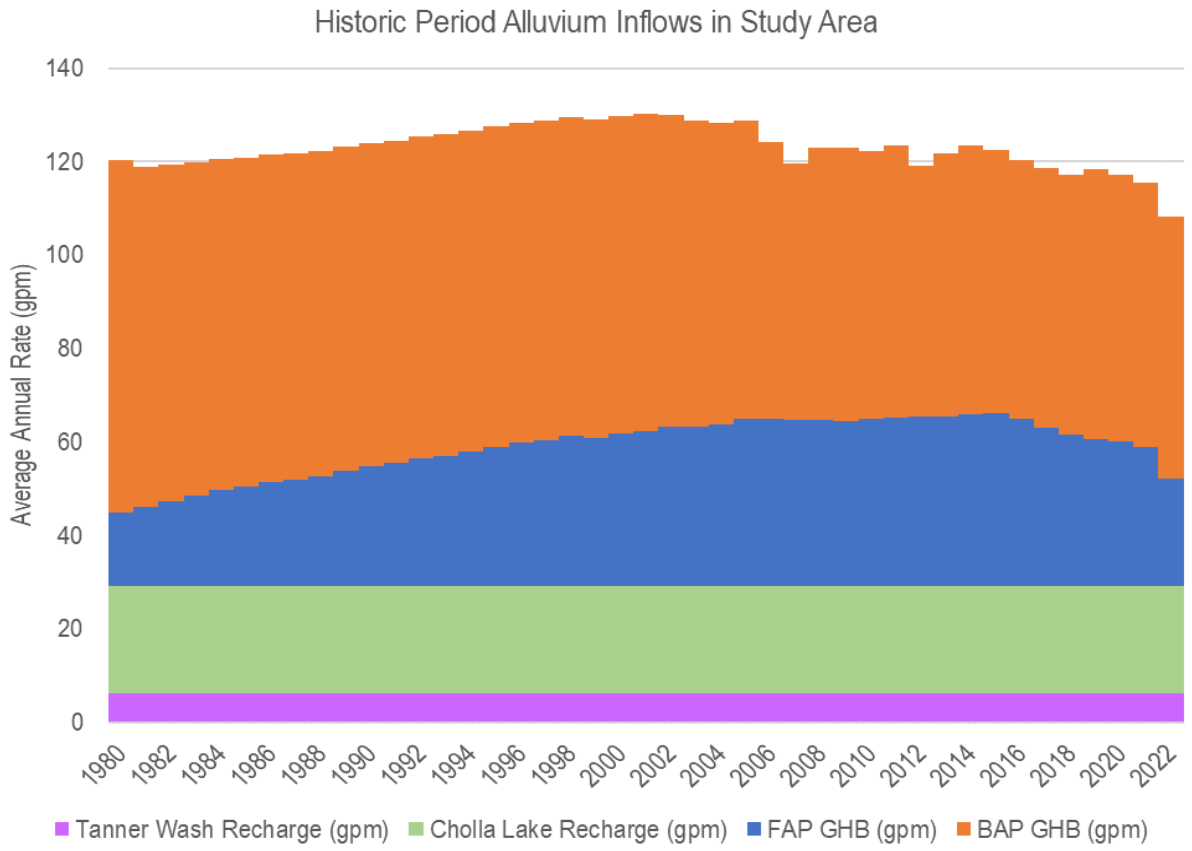

Figure 16. Model Simulated GHB and Focused Recharge in Study Area

Comparison of Simulated and Estimated Water Budget

Table 9 summarizes the simulated water budget described above and the estimated water budget from Section 4.5 for comparison purposes. Overall, most components of the model simulated water budget are consistent with the estimated water budget. However, due to uncertainty around hydraulic conductivities and gradients across the broad areas representing the southern and northern model boundaries, the range in estimated values for lateral inflows and outflows to the model is significant.

Table 9. Summary of Estimated and Simulated Groundwater Budget Inflow and Outflow Components

Inflows					
Component		**Estimate in gpm**			**Model Simulated Annual Average in gpm**
		Min	**Mean**	**Max**	
Pond Seepage	BAP	30	50	70	53 to 75
	FAP	17	139	260	15 to 37
	Cholla Lake	12	18	23	23
Groundwater Recharge		6,000	6,500	7,000	6,300
Stream Recharge	LCR	200	8,000	14,000	1,798 to 15,152
	Tanner Wash	1	6	10	6
Groundwater Inflow		700	203,000	1,180,000	54,917
Total		6,960	217,713	1,201,363	63,112 to 76,510
Outflows					
Component		**Estimate in gpm**			**Model Simulated Annual Average in gpm**
		Min	**Mean**	**Max**	
Stream Discharge (Chevelon)		900	3,825	6,750	1,530 to 4,532
Groundwater ET		0	0	0	Not Modeled
Groundwater Pumping		7,000	11,100	15,200	12,053
Groundwater Outflow		200	61,000	351,000	58,877
Total		8,100	75,925	372,950	72,460 to 75,462
Inflow - Outflow		**-1,140**	**141,788**	**828,413**	**-12,350 to 4,050**

PREDICTIVE TRANSPORT MODEL DEVELOPMENT

Temporal Discretization

During the first 150 years of the predictive period (from 2022 through 2172), the model uses annual stress periods. For the next 480 years (from 2173 through 2651), the model uses 10-year stress periods. The model utilizes MODFLOW-USG's adaptive time stepping (ATS) package, which automatically adjusts time steps within each stress period to stabilize the numerical solution.

Boundary Condition Assumptions for Predictive Period

Constant head boundaries, recharge, and streamflow are held constant for the predictive period. Constant head and recharge are assumed to not change from the historical period and streamflow in the LCR is set to a constant rate of 4,262 AFY based on the historical period. Predictive pumping from the Coconino was assigned based on input from APS and reflects continued operations through 2024, minimal pumping through 2028 to support the closure process, and post-closure non-Cholla pumping at a constant rate after 2028.

GHBs are simulated to incorporate planned shutdown of the plant, dry-up and close out of the BAP and FAP, and containment of COCs within the pond footprints by 2028. The GHB conductance values are set to decrease linearly to zero by 2028; head elevations also decrease from 5,125 feet to 5,115 feet at the BAP and 5,085 feet to 5,070 feet at the FAP. The GHBs are removed after 2028.

Simulated Water Budget for the Predictive Period

Figure 17 shows the modeled inflow and outflow for the predictive period for the entire model domain. Consistent with the historical period, contributions from the constant head boundary conditions account for the largest inflow and outflow from the model domain for the predictive period. Figure 18 shows model simulated inflows from surface water sources in the Study Area for the predictive period. Within the Study Area, groundwater flux from the underlying Coconino unit is the largest inflow to the Alluvial Aquifer, averaging 175 pm for the predictive period. In terms of inflows from surface water, pond seepage drops off quickly to zero after 2028, and recharge from Cholla Lake and Tanner Wash are the largest sources of inflow to the Alluvium, aside from the Coconino, for the predictive period, as shown on Figure 18.

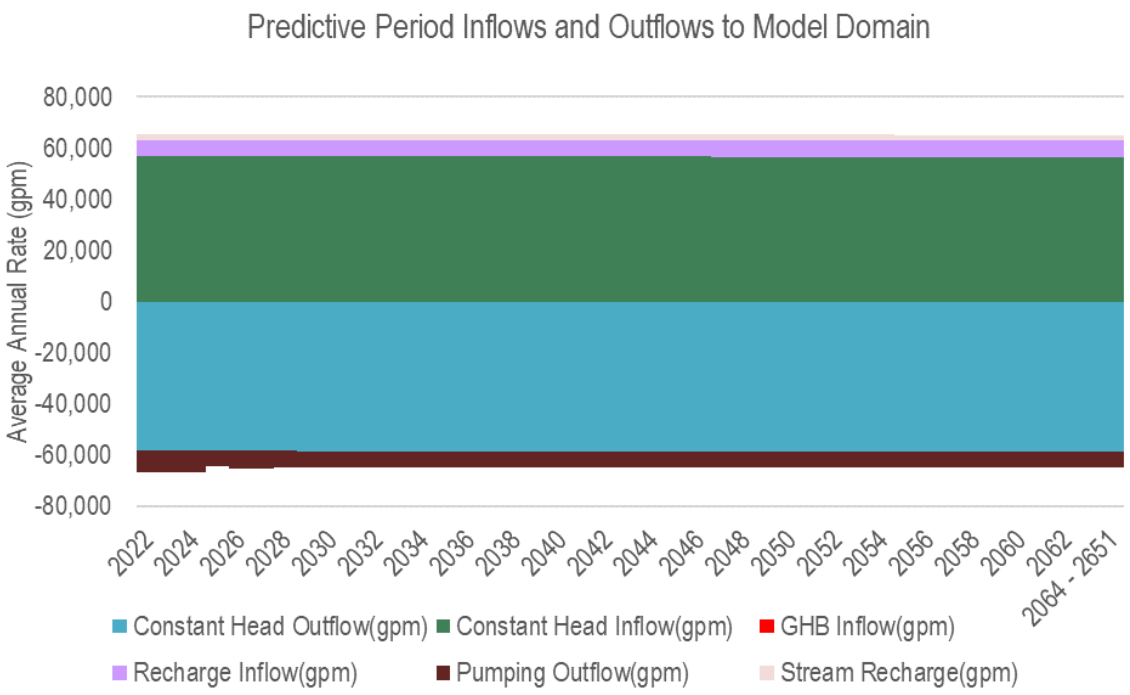

Figure 17. Model Simulated Inflows and Outflows to Model Domain for the Predictive Period

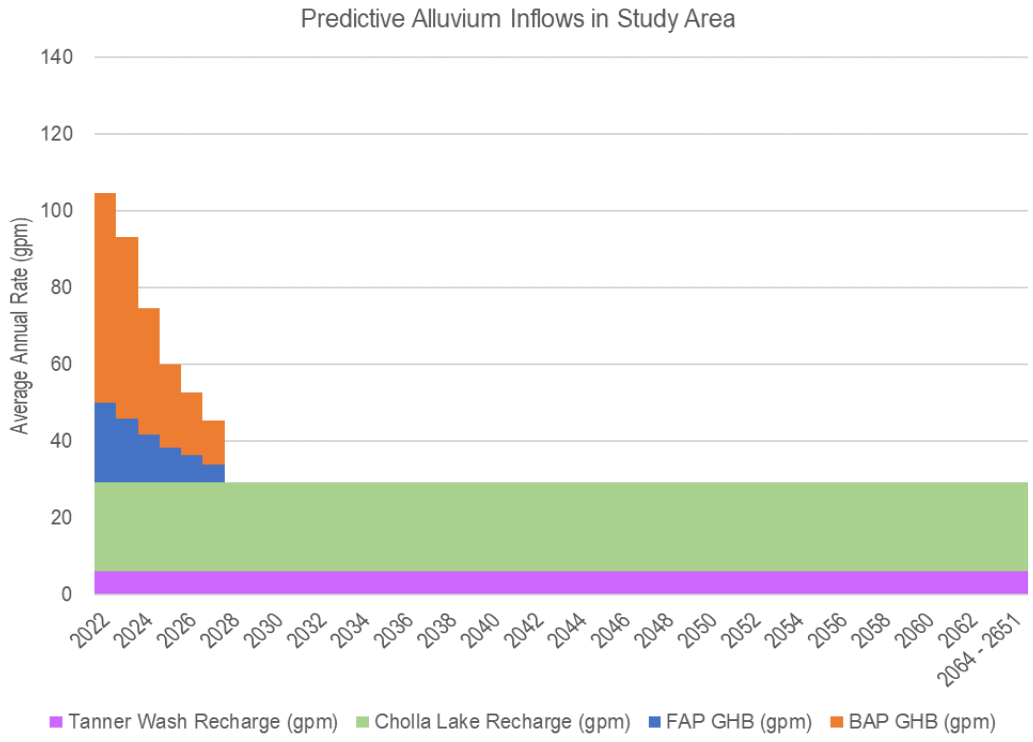

Figure 18. Model Simulated Inflows to Study Area

Initial Conditions

Simulated heads from 2022 were used as initial heads for the predictive period. Initial concentrations for each CCR constituent are based on October 2021 plume contours, measured 2021 concentrations, and historical data for background and GHB concentrations. Plume extents correspond to the area at or above GWPS for each constituent. Background concentrations, in milligrams per liter (mg/L), were calculated using the Kaplan Meier mean of historical data at well M-63A for lithium, fluoride, molybdenum, and arsenic, and at M-64A for cobalt, as shown in Table 10. Triangulated Irregular Network (TIN) interpolation was used to populate model cells from available data. Plume contours and data points used for interpolation, as well as the initial concentration distribution in the model grid, are shown for each of the COCs on Figure 19 through Figure 23. Concentrations assigned along the GHBs are from the Kaplan Meier mean at wells adjacent to the pond dams; concentrations are shown in Table 10.

Table 10. Initial Concentration Assumptions

Constituent	GWPS (mg/L)	Pond	GHB		Background	
			Well Used	Kaplan Meier Mean (mg/L)	Well Used	Kaplan Meier Mean (mg/L)
Cobalt	0.006	BAP	M-52	0.05	M-64A	0.0004 (mostly ND)
Lithium	0.31	FAP	W-126/R	0.74	M-63A	0.06
Fluoride	4	FAP	M-51A	5.2	M-63A	0.26
Arsenic	0.01	FAP	M-51A	0.023	M-63A	0.001
Molybdenum	0.1	FAP	W-123/R	0.35	M-63A	0.003

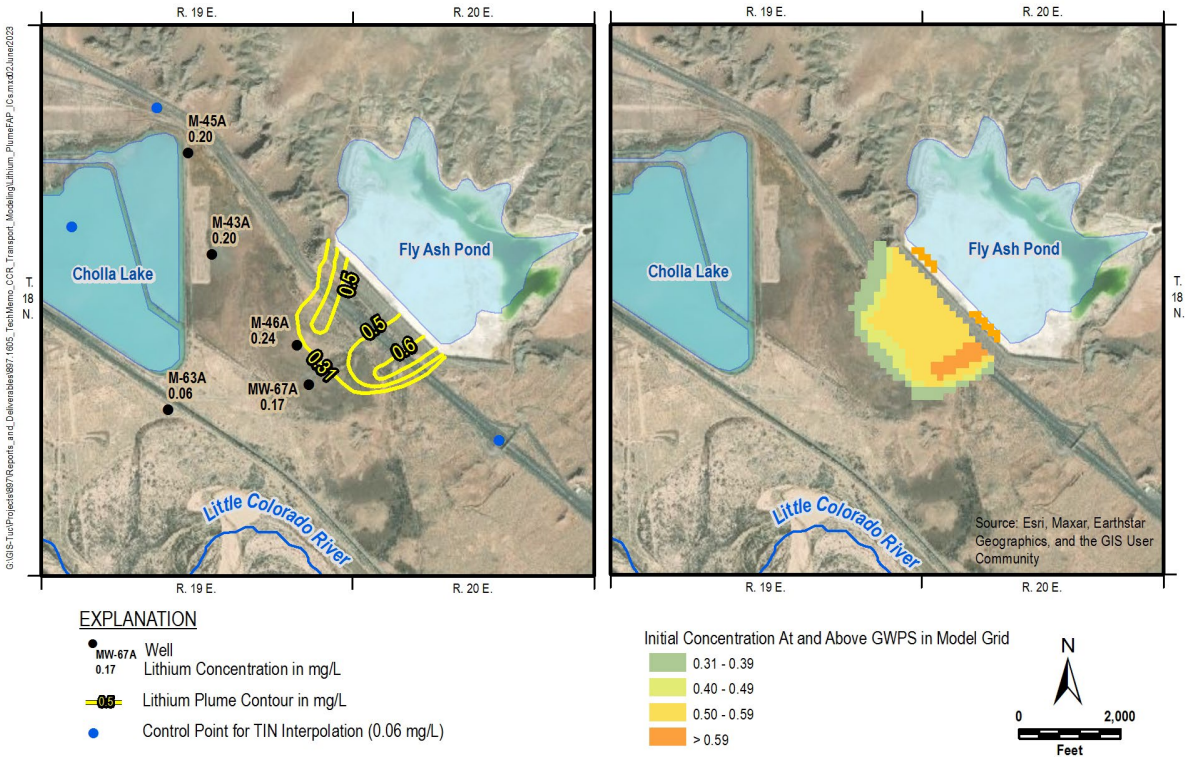

Figure 19. Initial Concentrations of Lithium in Model Layers 1 through 4

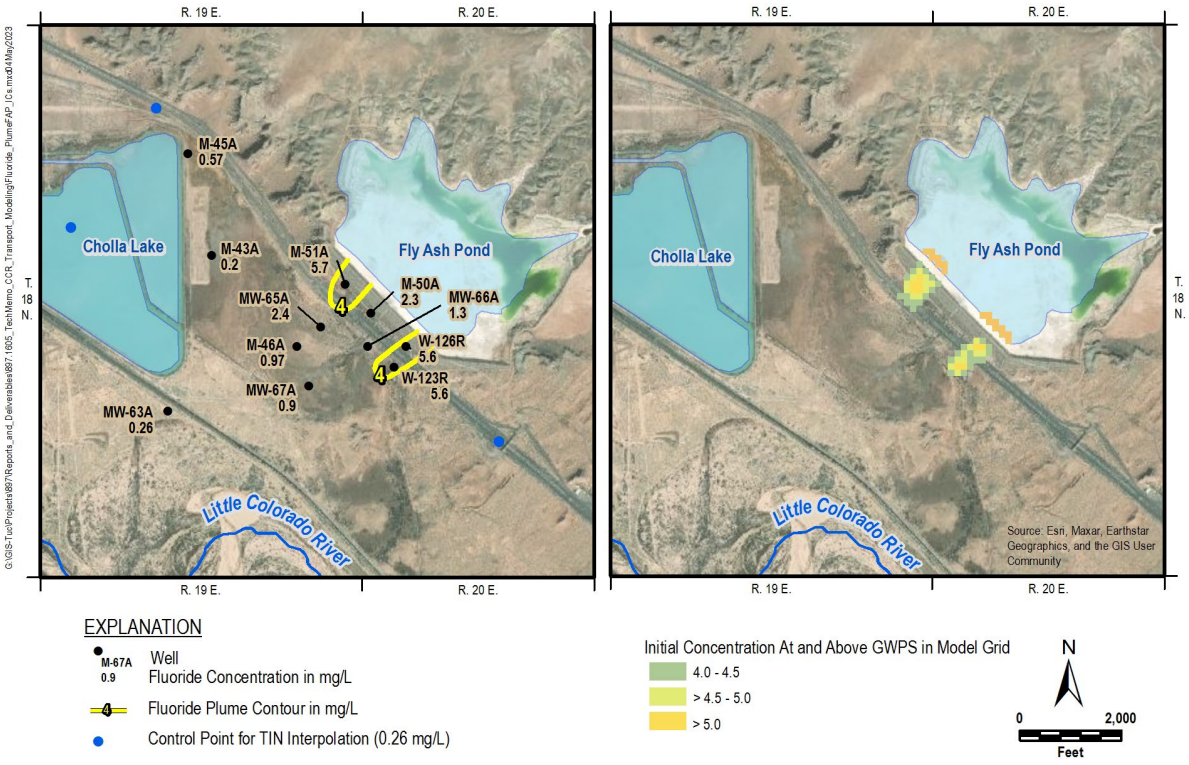

Figure 20. Initial Concentrations of Fluoride in Model Layers 1 through 4

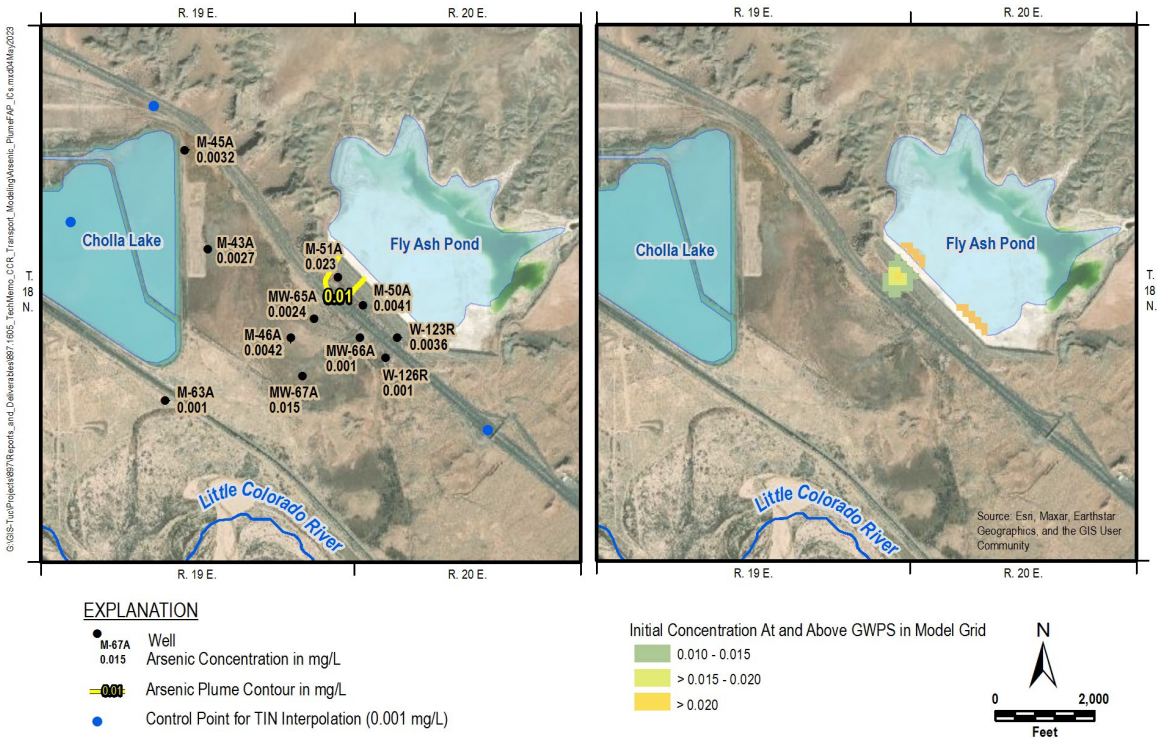

Figure 21. Initial Concentrations of Arsenic in Model Layers 1 through 4

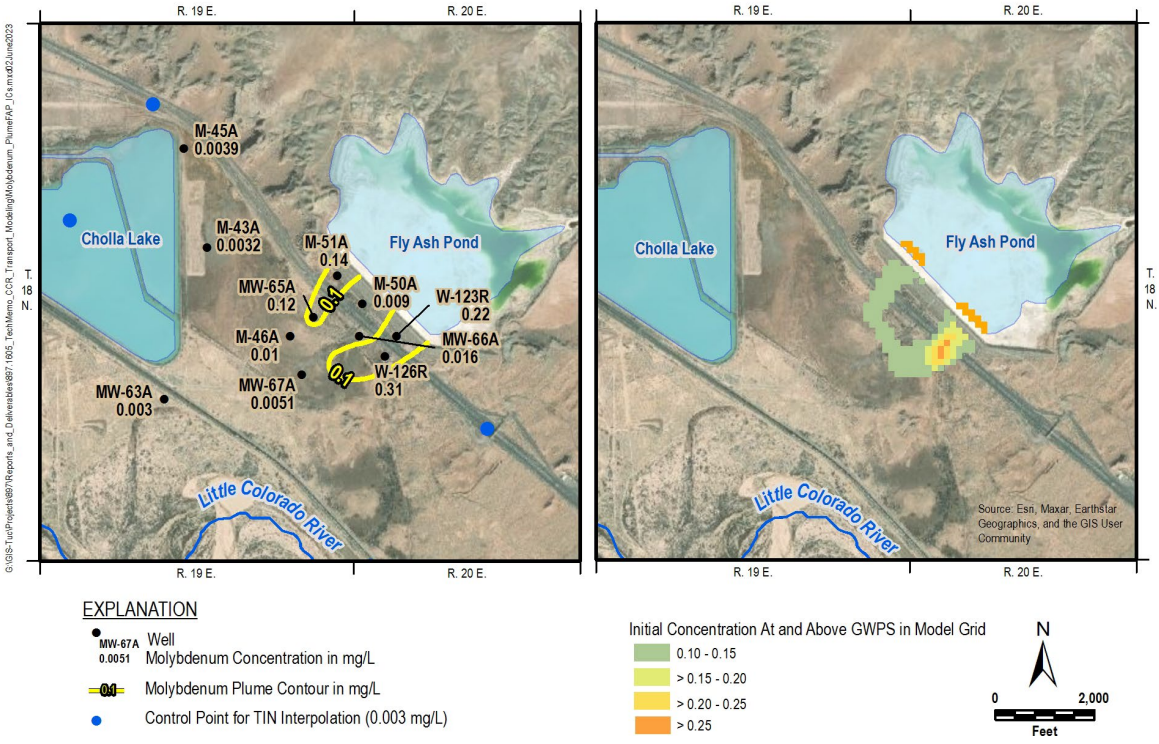

Figure 22.Initial Concentrations of Molybdenum in Model Layers 1 through 4

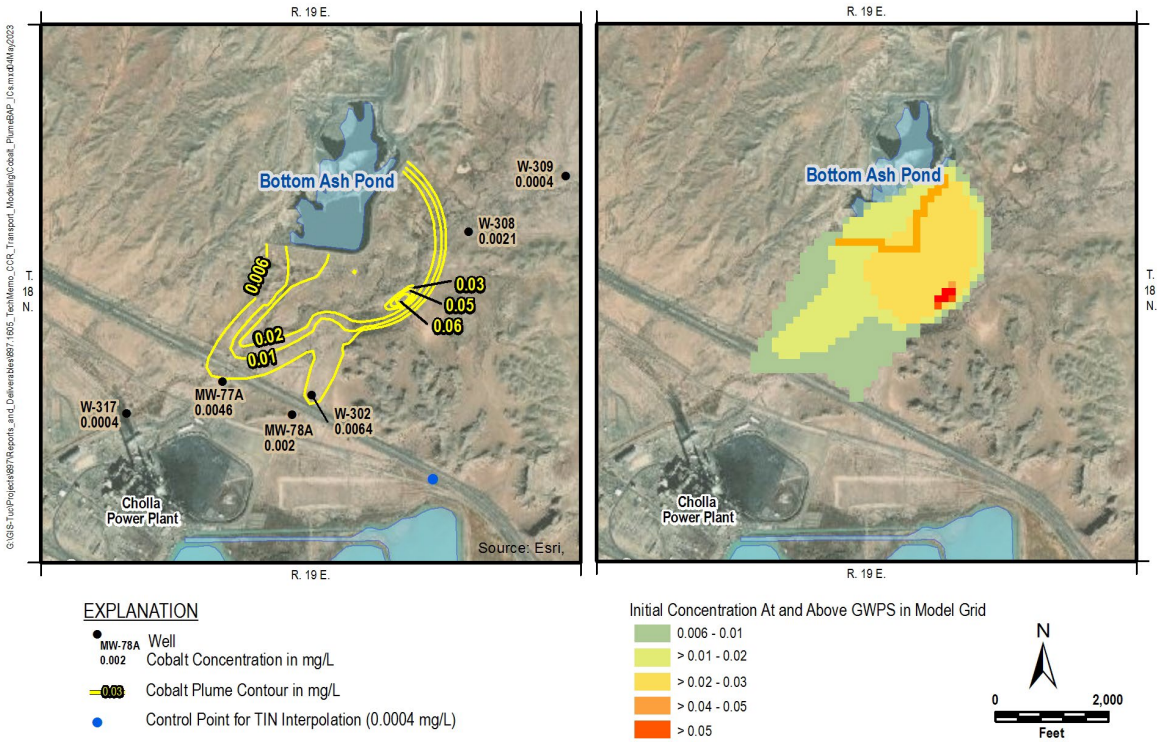

Figure 23. Initial Concentrations of Cobalt in Model Layers 1 through 4

Transport Parameters

Anisotropic dispersion was simulated by specifying longitudinal and transverse dispersivity in both the vertical and horizontal directions. Longitudinal dispersivity was set such that a parameter referred to as the Péclet number ($Pe = \Delta x/\alpha_L$) would be less than 2, as recommended for finite-difference models (Zheng and Bennett, 1995). With a horizontal model grid cell dimension of 125 feet (Δx), 100 feet for longitudinal dispersivity (α_L) is appropriate for the scale of the model based on Gelhar (Gelhar and Others, 1992). The Peclet number is appropriate given the selected dispersivity and grid cell dimension in the Study Area. The transverse dispersivity was 10 feet; 1 order-of-magnitude lower than the longitudinal dispersivity. Vertical, longitudinal, and transverse dispersivities are 1 order-of-magnitude lower than their respective horizontal components (Xu and Eckstein, 1995, Gelhar and others, 1992). Effective porosity was set to be 0.01 higher, as shown in Table 7 and on Figure 10.

PREDICTIVE SCENARIOS

The predictive simulations were conducted to evaluate the migration and attenuation of impacted groundwater after shutdown of plant operations and implementation of corrective actions for the FAP and BAP. Corrective actions already in progress to accelerate pond dry-up and collect residual water draining from within and below the footprints of the ponds are included in all

predictive scenarios and incorporated into the GHBs as described. Consideration of the following factors guided development of the predictive scenarios: remedial pumping to accelerate clean up, sorption impacts on plume migration (BAP only), and recharge impacts from Cholla Lake (mostly for FAP). Corrective action was simulated using hypothetical Alluvium extraction wells located in the area downgradient of the FAP and BAP. Sorption scenarios were conducted to evaluate impacts on cobalt cleanup time of sorption. Other scenarios were conducted to evaluate sensitivity of simulation results to Cholla Lake recharge and alternative pumping rates from Alluvium corrective action extraction wells. Table 11 summarizes the predictive scenarios conducted to evaluate shutdown and implementation of corrective action at the FAP, and Table 12 summarizes predictive scenarios at the BAP. Pumping rates for corrective action scenarios represent the assigned combined rate for all simulated extraction wells associated with each CCR Unit. Pumping rates are maintained at the 5 gpm rate for each corrective action well. If inflows plus existing water are less than the 5 gpm rate for that particular cell, the cell will become unsaturated.

Table 11. Predictive Scenarios for Fly Ash Pond COCs

FAP Scenarios	
Description	**Plume Alluvium Extraction**
Lithium - Base	NA
Lithium - 6 wells extracting at 5 gpm	30 gpm
Lithium – Base with no Cholla Lake post 2028	NA
Lithium – 3 wells extracting at 10 gpm	30 gpm
Molybdenum - Base	NA
Molybdenum - 6 wells extracting at 5 gpm	30 gpm
Fluoride - Base	NA
Fluoride - 6 wells extracting at 5 gpm	30 gpm
Arsenic - Base	NA
Arsenic - 6 wells extracting at 5 gpm	30 gpm

Table 12. Predictive Scenarios for Bottom Ash Pond COCs

BAP Scenarios		
Description	**Plume Alluvium Extraction**	**Sorption**
Cobalt - Base	NA	No
Cobalt - 14 wells extracting at 5 gpm	70 gpm	No
Cobalt – Base with no Cholla Lake post 2028	NA	No
Cobalt - Base with Sorption	NA	Yes
Cobalt - 14 wells extracting at 5 gpm with sorption	70 gpm	Yes
Cobalt - 44 wells extracting at 5 gpm with sorption	220 gpm	Yes

Base Scenario

The base scenario was developed to represent a point of comparison for other model scenarios, which were developed by making specific adjustments to the base scenario. The base scenario simulation of the 2021 plumes assumes containment of pond seepage starting in 2028. This scenario does not incorporate sorption or additional corrective action in the form of Alluvial extraction downgradient of the ponds. It also assumes Cholla Lake will continue to be present throughout the predictive period.

Corrective Action Scenarios

Alluvium extraction wells are added to the base scenario to evaluate impacts of potential corrective actions. Extraction wells are placed downgradient of the FAP and BAP to accelerate cleanup time of COCs. The cumulative extraction rate for corrective action wells in the Alluvium for both CCR Units is 100 gpm, with each well pumping at a rate of 5 gpm; 70 gpm is allocated to wells downgradient of the BAP and 30 gpm to wells downgradient of the FAP. Well locations were selected based on predictive results from the base scenario; locations were prioritized in areas with greater saturated Alluvium thickness and areas where greater migration of COCs was predicted.

Sorption Scenarios

The geochemical mechanism responsible for cobalt at the BAP is different from the mechanism for transport of COCs at the FAP. Cobalt is conceptualized to be redox controlled, with the primary mechanism being reducing conditions below and downstream of the BAP resulting in desorption of cobalt from iron and manganese oxides. Linear adsorption was assumed, and the partition coefficient (Kd) and bulk density (Pb) were assigned based on geochemical evaluation of the Alluvium sediments downgradient of the BAP. The parameter Kd was assigned a value of $9x10^{-6}$ liters per milligram (L/mg) (9 liters per kilogram [L/kg]) and Pb was assigned a value of $1.6x10^{6}$ mg/L (1.6 grams per milliliter [g/mL]).

Because sorption is conceptualized to be an important mechanism for cobalt transport, sorption is incorporated into the base scenario, the additional corrective action scenario with a combined extraction rate of 100 gpm, and the additional corrective action scenario with a combined extraction rate of 250 gpm. The additional corrective action scenario with a total Alluvium extraction rate of 250 gpm assumes 220 gpm downgradient of the BAP and 30 gpm downgradient of the FAP, with each well pumping at a rate of 5 gpm. This scenario was conducted to evaluate whether cleanup of cobalt with sorption can be accomplished using traditional capture and treatment approaches or whether active cleanup at the BAP is principally correlated with desaturation of the Alluvium sediments.

Other Scenarios

A scenario was conducted to evaluate the sensitivity of impacts to plume movement of Cholla Lake no longer receiving water after 2028 and thereby no longer contributing to Alluvium recharge. The no Cholla Lake recharge scenario has only diffuse recharge, no focused recharge from Cholla Lake, and eliminates pumping from the Coconino that is conducted to deliver water to Cholla Lake. Additionally, a scenario was conducted to evaluate the sensitivity of corrective action extraction downgradient of the ponds being conducted at a rate of 10 gpm instead of 5 gpm. This scenario simulated fewer wells pumping at a rate of 10 gpm to achieve the same combined total Alluvium extraction rate of 100 gpm as a comparison to the 5 gpm scenarios.

PREDICTIVE SCENARIO RESULTS

Predictive scenario cleanup time estimates are summarized in Table 13 for the FAP and Table 14 for the BAP.

For the FAP, cleanup time estimates range from less than 25 years for fluoride and arsenic to more than 100 years for lithium. Scenarios with 30 gpm total groundwater extraction from the LCR Alluvium downgradient from the FAP all have cleanup times less than 25 years, except for lithium, which is predicted to have a substantially longer cleanup time. Comparing the pumping rate of 5 gpm to 10 gpm does not result in a meaningful difference in cleanup time for lithium. Comparing the scenario with no Cholla Lake post 2028 to the base scenario shows that both result in a cleanup time of more than 100 years for lithium downgradient of the FAP.

Table 13. Summary of Cleanup Time Results for Fly Ash Pond Predictive Scenarios

FAP Scenarios		
Description	**Total FAP Alluvium Extraction**	**Estimated Cleanup Time**
Lithium – Base	NA	>100 years
Lithium – 6 wells extracting at 5 gpm	30 gpm	25 – 50 years
Lithium – Base with no Cholla Lake Post 2028	NA	>100 years
Lithium – 3 wells extracting at 10 gpm	30 gpm	25 – 50 years
Molybdenum – Base	NA	50 – 75 years
Molybdenum – 6 wells extracting at 5 gpm	30 gpm	< 25 years
Fluoride – Base	NA	< 25 years
Fluoride – 6 wells extracting at 5 gpm	30 gpm	< 25 years
Arsenic – Base	NA	< 25 years
Arsenic – 6 wells extracting at 5 gpm	30 gpm	< 25 years

For the BAP, cleanup time estimates for cobalt scenarios range from 50 to 75 years to more than 100 years. The scenario with 70 gpm total groundwater extraction from the Tanner Wash Alluvium downgradient from the BAP and no sorption has the most rapid predicted cleanup time, 50 – 75 years. Although the scenario with 220 gpm total groundwater extraction is also predicted to clean up in 50 to 75 years, the mechanism is dewatering of the aquifer rather than actual clean up, as described below. Predictive scenarios with sorption have substantially longer cleanup times than those without sorption. Comparing the scenario with no Cholla Lake post 2028 to the base scenario shows that both result in a cleanup time of more than 100 years.

Table 14. Summary of Cleanup Time Results for Bottom Ash Pond Predictive Scenarios

BAP Scenarios			
Description	**Total Tanner Wash Alluvium Extraction**	**Sorption**	**Estimated Cleanup Time**
Cobalt - Base	NA	No	> 100 years
Cobalt - 14 wells extracting at 5 gpm	70 gpm	No	50 – 75 years
Cobalt – Base with no Cholla Lake Post 2028	NA	No	> 100 years
Cobalt - Base with Sorption	NA	Yes	> 100 years
Cobalt - 14 wells extracting at 5 gpm with Sorption	70 gpm	Yes	> 100 years
Cobalt - 44 wells extracting at 5 gpm with Sorption	220 gpm	Yes	50 – 75 years

The predicted water level elevation distribution is shown for the FAP on Figure 24 and for the BAP on Figure 29. The base and corrective action scenario predicted concentration distributions for the 4 FAP COCs, along with the distribution of saturated cells are shown on Figure 25 through Figure 28. The base and corrective action scenario predicted concentration distributions for cobalt with and without sorption downgradient of BAP are shown on Figure 30 through Figure 32. All figure panels show results at 1 year, 25 years, 50 years, and 100 years into the predictive period.

For the FAP, there is a steep water level gradient in 2022 (1 Year), with water levels stacking up downgradient from the FAP as water continues to discharge to the Alluvium. The predictive results show water levels closer to the FAP dropping over time from about 50 feet higher than water levels near the LCR in 2022 to about 10 feet higher in 2122 for the base scenario once FAP seepage is removed. In the corrective scenario, water levels drop more rapidly and some cells near the FAP dam are dry. COC concentrations decline and generally move downgradient toward the LCR. Concentrations decline more quickly with corrective action, particularly for lithium which is the constituent with the largest area above the GWPS in 2021. As such, lithium has a longer clean up time compared to the other FAP COCs, followed by molybdenum. Arsenic and fluoride concentrations drop below the GWPS quickly in both the base scenario and the corrective action scenario.

There is a relatively steep gradient between the BAP dam and the Tanner Wash Alluvium in 2022 (1 Year) in response to continued seepage from the pond. Water levels decline more rapidly after BAP close-out for the corrective action scenario compared with the base scenario. For the cobalt scenarios without sorption, concentrations are predicted to decline and slowly and move downgradient toward the LCR. For scenarios with sorption, concentrations persist and only minimal reductions are observed in cells that remain saturated. Simulated cleanup of cobalt with sorption is principally correlated with desaturation of the Alluvium sediments due to the cessation of discharge from the BAP and, in the case of corrective action, active extraction in the downgradient plume area.

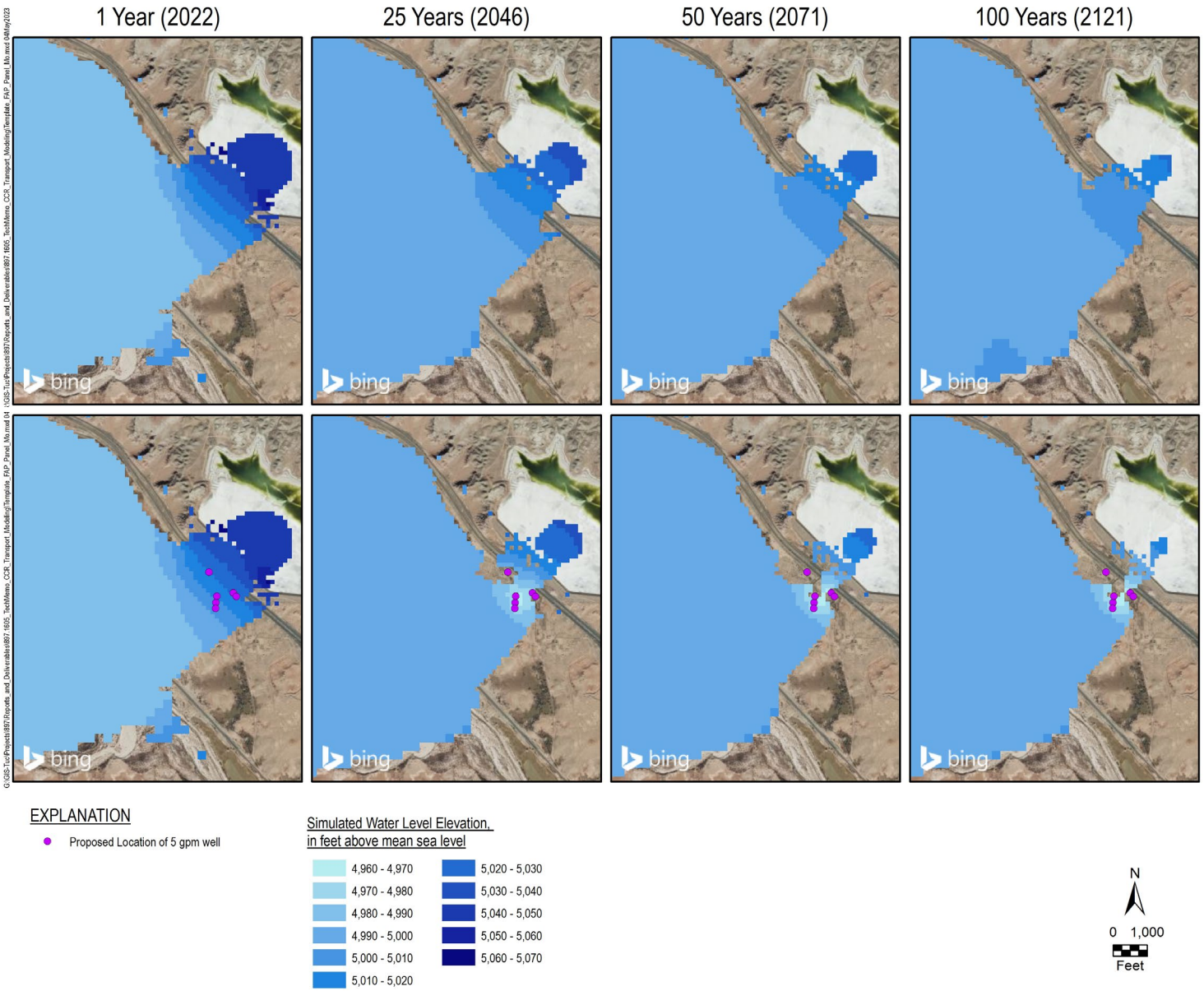

Figure 24. Simulated Heads for Base Scenario (Top) and Corrective Action at 30 gpm (Bottom) Near the FAP

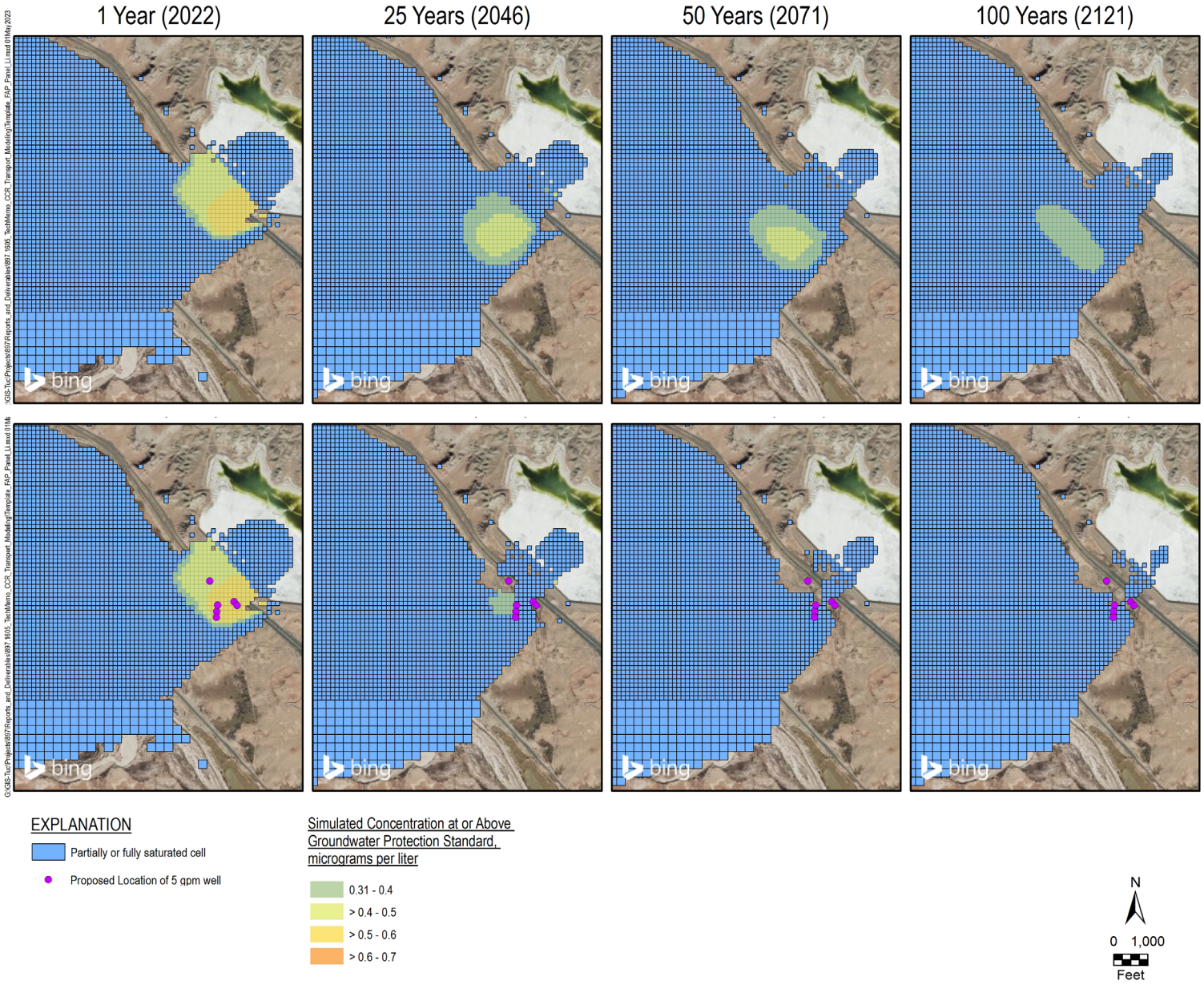

Figure 25. Lithium Base Scenario (Top) and Corrective Action at 30 gpm Scenario (Bottom) Near the FAP

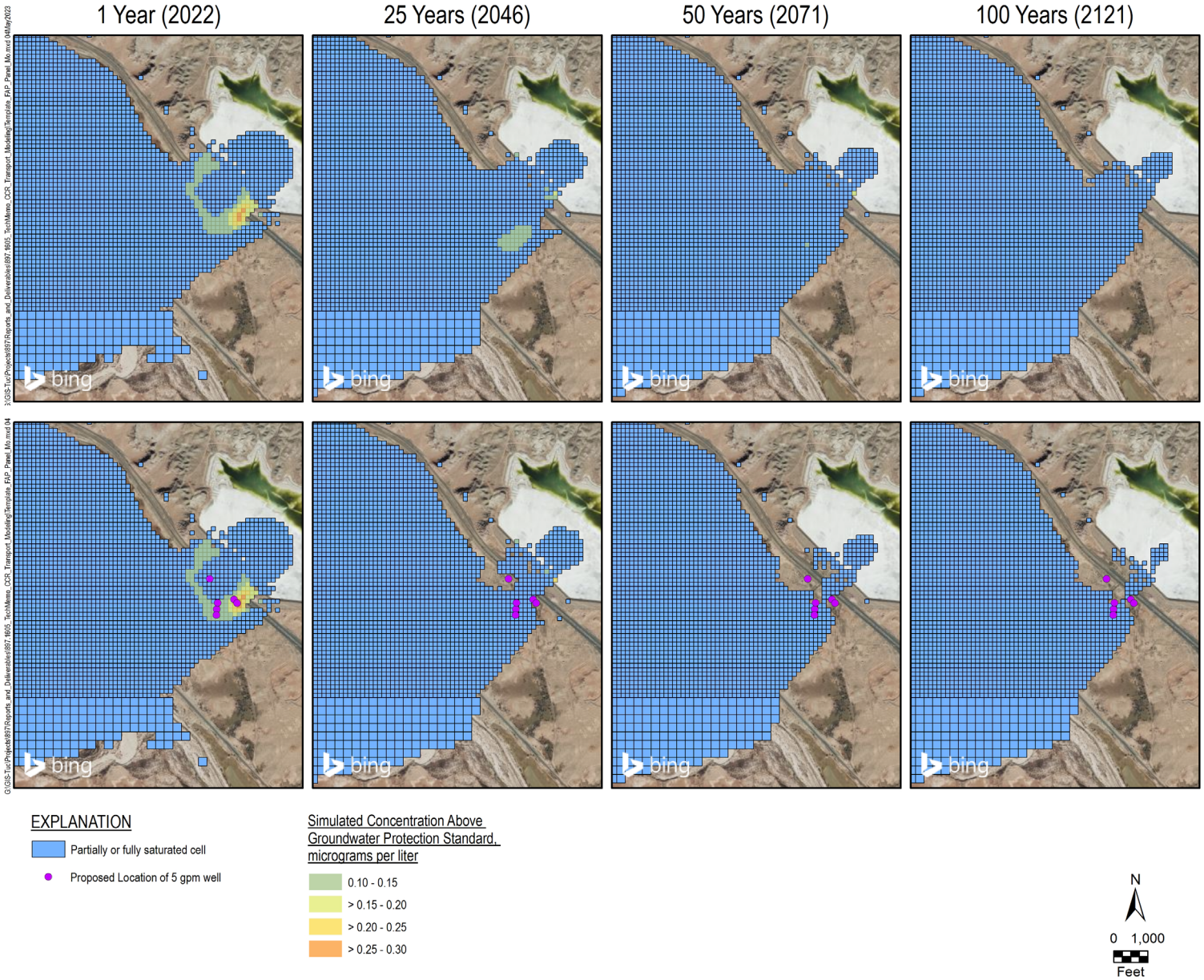

Figure 26. Molybdenum Base Scenario (Top) and Corrective Action at 30 gpm Scenario

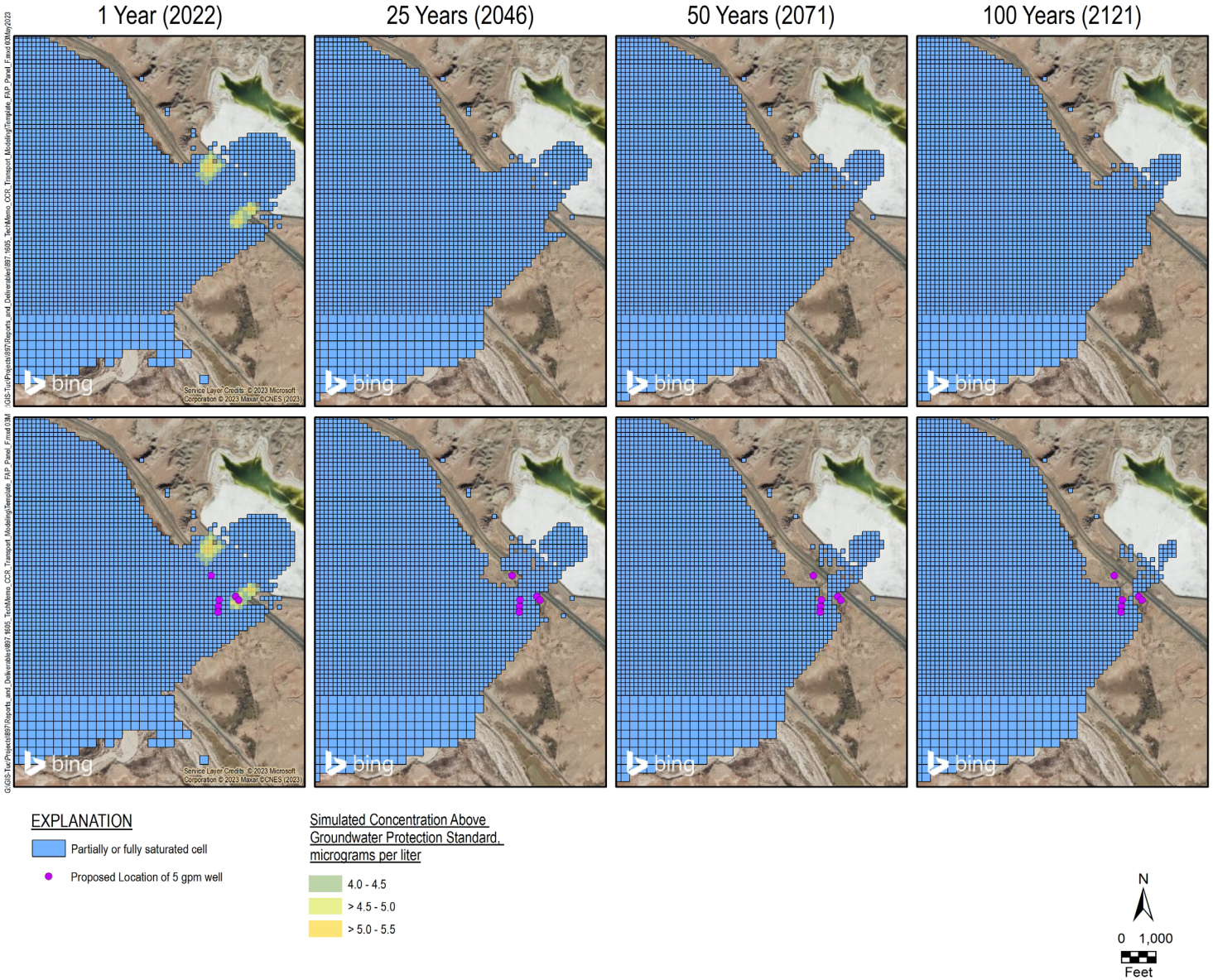

Figure 27. Fluoride Base Scenario (Top) and Corrective Action at 30 gpm Scenario (Bottom) Near the FAP

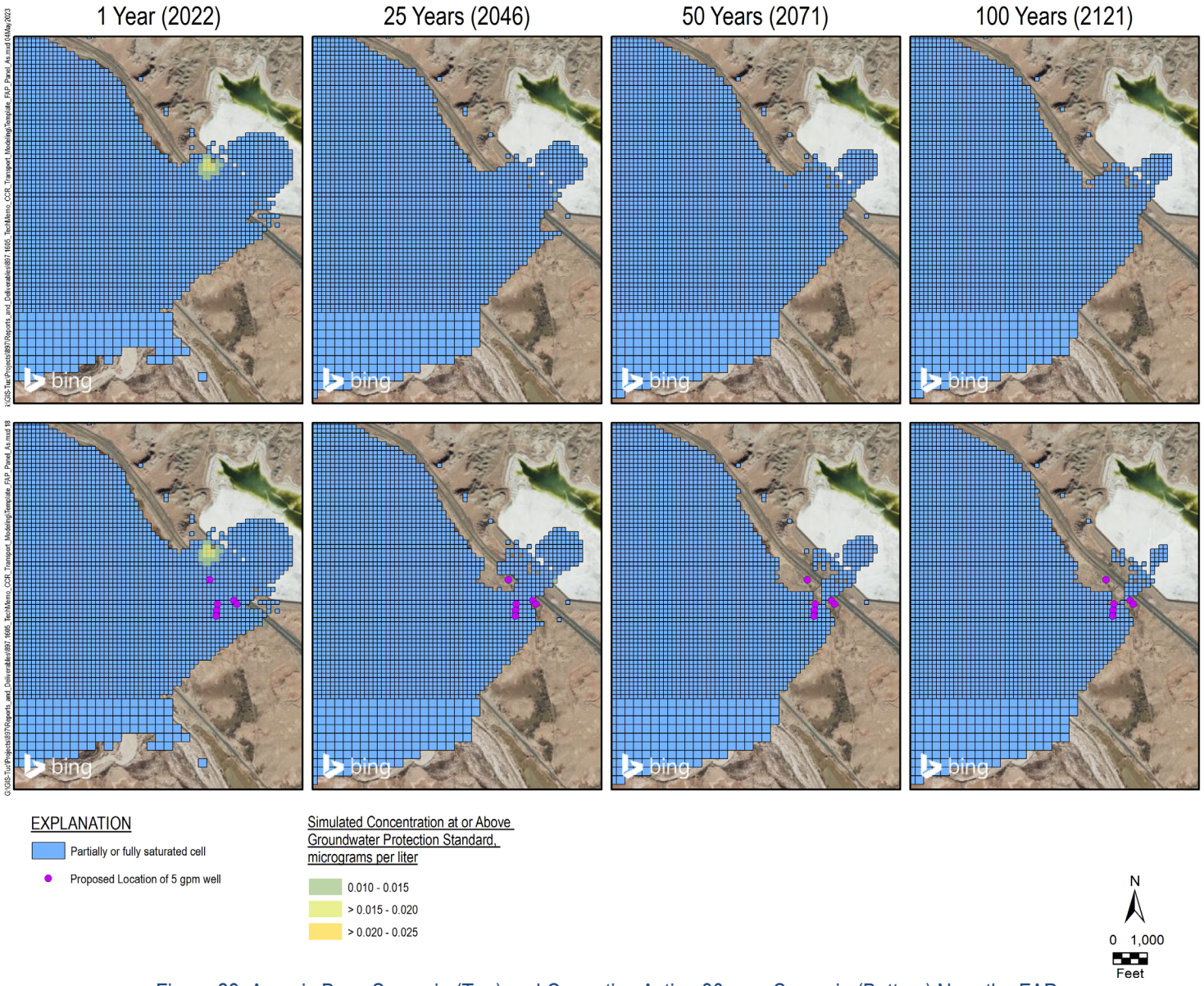

Figure 28. Arsenic Base Scenario (Top) and Corrective Action 30 gpm Scenario (Bottom) Near the FAP

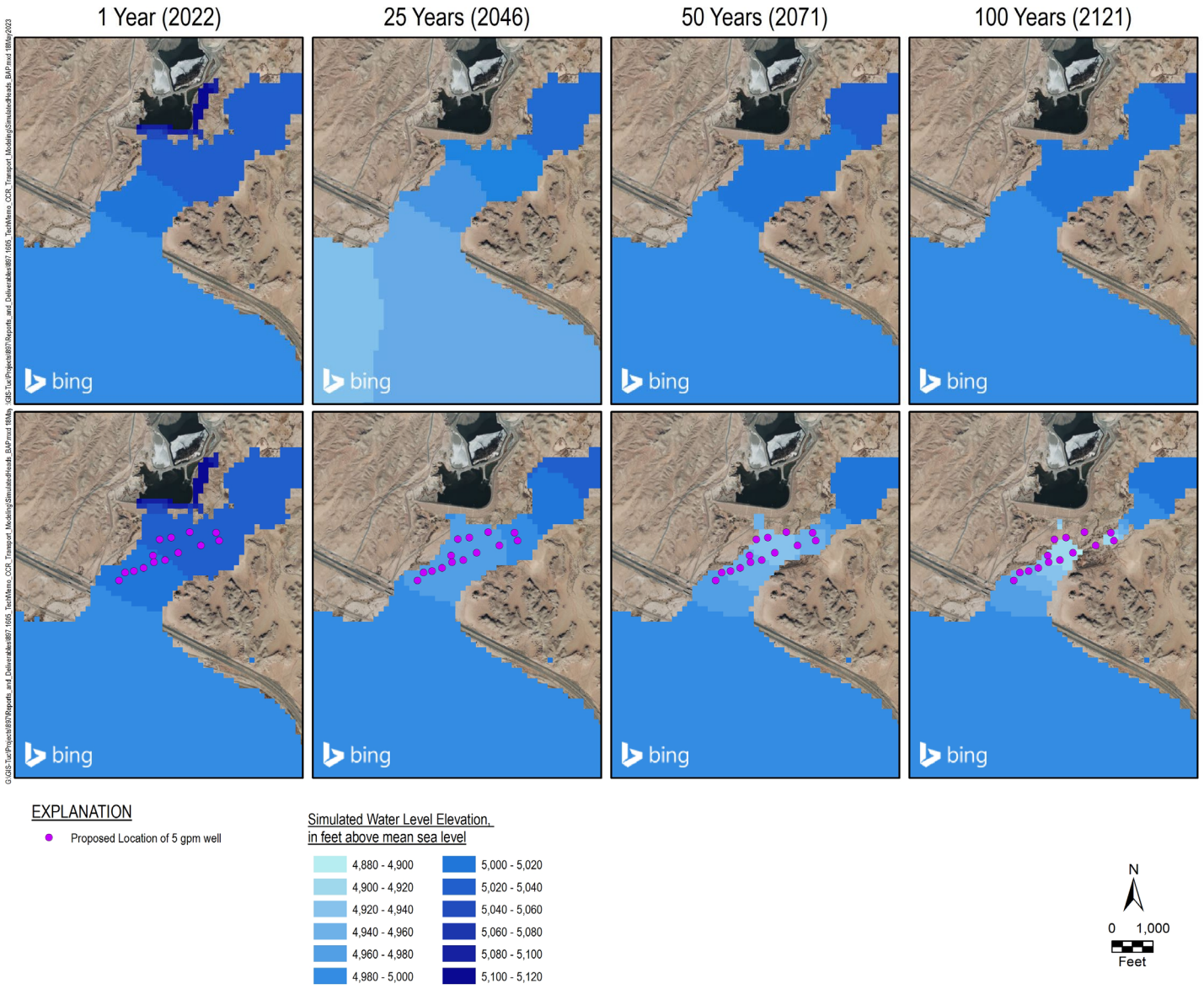

Figure 29. Simulated Heads for Base Scenario (Top) and Corrective Action at 70 gpm (Bottom) Near the BAP

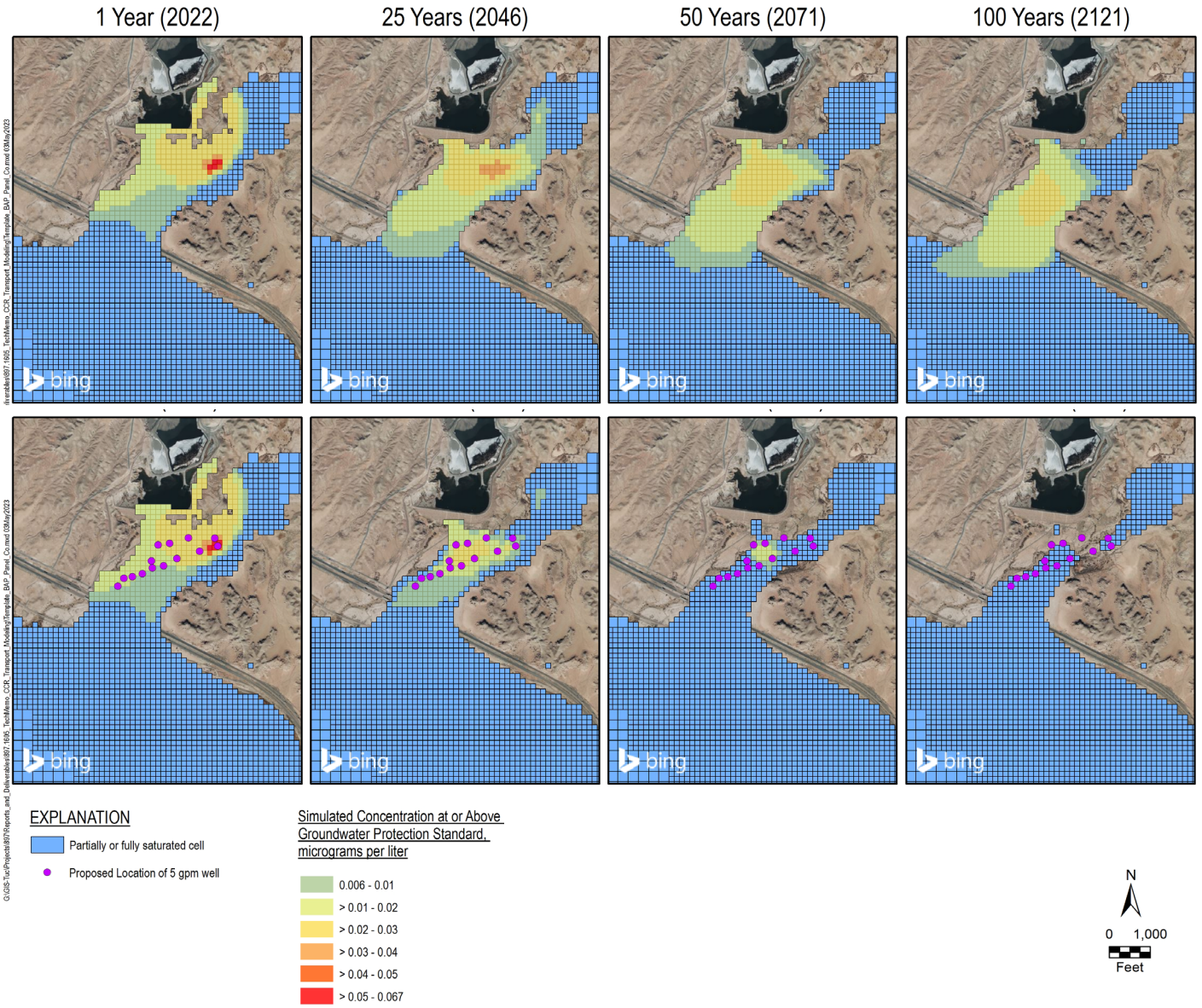

Figure 30. Cobalt Base Scenario (Top) and Corrective Action at 70 gpm Scenario (Bottom) Near the BAP

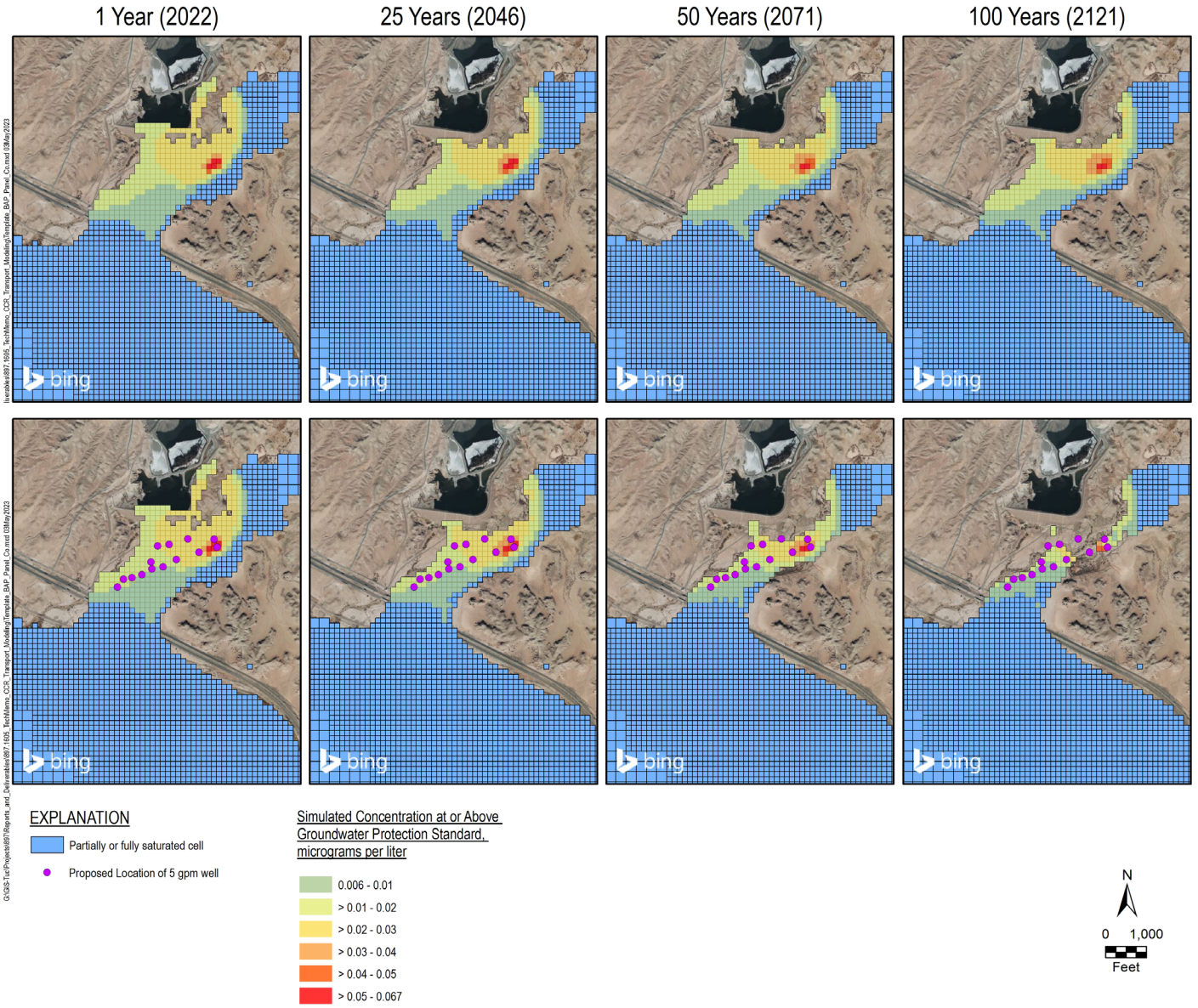

Figure 31. Cobalt with Sorption: Base Scenario (Top) and Corrective Action at 70 gpm Scenario (Bottom) Near the BAP

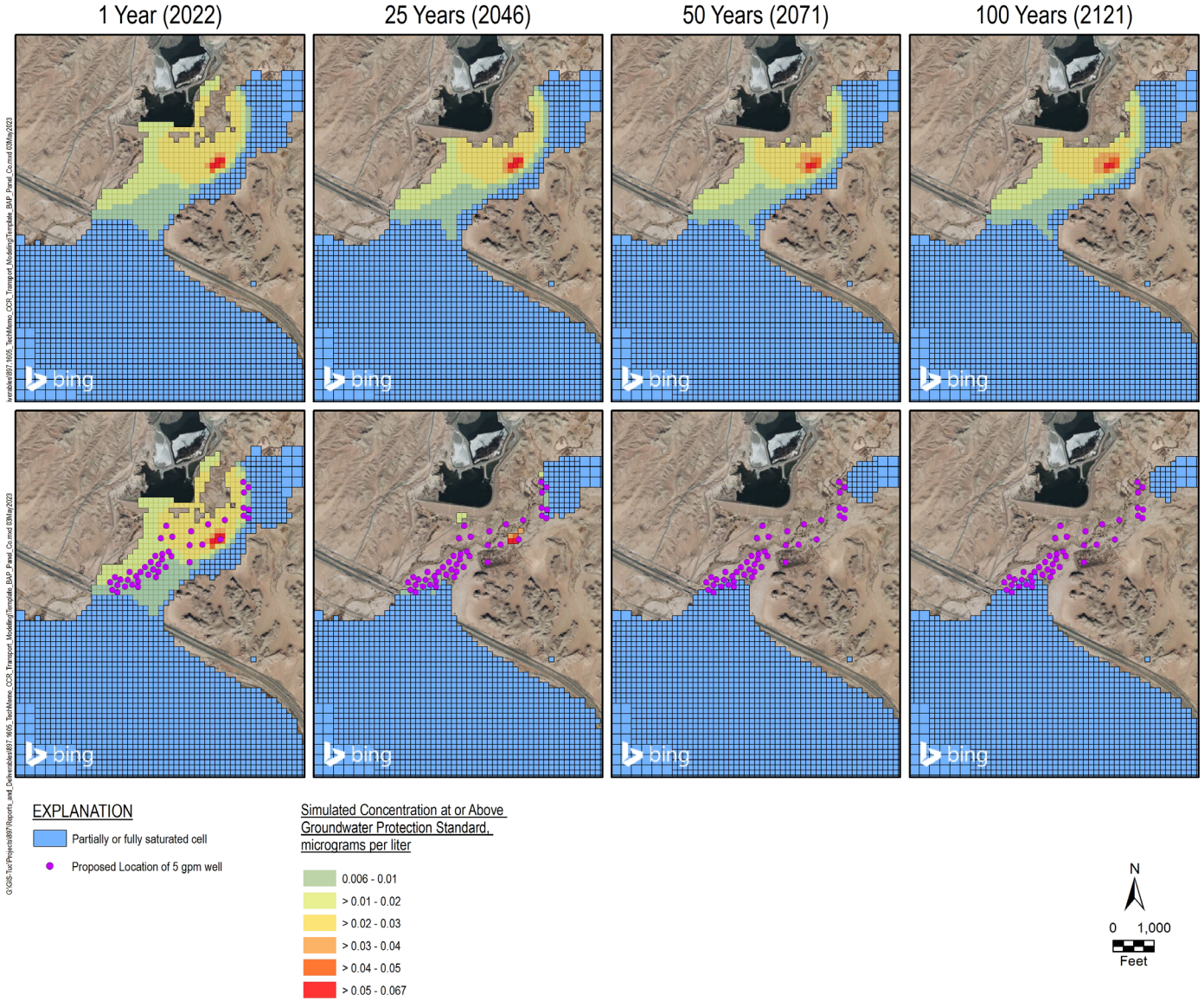

Figure 32. Cobalt with Soprtion: Base Scenario (Top) and Corrective Action at 220 gpm Scenario (Bottom) Near the BAP

UNCERTAINTIES

Model parameter uncertainties are always a factor in deterministic models, and while the Cholla groundwater flow model is deemed to be well calibrated relative to project objectives, other plausible parameter distributions exist. A systematic sensitivity analysis was conducted to evaluate a wide range of parameter values that resulted in models with equal or improved calibration statistics. The final model calibration used for the CCR model was selected based on its overall ability to simulate observed conditions within the context of the project objectives.

Additional uncertainties that would potentially impact model results include recharge along and near Tanner Wash, cobalt adsorption assumptions, GHB conductance and shutdown processes, and assumed sustainable pumping rates from Alluvium extraction wells. These individual sources of uncertainty are discussed below.

Focused recharge rates along Tanner Wash and at stock ponds were estimated to aid in improving the water level calibration in the Tanner Wash Alluvium; however, there are no data available on measured Tanner Wash and stock pond recharge rates. Potential differences between assumed and actual recharge rates could impact the amount of water available to dilute the existing plume and/or be pumped from Alluvium extraction wells.

The presence of cobalt is conceptualized to be redox controlled, with the primary mechanism for its occurrence and distribution being reducing conditions below and downstream of the BAP that result in desorption of cobalt from iron and manganese oxides in the aquifer sediments. There is uncertainty in simulating this complex geochemical reaction using the relatively simple process of adsorption/desorption. Additionally, there is uncertainty within the adsorption parameters applied in the model, including linear vs non-linear sorption, bulk density, and distribution coefficient. The assumed uniform distribution of sorption parameters across the flow field is also uncertain.

Pumping rates as well as numbers and locations of simulated Alluvium extraction wells were developed based on information on yields from short term tests and review of saturated thickness and the base scenario predictive plume distributions. Locations were tested and modified to enhance cleanup time of the plumes. That said, there is significant uncertainty in actual well by well sustainable pumping rates and the combined pumping volume from the Tanner Wash or LCR Alluvial Aquifers that can be achieved over time.

Finally, uncertainty in the GHBs, particularly for the shutdown and post shutdown period, is worth noting. The GHBs were developed during the calibration process and, while non-unique, are representative of known conditions.

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APPENDIX

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ADWR WELLS 55 REGISTRY DATABASE REVIEWS FOR 2024

ADWR Well Registry Review Q1 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GP	Pump Data Availabl	Completion Repo	Log Receivec	WSP Notes
085087		A17020010BCD	TURLEY, BRENT,	EXEMPT	85	30	7	10/1/1980	7/11/1980	18	300	NO			
085104		A17019012ADA	JOHNSON,M D	EXEMPT	200	68	6	11/3/1980	9/24/1997	40	30	NO	X	X	
085257		A17020007DAB	MEIKLE & RUSSELL,	EXEMPT	175	58	6	1/1/1980	9/24/1997	80	0	NO			
085748		A18019022ACC	RANDALL,D S	EXEMPT	365	365	8	8/29/1980	9/24/1980	74	0	NO			
085794		A18020033BAD	ERKKILA,W O	EXEMPT	200	140	6	1/1/1980	9/24/1997	100	0	NO			
086109		A18019023000	ARIZONA PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086110		A18019023000	AZ PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086111		A18019023000	AZ PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086112		A18019023000	AZ PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086141		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	88	88	14	1/1/1980	9/24/1997	25	0	NO	A		
086142		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	87	87	14	1/1/1980	9/24/1997	25	0	NO	A		
086143		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	90	90	14	1/1/1980	9/24/1997	25	0	NO	A		
086144		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	83	83	14	1/1/1980	9/24/1997	25	0	NO	A		
086145		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	80	80	14	1/1/1980	9/24/1997	25	0	NO	A		
086146		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	86	86	14	1/1/1980	9/24/1997	25	0	NO	A		
086147		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	85	85	14	1/1/1980	9/24/1997	25	0	NO	A		
086148		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	83	83	14	1/1/1980	9/24/1997	25	0	NO	A		
086149		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	90	90	14	1/1/1980	9/24/1997	25	0	NO	A		
086150		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	87	87	14	1/1/1980	9/24/1997	25	0	NO	A		
086151		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	63	63	14	1/1/1980	9/24/1997	25	0	NO	A		
086152		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	42	42	14	1/1/1980	9/24/1997	0	0	NO	A		
086153		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	45	45	14	1/1/1980	9/24/1997	45	0	NO	A		
086184		A18020033CAC	ECBERT,A	NON-EXEMPT	165	75	6	1/1/1980	9/24/1997	65	0	NO			
087057		A17020007BCA	SARAH V. HANCOCK	EXEMPT	175	60	6	6/27/1981	8/1/1981	85	0	NO	X	X	
204270		A18020034BBB	RANDY MURPH	NON-EXEMPT	240	100	8	3/13/2005	7/8/2004	41		NO		X	
205717		A18019022DDB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					10/29/2004			NO			
205718		A18019022DCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					10/29/2004			NO			
205719		A18019023CCA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	47	45	4	3/9/2005	10/29/2004	34		NO		X	
205720		A18019023CCA	ARIZONA PUBLIC SERVICE CO	MONITOR	47	45	2	3/9/2005	10/29/2004	35		NO	A	X	
207696		A17020007AAA	JACK R PICKETT JR	EXEMPT	175	60	6	5/29/2005	5/4/2005	67	16	NO	X	X	
207948		A17020005CCC	MARIBEL LUNA	EXEMPT	160	54	6	7/18/2005	6/20/2005	46		NO		X	
211590		A18020033BDD	RAYMOND H TURLEY	EXEMPT	250	137	7	6/3/2006	3/24/2006	100		NO	X	X	
212756		A18020033CDA	WILLIAM WIEGAND	EXEMPT	160	93	5	7/19/2006	7/3/2006	70	13	NO	X	X	
214839		A18019023CBD	KLEINFELDER, INC	OTHER								NO			App date 3/7/2007, denied app for specialty well
215327		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	32	30	5	4/25/2007	3/30/2007	19		NO		X	
215328		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	32	30	5	4/24/2007	3/30/2007	19		NO		X	
215329		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	32	30	5	4/24/2007	3/30/2007	19		NO		X	
215330		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	30	29	5	4/26/2007	3/30/2007	19		NO		X	
215331		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	30	28	5	4/25/2007	3/30/2007	19		NO		X	
215540		A18019023CCA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR				6/12/2009	4/26/2007			NO		X	
215541		A18019023CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	50	50	5	6/13/2007	4/26/2007	38		NO		X	
217762		A18019016CCA	DELWIN OR EVELYN SOLOMON	NON-EXEMPT	400	400	8	9/18/2008	5/8/2008	45	400	NO	X	X	
220206		A18019023CDB	ARIZONA PUBLIC SERVICE	OTHER					10/15/2010			NO			
220297		A17020010DAA	CITY OF HOLBROOK	NON-EXEMPT	200	41	16	5/13/2011	12/30/2010	20	1400	NO	X	X	
220453		A18019023C00	ARIZONA PUBLIC SERVICE COMPANY	OTHER	0	0	0	11/9/2011	3/22/2011	42		NO		X	
220454		A18019022DD0	ARIZONA PUBLIC SERVICE COMPANY	OTHER	0	0	0	11/10/2011	3/21/2011	40		NO		X	
221778		A18019023CDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	62	60	4	11/6/2012	10/12/2012	42		NO		X	
221779		A18019023CDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	62	60	4	11/6/2012	10/12/2012	42		NO		X	
221780		A18019023CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	62	60	4	11/7/2012	10/15/2012	42		NO		X	
226669		A18018010CCC	ANTONIO & CYNTHIA JAQUEZ	MONITOR					12/7/2016			NO			
231033		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
231034		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
231035		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
231036		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR					8/26/2019			NO	A		
231037		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
232663		A17019003BBB	EL PASO NATURAL GAS COMPANY, LLC., A KINDER MORGAN COMPANY	OTHER	20	490	12	9/2/2020	7/25/2020			NO	A	X	
233176		A18019016DCB	THRIFTWAY MARKETING CORPORATION	MONITOR								NO			App date 10/18/2020, marked as denied
233177		A18019016CDA	THRIFTWAY MARKETING CORPORATION	MONITOR								NO			App date 10/18/2020, marked as denied
233178		A18019016CAD	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233179		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020
233180		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233181		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, Denied 12/13/2020
233182		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233183		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233184		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020. Denied as of 12/23/2020
233185		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, Denied 12/13/2020
233186		A18019016CAD	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233187		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233264		A17019012DAD	ARIZONA PUBLIC SERVICE COMPANY	EXEMPT	390	79	7	12/16/2020	10/30/2020	92		NO		X	
233265		A18019028CCD	ARIZONA PUBLIC SERVICE	EXEMPT	247	148	7	12/16/2020	10/30/2020	22		NO		X	
233713		A18019016DCB	THRIFTWAY MARKETING CORPORATION	MONITOR	28	28	2	2/22/2021	1/27/2021			NO		X	ADWR records sent to APS in 2021 Q4
233714		A18019016CDA	THRIFTWAY MARKETING CORPORATION	MONITOR	28	28	2	2/24/2021	1/27/2021			NO		X	ADWR records sent to APS in 2022 Q1 after expanded area of review
236622		A17020011AAC	ALEX W & JENNIE B HATCH	EXEMPT					3/28/2022			NO		X	Drill authority issued 4/15/22 - Updated Records were added to ADWR as of 7/06/22 Well Review. Sent to APS
238560		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	111	99	2	5/25/2023	3/30/2023	22		NO		X	No records available as of 2023 Q2
238561		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	65	64	4	5/23/2023	3/30/2023	18		NO		X	No records available as of 2023 Q2
238562		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	113	112	4	5/23/2023	3/30/2023	24		NO		X	No records available as of 2023 Q2
238563		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	67	66	4	5/9/2023	3/30/2023	20		NO		X	No records available as of 2023 Q2
238564		A18020030CAB	ARIZONA PUBLIC SERVICE	MONITOR	113	110	2	5/19/2023	3/30/2023	27		NO		X	No records available as of 2023 Q2
238565		A18020030CAB	ARIZONA PUBLIC SERVICE	MONITOR	100	96	2	5/22/2023	3/30/2023	22		NO		X	No records available as of 2023 Q2
238566		A18020030CAB	ARIZONA PUBLIC SERVICE	OTHER	112			5/15/2023	3/30/2023			NO	A	X	No records available as of 2023 Q2
239280		A18019016DBC	THRIFTYWAY MARKETING CORPORTION	OTHER	27				7/11/2023			NO	A		
239455		A18019016DBC	THRIFTWAY MARKETING CORPORATION	OTHER					8/4/2023			NO			
482933		A18019028CCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	220	148	7	12/16/2020	7/23/2020	22		NO		X	
482992		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	51	46	1		4/29/2021			NO	A		
482994		A18020030BDB	ARIZONA PUBLIC SERVICE	MONITOR	76	76	1		4/29/2021			NO	A		
482995		A18020030BDB	ARIZONA PUBLIC SERVICE	MONITOR	56	55	1		4/29/2021			NO	A		
500636		A17020004BD0	SCHADE,J	NON-EXEMPT	250	70	8	1/1/1981	9/24/1997	20	0	NO	X	X	
500712		A17020007CBD	NEWMAN AND JESSICA JOHN	EXEMPT	215	80	5	9/18/1981	8/17/1981	0	0	NO	C	X	
500726		A17020007CBA	JOHN HARDY	EXEMPT	195	80	5	8/21/1981	8/18/1981	49	75	NO	X	X	
501812		A17020010BDC	SHUMWAY,D	EXEMPT	100	39	6	5/1/1982	1/19/1982	24	0	NO	C	X	
502100		A18019016DDC	BARRETT,W W	EXEMPT	280	245	5	9/22/1982	2/23/1982	35	35	NO	X	X	
502294		A17020007ABB	ROBERT L. AND SYLVIA A. VARIAN	EXEMPT	270	229	6	4/1/1982	3/16/1982	20	0	NO	X	X	
502410		A17020010CCC	FERGUSON,M E	NON-EXEMPT	0	0	0		3/19/1982	0	0	NO			
502455		A18019016DDC	RANDALL,D	NON-EXEMPT	0	0	0		3/25/1982	0	0	NO			
502730		A17020007BBC	GERALD F BRIGGS	EXEMPT	160	57	5	8/20/1982	4/30/1982	90	0	NO	C	X	
503829		A17020010CCB	FRED & GAIL JOE	EXEMPT	200	200	0		8/26/1982	60	0	NO	X	X	
503847		A17020007CCC	EDWIN & BRENDA BURROUGHS	EXEMPT	200	79	8	5/8/1983	8/30/1982	37	0	YES	C	X	

ADWR Well Registry Review Q1 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GP	Pump Data Availabl	Completion Repo	Log Receive	WSP Notes
503848		A17020007BBB	EDWIN & BRENDA BURROUGHS	EXEMPT	200	79	8	4/22/1983	8/30/1982	51	0	YES	C	X	
503984		A18020033DAC	SCHADE,J	EXEMPT	200	201	6	10/14/1982	9/21/1982	90	0	NO	X	X	
504944		A17019012DCA	JANKA,D	EXEMPT	200	70	7	6/20/1983	3/9/1983	57	0	NO	C	X	
505119		A180190166DDC	RANDALL, A BLAINE,	NON-EXEMPT	450	280	12	8/15/1983	4/5/1983	40	800	NO	X	X	
505356		A17020007BDD	MYERS, JOHN JR,W	NON-EXEMPT	0	0	0		5/10/1983	0	0	NO			
505455		A17019012ADC	ALLEN,C G	EXEMPT	200	69	6	6/1/1983	5/23/1983	70	24	NO	X	X	
505634	345312110122501	A17020010ACC	HOLBROOK, TOWN OF,	NON-EXEMPT	105	87	12	7/1/1983	6/14/1983	13	1450	YES	X	X	
506364		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	108	104	5	10/7/1983	9/21/1983	22	0	NO	N	X	
506365		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	54	54	5	10/11/1983	9/21/1983	20	0	NO	N	X	
506366		A18019024BBD	ARIZONA PUBLIC SERVICE	EXEMPT	118	65	5	10/21/1983	9/21/1983	26	0	NO	A	X	
506367		A18019013DBD	AZ PUBLIC SERVICE,	EXEMPT	93	84	5	10/14/1983	9/21/1983	45	0	NO	N	X	
506368		A18019013CDD	AZ PUBLIC SERVICE,	EXEMPT	93	75	5	10/19/1983	9/21/1983	32	0	NO	N	X	
506369		A18019023AAC	AZ PUBLIC SERVICE,	EXEMPT	39	0	0	10/26/1983	9/21/1983	0	0	NO	N	X	
506370		A18019023ADA	AZ PUBLIC SERVICE,	EXEMPT	159	58	5	10/26/1983	9/21/1983	29	0	NO	N	X	
506371		A18019023DAB	AZ PUBLIC SERVICE,	EXEMPT	54	47	5	11/1/1983	9/21/1983	37	0	NO	N	X	
506372		A18019023ACA	AZ PUBLIC SERVICE,	EXEMPT	94	65	5	10/4/1983	9/21/1983	32	0	NO	N	X	
506586		A18019023ABB	ARIZONA PUBLIC SERVICE COMPANY	OTHER	58	58	5	11/2/1983	11/1/1983	36	0	NO	N	X	
506587		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	40	35	5	11/4/1983	11/1/1983	3	0	NO	A	X	
507508		A17020007BDA	PENROD, JOHNNY,E	NON-EXEMPT	195	70	7	5/15/1984	3/20/1984	49	14	NO	X	X	
508359		A17020007AAA	JANSEN,H	EXEMPT	0	0	0		6/12/1984	0	0	NO			
509947		A17019012BAC	BELSHE,M T	EXEMPT	166	166	6	12/26/1984	12/20/1984	90	28	NO	X	X	
510154		A17020010CBB	BISSONNETTE & SMITH	EXEMPT	98	40	6	6/5/1985	1/28/1985	33	15	NO	X	X	
511029		A17020007CBA	TRACY OR JANELLA PERKINS	EXEMPT	195	80	5	10/1/1981	5/2/1985	60	35	NO	X	X	
511169		A18019023B00	HARCO CORP,	OTHER	205	205	10	5/23/1985	5/17/1985	0	0	NO	N	X	
511932		A17020007ACA	GROSS,K H	EXEMPT	0	0	0		7/30/1985	0	0	NO			
513840		A17020007DDA	THOMAS HENSON	NON-EXEMPT	170	50	6	5/2/1986	3/28/1986	90	27	NO	X	X	
514992		A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	250	80	8	8/25/1986	7/25/1986	130	245	YES	X	X	
515770		A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	200	80	0	11/7/1987	10/7/1986	54	3	NO	X	X	
516042		A17020007DAD	JANSEN, CORNELIS,	NON-EXEMPT	175	50	6	11/4/1986	11/14/1986	42	20	NO	X	X	
518211		A17020007BBB	TERMAIN, DEBORA,L	EXEMPT	200	40	6	3/17/1988	6/19/1987	39	0	NO	C	X	
518943		A18019015BC0	EL PASO NATURAL GAS,	OTHER	500	190	8	10/15/1987	9/2/1987	0	0	NO	N	X	
519638		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	12	10	1	12/2/1987	11/13/1987	0	0	NO	N	X	
519639		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	12	10	1	12/2/1987	11/13/1987	4	0	NO	N	X	
519640		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	12	10	1	12/2/1987	11/13/1987	4	0	NO	N	X	
519760		A17020007ABD	MEGGAN P MURPH	EXEMPT	150	32	6	7/10/1988	12/1/1987	35	20	NO	X	X	
520217		A17020007CDD	YAZZIE, ALFRED,	EXEMPT	180	60	6	2/10/1989	2/9/1988	60	0	NO	C	X	
521468		A17019012BBA	MAXWELL, MYRON,	EXEMPT	200	67	6	5/12/1989	6/14/1988	75	12	NO	X	X	
524566		A18019025000	AZ PUBLIC SERVICE,	OTHER	185	40	6	6/8/1989	5/17/1989	0	0	NO	N	X	
527034		A17020007ABA	CHRISTOPHER & SHERRA DUNSMORE	EXEMPT	150	30	6	4/30/1990	2/2/1990	45	0	NO	C	X	
527039		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527040		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527041		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527042		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527043		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527044		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527045		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527046		A17019012DDC	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527047		A17019012DDC	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527048		A17019012DDC	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527278		A18020026DCD	HOLBROOK, TOWN OF,	NON-EXEMPT	0	0	0		3/2/1990	0	0	NO	N		
527279		A18020026BCA	HOLBROOK, TOWN OF,	NON-EXEMPT	0	0	0		3/2/1990	0	0	NO	N		
527280		A18020026ACC	HOLBROOK, TOWN OF,	NON-EXEMPT	78	78	7	3/10/1990	3/2/1990	17	0	NO	N	X	
527281		A18020026ACB	HOLBROOK, TOWN OF,	NON-EXEMPT	300	300	6	3/4/1990	3/2/1990	229	0	NO	N	X	
527282		A18020026DCB	HOLBROOK, TOWN OF,	NON-EXEMPT	42	42	6	3/8/1990	3/2/1990	0	0	NO	N	X	
528697		A18020034ABD	JENNINGS, MOLLIE,	NON-EXEMPT	460	395	0	7/10/1990	7/9/1990	254	300	NO	X	X	
529604		A180190166DCB	RADIAN CORP,	MONITOR	18	10	2	5/28/1991	5/20/1991	13	0	NO	N	X	
529605		A180190166DCB	RADIAN CORP,	MONITOR	15	10	2	5/29/1991	5/20/1991	13	0	NO	N	X	
529606		A180190166DCC	RADIAN CORP,	MONITOR	25	20	2	5/28/1991	5/20/1991	13	0	NO	N	X	
529607		A180190166DCA	RADIAN CORP,	MONITOR	15	10	2	5/28/1991	5/20/1991	13	0	NO	N	X	
531124		A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	275	20	14	5/28/1991	3/7/1991	12	750	NO	X	X	
533811		A18019013CCA	AZ PUBLIC SERVICE,	MONITOR	259	258	5	1/22/1992	11/26/1991	114	0	NO	N	X	
533812		A18019013CCA	AZ PUBLIC SERVICE,	MONITOR	293	292	5	1/12/1992	11/26/1991	83	0	NO	N	X	
533813		A18019023AAA	AZ PUBLIC SERVICE,	MONITOR	280	279	5	12/16/1991	11/26/1991	80	0	NO	N	X	
533814		A18019013CCA	AZ PUBLIC SERVICE,	MONITOR	62	62	5	1/27/1992	11/26/1991	4	0	NO	N	X	
533815		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/26/1991	0	0	NO	N		
533816		A18019023AAA	AZ PUBLIC SERVICE,	MONITOR	240	238	5	12/19/1991	11/26/1991	80	0	NO	N	X	
533817		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	141	140	5	2/15/1992	11/26/1991	30	0	NO	N	X	
533818		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/26/1991	0	0	NO	N		
533819		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/26/1991	0	0	NO	N		
533820		A18020030CAA	AZ PUBLIC SERVICE,	MONITOR	96	20	5	2/15/1992	11/26/1991	30	0	NO	N	X	
534511		A17020011BCC	JEFFERS, MARIA,	NON-EXEMPT	0	0	0		2/20/1992	0	0	NO			
535278		A18020029ADD	BRIMHALL SAND & ROCK,	NON-EXEMPT	420	420	10	6/5/1992	5/12/1992	251	0	NO	C	X	
536055		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	40	18	4	7/23/1992	7/16/1992	33	0	NO	N	X	
536056		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	21	0	0	7/20/1992	7/16/1992	20	0	NO	N	X	
536057		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	51	0	0	7/21/1992	7/16/1992	50	0	NO	N	X	
536058		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	30	0	0	7/22/1992	7/16/1992	30	0	NO	N	X	
536059		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	40	0	0	7/28/1992	7/16/1992	33	0	NO	N	X	
537495		A18020031CDC	WESTOVER, BOYD,L	EXEMPT	125	125	0	2/2/1993	12/1/1992	6	0	NO	C	X	
538790		A17020007CDC	MYERS, JOHN JR,W	NON-EXEMPT	200	200	5	4/22/1993	4/15/1993	0	40	NO	X	X	
539095		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	5/27/1993	5/12/1993	5	0	NO	C	X	
539096		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	5/28/1993	5/12/1993	5	0	NO	C	X	
539097		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	7/8/1993	5/12/1993	5	0	NO	C	X	
539098		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	7/8/1993	5/12/1993	5	0	NO	C	X	
539099		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	7/9/1993	5/12/1993	5	0	NO	C	X	
539100		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	20	0	0	7/7/1993	5/12/1993	5	0	NO	C	X	
539101		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	12	0	0	7/7/1993	5/12/1993	1	0	NO	C	X	
539102		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	21	0	0	7/7/1993	5/12/1993	5	0	NO	C	X	
539103		A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	6/1/1993	5/12/1993	1	0	NO	A	X	
539104		A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	6/2/1993	5/12/1993	1	0	NO	A	X	
539105		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539106		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539107		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539108		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539109		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539110		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539111		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539112		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539113		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539114		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539115		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GP	Pump Data Availabl	Completion Repo	Log Receivec	WSP Notes
539116		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539117		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539118		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539119		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	20	10	2	5/19/1993	5/12/1993	1	0	NO	N	X	
539120		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	20	10	2	5/19/1993	5/12/1993	1	0	NO	N	X	
539121		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	20	10	2	5/19/1993	5/12/1993	1	0	NO	N	X	
539225		A17020007DAA	GARY AND MELISSA HUNT	EXEMPT	174	54	5	6/18/1993	5/18/1993	74	30	NO	X	X	
539859		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		7/12/1993	0	0	NO			
539860		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/21/1993	7/12/1993	25	0	NO		X	
539861		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/23/1993	7/12/1993	25	0	NO		X	
539862		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/22/1993	7/12/1993	25	0	NO		X	
539863		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	35	35	5	7/25/1993	7/12/1993	25	0	NO		X	
539864		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/24/1993	7/12/1993	25	0	NO		X	
539986		A18020031BBB	HUNT, BOYCE,B	EXEMPT	130	30	61	9/7/1993	7/16/1993	105	0	NO	C	X	
540040		A18019016DCC	RADIAN CORP,	MONITOR	20	20	4	9/15/1993	8/17/1993	14	0	NO	N	X	
540041		A18019016DCC	RADIAN CORP,	MONITOR	20	20	4	9/16/1993	8/17/1993	15	0	NO	N	X	
540042		A18019016DCA	RADIAN CORP,	MONITOR	20	20	4	9/16/1993	8/17/1993	13	0	NO	N	X	
540668		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	45	45	4	9/23/1993	9/15/1993	23	0	NO	N	X	
540669		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		9/15/1993	0	0	NO	N		
540670		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	0	0	0		9/15/1993	0	0	NO	N		
540671		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	0	0	0		9/15/1993	0	0	NO	N		
540672		A18019022DBD	ARIZONA PUBLIC SERVICE	MONITOR	45	45	4	9/24/1993	9/15/1993	18	0	NO	A	X	
541134	345512110151701	A18020031ACC	KEMPTON, CARL,	EXEMPT	160	100	6	11/8/1993	10/20/1993	115	0	NO	C	X	
541684		A18019015BCC	EL PASO NATURAL GAS,	OTHER	500	180	8	12/17/1993	12/3/1993	0	0	NO	N	X	
541711	345531110124101	A18020027CAA	DALE MCKINNON	NON-EXEMPT	460	320	8	3/25/1994	12/6/1993	207	0	NO	C	X	
546245		A18019023CDA	APS,	OTHER	187	187	6	12/9/1994	10/28/1994	0	0	NO	N	X	
546582		A17020010CBB	KENNEVINA LEE	EXEMPT	250	250	6	12/28/1994	11/14/1994	57	0	NO	C	X	
547033		A18019023CDD	APS,	OTHER	25	0	0	1/9/1995	12/30/1994	25	0	NO	N	X	
547034		A18019023CDD	APS,	MONITOR	46	45	4	1/9/1995	12/30/1994	25	0	NO	N	X	
547035		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	46	45	4	1/10/1995	12/30/1994	25	0	NO	A	X	
547036		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	46	45	4	1/11/1995	12/30/1994	25	0	NO	A	X	
547037		A18019023CDD	APS,	MONITOR	0	0	0		12/30/1994	0	0	NO	N		
547038		A18019023CDD	APS,	MONITOR	0	0	0		12/30/1994	0	0	NO	N		
547039		A18019023CDD	APS,	MONITOR	0	0	0		12/30/1994	0	0	NO	N		
547253		A18020030000	ARIZONA PUBLIC SERVICE COMPANY	OTHER	37	0	0	6/7/1995	6/2/1995	0	0	NO	N	X	
547254		A18019025000	ARIZONA PUBLIC SERVICE COMPANY	OTHER	50	0	0	6/14/1995	6/2/1995	0	0	NO	N	X	
548409		A17020007BAC	KEVIN DIPIAZZA	EXEMPT	145	54	6	7/18/1995	3/6/1995	60	18	NO	X	X	
552166		A18020033BBA	CLINTON HADDOX	EXEMPT	0	0	0		9/18/1995	0	0	NO			
552869		A17020005CBB	LOPEZ, ODELL,	EXEMPT	100	41	6	12/30/1995	10/16/1995	34	20	NO	X	X	
553267		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	49	49	5	12/21/1995	11/30/1995	2	25	NO	X	X	
553268		A18020030CCB	ARIZONA PUBLIC SERVICE	MONITOR	50	50	4		11/30/1995	0	0	NO	A		
553269		A18020030CCC	AZ PUBLIC SERVICE,	MONITOR	45	45	4	12/19/1995	11/30/1995	9	0	NO	N	X	
553270		A18019036AAB	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/30/1995	0	0	NO	N		
553271		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	45	20	4	12/18/1995	11/30/1995	29	0	NO	N	X	
558134		A17020010ADD	FISH BROS, LLC	NON-EXEMPT	200	42	12	10/29/1996	6/6/1996	5	0	NO	X	X	
558423		A17020010CCC	FERGUSON, MICHAEL,	NON-EXEMPT	205	20	6	11/3/1996	6/17/1996	57	0	NO	C	X	
560489		A18020030CCC	AZ PUBLIC SERVICE,	MONITOR	30	0	4	2/11/1997	11/26/1996	29	0	NO	N	X	
562218		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR	0	0	0		4/22/1997	0	0	NO	N		
562329		A18018010CCC	JAQUEZ JR, ANTONIO,	MONITOR	0	0	0		4/22/1997	0	0	NO	A		
562330		A18018010CCC	JAQUEZ JR, ANTONIO,	MONITOR	0	0	0		4/22/1997	0	0	NO	A		
562331		A18018010CCC	JAQUEZ JR, ANTONIO,	MONITOR	0	0	0		4/22/1997	0	0	NO	A		
562332		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR	25	5	2	4/16/1998	4/22/1997	15	0	NO	A	X	
562333		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR	25	5	4	4/17/1998	4/22/1997	15	0	NO	A	X	
566113		A17020005CBA	MARCELINO & ROSA PONCE	EXEMPT	125	52	8	7/24/1998	12/2/1997	41		NO		X	
566237		A18019018BCD	DELWIN OR EVELYN SOLOMON	EXEMPT	400	155	10	5/13/1998	12/4/1997	14		NO		X	
566723		A17020007CDB	ARTHUR OR MAJORI MAHER	EXEMPT	205	47	7	1/6/1999	1/27/1998	80		NO	X	X	
567466		A17020005CCB	FERNANDO AND ROBIN LEDEZMA	EXEMPT	130	431	6	11/4/1998	2/27/1998	50		NO		X	
568830		A17020010CBB	ALICE JOHNSON	EXEMPT	160	51	6	7/20/1998	6/3/1998	60		NO		X	
569370		A17019003BBB	EL PASO NATURAL GAS CO. LLC., A KINDER MORGAN COMPANY	OTHER	500	130	8	9/27/1998	6/19/1998			NO	A	X	
570836		A17019010CBA	LUCAS AND GRAVES DEVELOPMENT, INC	EXEMPT					9/14/1998			NO			
573258		A18018010ABC	THE CAROL A SHAFF REVOCABLE TRUST	EXEMPT	280	233	8	3/24/1999	2/8/1999	83		NO		X	
573582		A17020006BAA	BOYD L WESTOVER	EXEMPT					3,4/1999			NO			
577823		A17020007CDB	JOHN OR JOANN MYERS	EXEMPT					1/27/1998			NO			
578122		A17020007BAC	JOHNNY E PENROD	EXEMPT					11/5/1999			NO			
578284		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578285		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578286		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578287		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578288		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578289		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578290		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578291		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578292		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578293		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578294		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578295		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578296		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578297		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578298		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578299		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578300		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578301		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578302		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578303		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578304		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578305		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
579540		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR	40	30	2	3/23/2000	2/8/2000	42		NO		X	
579541		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR	60	50	2	3/28/2000	2/8/2000	27		NO		X	
579542		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	62	52	2	3/22/2000	2/8/2000			NO		X	
579543		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	85	75	2	3/27/2000	2/8/2000	25		NO		X	
579544		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	85	75	2	3/23/2000	2/8/2000	37		NO		X	
579545		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	104	90	2	3/20/2000	2/8/2000	90		NO		X	
579546		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	83	73	2	3/21/2000	2/8/2000	46		NO		X	
580114		A17020007BCC	BRYANT PETERSEN	NON-EXEMPT	205	55	6	5/12/2000	3/20/2000	621	27	NO	X	X	
580185		A17020006BAA	BOYD L WESTOVER	EXEMPT	173	38	6	8/15/2000	3/16/2000	26		NO		X	
582885		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
582886		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
582887		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
582888		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
583834		A17020007BAA	KENNETH H EDINGER	EXEMPT	160	60	6	12/18/2000	10/11/2000	49		NO	X	X	

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GP	Pump Data Availabl	Completion Repo	Log Receivec	WSP Notes
585020		A17020007CCD	JOHN OR JOANN MYERS	EXEMPT	208	60	5	4/10/2001	1/2/2001	78		NO	X	X	
588000		A18019016CAC	HARTLEY TURLEY	OTHER					7/19/2001			NO			
588012		A18019016CAC	HARTLEY TURLEY	MONITOR	45	45	4	3/8/2002	7/19/2001	26		NO		X	
588013		A18019016CAC	HARTLEY TURLEY	MONITOR	40	40	4	3/6/2002	7/19/2001	9		NO	A	X	
588014		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO	A		
588015		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO	A		
588016		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO	A		
588017		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588018		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588019		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588020		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588021		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
590313		A17020010CBB	ANTHONY AND CARLA JEWETT	EXEMPT	200	60		6/7/2002	12/24/2001	74		NO		X	
590553		A17020007CBB	DUANE RAY CHARLEY	EXEMPT	220	55	5	2/28/2002	1/14/2002	81		NO	X	X	
590554		A17020007CBC	ROBERT MCLAWS	EXEMPT	215	50	5	3/8/2002	1/14/2002	86		NO	X	X	
592674		A17020007BAA	BOBBIE C WRIGHT	EXEMPT	205	45	6	8/9/2002	5/20/2002	57		NO		X	
592774		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	30				5/28/2002			NO	A		
592775		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
592776		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
592777		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
592778		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
593169		A18019034DBC	MILTON H DESPAIN	EXEMPT	115	50	6	9/7/2002	6/20/2002	43		NO		X	
593851		A18019016CAC	HARTLEY TURLEY	MONITOR					7/30/2002			NO	A		
594035		A18018010CCC	JACKRABBIT TRADING POST	MONITOR					8/9/2002			NO			
594036		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				8/9/2002			NO	A		
594037		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				8/9/2002			NO	A		
594038		A18018010CCC	JACKRABBIT TRADING POST	MONITOR					8/9/2002			NO			
594039		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				8/9/2002			NO	A		
594796		A18019023CDD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					9/27/2002			NO			
594797		A18019023CDD	ARIZONA PUBLIC SERVICE COMPANY	OTHER					9/27/2002			NO			
595839		A18019016CAC	HARTLEY TURLEY	MONITOR	15	11			11/18/2002	20		NO	A	X	
595846		A18019016CAC	HARTLEY TURLEY	MONITOR	15	14	1		11/18/2002	20		NO	A	X	
595849		A18019016CAC	HARTLEY TURLEY	MONITOR	10	10	4		11/18/2002	20		NO	A	X	
599261		A18019017CDD	JOSEPH CITY SANITARY DISTRICT	MONITOR	30	30	6	8/5/2003	7/1/2003	6		NO		X	
600208	345302110123801	A17020010CAC	SHUMWAY, DREW,	NON-EXEMPT	200	20	12	1/1/1940	10/7/1981	30	600	NO	N	N	
600239	345424110125101	A17020003BAD	SHUMWAY, DREW,	NON-EXEMPT	500	65	12	1/1/1960	10/7/1981	31	400	NO	N	N	
600240		A17020011CAC	SHUMWAY, DREW,	NON-EXEMPT	400	60	12	1/1/1960	10/7/1981	30	500	NO	N	N	
600241		A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	200	10	8	1/1/1950	10/7/1981	3	150	NO	N	N	
600242		A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	1/1/1950	10/7/1981	3	200	NO	N	N	
600243		A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	1/1/1950	10/7/1981	3	200	NO	N	N	
600245		A17020005CCD	SHUMWAY, DREW,	NON-EXEMPT	225	10	10	1/1/1940	10/7/1981	10	300	YES	N	N	
600246	345342110141201	A17020005DCC	SHUMWAY, DREW,	NON-EXEMPT	225	20	10	1/1/1955	10/7/1981	0	150	NO	N	N	
600247	345342110141301	A17020005DCB	SHUMWAY, DREW,	NON-EXEMPT	225	20	10	1/1/1955	10/7/1981	3	150	NO	N	N	
600248	345420110124301	A17020003BBC	FUELCO TRAVEL CENTER,	NON-EXEMPT	495	60	10	3/15/1972	10/7/1981	27	300	NO	N	N	
600249		A17020010DBC	SHUMWAY, DREW,	NON-EXEMPT	210	20	8	1/1/1940	10/7/1981	50	100	NO	N	N	
600250	345247110110401	A17020011DDB	SHUMWAY, DREW,	NON-EXEMPT	410	65	12	1/20/1973	10/7/1981	40	300	NO	N	N	
600251		A17020005ABA	SHUMWAY, DREW,	NON-EXEMPT	350	20	8	2/21/1974	10/7/1981	100	300	YES	N	N	
600252		A17020010DDA	SHUMWAY, DREW,	NON-EXEMPT	225	42	12	2/27/1980	10/7/1981	75	300	NO	N	N	
600253		A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	200	10	12	10/18/1978	10/7/1981	20	400	NO	N	N	
600254		A17020003BCD	SHUMWAY, DREW,	NON-EXEMPT	200	20	8	1/1/1940	10/7/1981	3	100	NO	N	N	
600255	345314110121401	A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	1/1/1940	10/7/1981	3	100	NO	N	N	
600256	345303110120501	A17020010DAC	SHUMWAY, DREW,	EXEMPT	280	10	10	1/1/1940	10/7/1981	35	30	NO	N	N	
600372		A17019012DAC	DAVID DESPAIN	NON-EXEMPT	500	71	6	2/14/1975	9/28/1981	50	100	YES	N	X	
600373		A17019012DBC	DAVID DESPAIN	NON-EXEMPT	250	70	8	4/5/1977	9/28/1981	80	100	NO	X	X	
600374		A17018001DAA	AZTEC LAND & CATTLE,	EXEMPT	180	60	6	5/15/1946	9/28/1981	160	5	NO	N	N	
600375	345445110192501	A18019033DAA	AZTEC LAND CO. LLC.	EXEMPT	100	40	6	6/10/1946	9/28/1981	20	12	NO	N	N	
600376		A18019017DAA	F B HANSEN	EXEMPT	450	120	8	1/1/1945	9/28/1981	90	20	NO	N	N	
600377	345324110123801	A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	75	5	12	1/1/1940	9/28/1981	18	500	NO	N	N	
600378	345324110123901	A17020010BDC	DAVID & DEBBIE SHUMWAY	NON-EXEMPT	75	5	12	1/1/1940	9/28/1981	18	100	NO	N	N	
600383	345345110245701	A17018003DAD	AZTEC LAND & CATTLE,	EXEMPT	130	20	6	1/1/1930	9/28/1981	100	7	NO	N	N	
600521		A17020007ABC	JANSEN,H W	NON-EXEMPT	250	12	12	8/1/1971	12/16/1981	50	150	NO	N	N	
600527		A180190916000	RANDALL, A BLAINE,	NON-EXEMPT	450	150	12	1/1/1958	12/16/1981	50	1200	NO	N	N	
601745		A17020010CDA	RICK G TAYLOR	EXEMPT	150	20	6	3/13/1978	9/18/1981	50	30	NO			
601814	345733110213501	A18019018DAA	PORTER,H D	NON-EXEMPT	322	250	8	1/1/1970	1/18/1982	20	10	NO			
601836		A17019012AAD	B & C United Energies	NON-EXEMPT	325	10	12	1/1/1962	1/19/1982	60	220	YES			
601837		A17019012ABB	ALONZO & SHARI MCLAWS	NON-EXEMPT	400	10	12	1/1/1948	1/19/1982	69	220	YES			
602175		A17020010DAB	SIMPER,A D	NON-EXEMPT	150	10	8	1/1/1950	2/4/1982	3	200	NO			
602176		A17020010DBD	COOPER & SHEALYNN REIDHEAD	NON-EXEMPT	130	48	8	1/1/1980	2/4/1982	21	200	NO			
602321		A18020033CDD	BLACK ROCK CONSTR,	NON-EXEMPT	225	45	8	7/20/1976	1/21/1982	40	400	NO			
602783		A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	100	100	6	5/10/1980	2/10/1982	46	100	NO			
602960		A17020010DAB	HEWARD,J E	EXEMPT	100	20	8	1/1/1940	2/17/1982	8	30	NO			
602961		A17020008ACA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	150	20	8	1/1/1940	2/17/1982	1	150	NO			
602962		A17020008ACA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	200	20	10	1/1/1940	2/17/1982	1	200	NO			
602963		A17020008DAB	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	225	35	10	1/1/1940	2/17/1982	28	400	YES			
602964		A17020008BDA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	150	20	6	1/1/1940	2/17/1982	1	100	NO			
602965	345320110144710	A17020008BDB	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	200	20	10	1/1/1940	2/17/1982	12	600	YES			
603167		A17020010CAB	MICHAEL & ERNESTINE KAFFER	NON-EXEMPT	150	20	8	1/1/1950	2/18/1982	30	350	NO			
603770		A18020033000	THOMPSON,G C	NON-EXEMPT	210	100	6	4/1/1964	9/14/1982	100	60	NO			
603796		A18019016CAA	CORNELIS E. & KRISTI J. JANSEN	NON-EXEMPT	450	0	0	1/1/1946	9/10/1981	0	75	YES			
603863	345314110112401	A17020011ACC	HEYWOOD,Y	NON-EXEMPT	300	0	12	8/1/1964	2/19/1982	50	450	NO			
603864	345314110112301	A17020011ACC	HEYWOOD,Y	NON-EXEMPT	200	0	4	1/1/1952	2/19/1982	50	40	NO			
603865		A17020011ACC	PACIFIC UNION CONFERENCE OF SEVENTH-DAY ADVENTISTS	EXEMPT	150	150	8	6/1/1974	2/19/1982	30	0	NO			
604008		A18020033000	DESPAIN,E R	NON-EXEMPT	235	100	6	8/1/1964	9/21/1981	100	150	NO			
604247		A17020011CBB	L. GRANT BRINKERHOFF	NON-EXEMPT	0	0	6		2/26/1982	21	100	NO			
604273		A17020007DBC	ROY WHITE	NON-EXEMPT	175	121	8	7/1/1979	3/4/1982	82	100	YES			
604646		A18020033BC0	PARISH,J D	NON-EXEMPT	250	80	8	11/28/1973	3/12/1982	67	60	NO			
604689	345308110125301	A17020010CAA	D'AMICO, DONALD,R	NON-EXEMPT	150	150	12	1/1/1957	3/11/1982	15	1100	YES			
604690		A17020010CAA	HOLBROOK, CITY OF,	NON-EXEMPT	60	40	12	1/1/1935	3/11/1982	10	1000	YES			
604691	345310110122901	A17020010CAA	HOLBROOK, CITY OF,	NON-EXEMPT	50	30	12	1/1/1935	3/11/1982	10	450	NO			
604918		A17020007CCB	DARRELL A & CYNTHIA L STEEN	NON-EXEMPT	200	126	6	7/3/1979	3/8/1982	80	35	YES			
604926		A17020011000	BRIGHAM YOUNG UNIV.,	NON-EXEMPT	0	0	0	9/5/1961	3/10/1982	0	0	NO			
605139		A17019012ACA	B & C United Energies	NON-EXEMPT	408	13	10	1/1/1977	3/22/1982	74	300	YES			
605141		A17020010BCB	MC LAWS,W	NON-EXEMPT	100	221	5	1/1/1965	3/22/1982	12	100	NO			
605469	345447110132801	A18020033CDA	WILLIAM WIEGAND	NON-EXEMPT	208	208	6	12/31/1946	4/7/1982	165	120	NO	A		
605470		A17020010BCB	MC LAWS,C L	NON-EXEMPT	100	0	8	7/1/1962	4/7/1982	8	0	NO			
605617		A18020034C00	JENNINGS,C L	NON-EXEMPT	300	150	8	3/1/1973	3/31/1982	120	45	NO			
605778		A17020005000	DEWITT,M	NON-EXEMPT	240	18	12	5/20/1974	3/31/1982	46	500	YES			
605779		A17020011000	DEWITT,H K	NON-EXEMPT	175	15	12	1/1/1970	3/31/1982	30	350	NO			
606476		A17020010CBB	JEFFERS,J C	NON-EXEMPT	0	0	0		4/30/1982	0	0	NO			
606477		A17020010CBB	JEFFERS,J C	NON-EXEMPT	150	0	0		4/30/1982	17	0	NO			

ADWR Well Registry Review Q1 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GP	Pump Data Availabl	Completion Repo	Log Receivec	WSP Notes
606478		A17020011CAB	JEFFERS,J C	NON-EXEMPT	200	0	0	1/1/1953	4/30/1982	0	300	NO			
606495		A17020007BBC	HILDEBRAND,R E	NON-EXEMPT	400	8	12	6/12/1973	4/26/1982	67	374	YES			
606498		A17020011C00	ADAIR,F R	NON-EXEMPT	125	20	6		4/26/1982	26	50	NO			
606720		A18020033BAC	DESPAIN,R E	NON-EXEMPT	350	129	11	1/1/1974	5/5/1982	90	100	NO			
606724		A17020008D00	J-S FARMS, INC.	EXEMPT	0	0	0		5/5/1982	0	35	NO			
606725		A17020008D00	J-S FARMS, INC.	EXEMPT	0	0	0		5/5/1982	0	35	NO			
606801	345833110244901	A18018010ADA	THE CAROL A SHAFF REVOCABLE TRUST	EXEMPT	50	50	6	1/1/1910	4/16/1982	30	20	NO			
607766		A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	460	10	12	1/1/1960	5/7/1982	92	525	NO			
607767		A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	250	10	7	12/1/1976	5/7/1982	94	100	NO			
607768		A17020007BDC	JOHN W. MYERS, JR.	NON-EXEMPT	150	51	6	11/1/1976	5/7/1982	47	100	NO			
607769		A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	180	8	8	1/1/1966	5/7/1982	81	100	NO			
608472	345637110191901	A18019022CBC	LARRY E. & AVA RACHELE BALDWIN	NON-EXEMPT	440	343	10	3/17/1967	5/10/1982	10	1000	NO			
609539		A18019016CD0	NEAL,T R	NON-EXEMPT	200	0	3	1/1/1936	5/25/1982	19	0	NO			
609540		A18019016CD0	NEAL,T R	NON-EXEMPT	200	0	8	1/1/1934	5/25/1982	19	500	NO			
609578		A17020007BDC	PENROD, JOHNNY,E	NON-EXEMPT	400	10	12	1/1/1970	5/14/1982	90	700	YES			
609959		A18020033D00	SCHADE,G L	NON-EXEMPT	150	130	6	1/1/1940	5/24/1982	0	0	NO			
610650		A17020007DAD	JEAN GEORGE	NON-EXEMPT	250	9	9	3/10/1974	5/23/1982	49	75	YES			
613088		A18019026ACB	AZ PUBLIC SERVICE,	NON-EXEMPT	595	695	30	1/1/1961	6/10/1982	0	1200	YES			
613089	345434110171201	A18019036CCC	AZ PUBLIC SERVICE,	NON-EXEMPT	350	55	10	12/1/1961	6/10/1982	27	950	YES	X		
613090	345434110170501	A18019036CCD	AZ PUBLIC SERVICE,	NON-EXEMPT	350	60	24	3/8/1962	6/10/1982	37	2000	YES			
613091	345345110175201	A17019002DBC	AZ PUBLIC SERVICE,	NON-EXEMPT	487	320	16	8/1/1967	6/10/1982	55	750	YES			
613092	345251110182601	A17019010DDB	AZ PUBLIC SERVICE,	NON-EXEMPT	550	38	24	2/1/1977	6/10/1982	100	450	YES			
613093	345526110200601	A18019028CDC	AZ PUBLIC SERVICE,	NON-EXEMPT	245	58	12	10/27/1978	6/10/1982	14	800	YES	X		
613094	345340110193001	A17019004DDC	AZ PUBLIC SERVICE,	NON-EXEMPT	550	61	24	3/5/1978	6/10/1982	87	1000	YES			
613095	345415110200801	A17019004BDB	AZ PUBLIC SERVICE,	NON-EXEMPT	430	85	24	7/1/1978	6/10/1982	30	900	YES	X		
613096		A17019012BCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	458	79	7	12/16/2020	6/10/1982	103	900	NO		X	
613097	345316110170910	A17019012CAC	ARIZONA PUBLIC SERVICE	NON-EXEMPT	576	78	11	12/16/2020	6/10/1982	97	600	NO		X	
613098		A18019020DDD	AZ PUBLIC SERVICE,	NON-EXEMPT	0	0	8		6/10/1982	0	0	NO			
613099		A17020006DDD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	127	25	5	12/16/2020	6/10/1982	58	0	NO		X	
613125		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	45	0	2		6/10/1982	24	0	NO			
613126		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	6	0	2		6/10/1982	2	0	NO			
613127		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	8	0	0		6/10/1982	0	0	NO			
613128		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	10	0	0		6/10/1982	1	0	NO			
613129		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	12	0	0		6/10/1982	2	0	NO			
613130		A18019026BDA	AZ PUBLIC SERVICE,	EXEMPT	15	0	0		6/10/1982	15	0	NO			
613131		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	45	0	0		6/10/1982	20	0	NO			
613132		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	8	0	0		6/10/1982	2	0	NO			
613133		A18019026BDA	AZ PUBLIC SERVICE,	EXEMPT	18	0	0		6/10/1982	17	0	NO			
613134		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	45	0	0		6/10/1982	17	0	NO			
613135		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	10	0	0		6/10/1982	8	0	NO			
613136		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	6	0	0		6/10/1982	1	0	NO			
613137		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	8	0	0		6/10/1982	1	0	NO			
613138		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	18	0	0		6/10/1982	0	0	NO			
613139		A18019026ACC	AZ PUBLIC SERVICE,	EXEMPT	14	0	0		6/10/1982	12	0	NO			
613140		A18019026ACD	AZ PUBLIC SERVICE,	EXEMPT	45	0	0		6/10/1982	18	0	NO			
613141		A18019026ACD	AZ PUBLIC SERVICE,	EXEMPT	18	0	0		6/10/1982	16	0	NO			
613142		A18019026ACD	AZ PUBLIC SERVICE,	EXEMPT	35	0	0		6/10/1982	13	0	NO			
613143		A18019021CCB	AZ PUBLIC SERVICE,	EXEMPT	1005	267	10	1/1/1977	6/10/1982	8	0	NO			
613144		A18019028DDD	AZ PUBLIC SERVICE,	EXEMPT	374	0	12		6/10/1982	13	0	NO			
613145		A18019026CBB	AZ PUBLIC SERVICE,	EXEMPT	570	0	0	1/1/1959	6/10/1982	30	0	NO			
613146	345339110202401	A17019004CCC	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		6/10/1982	0	0	NO			
613147		A18019028DDD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		6/10/1982	0	0	NO			
613148		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	595	595	0	1/1/1961	6/10/1982	0	0	NO			
613149	345613110180601	A18019026BBA	AZ PUBLIC SERVICE,	EXEMPT	570	185	12	1/1/1959	6/10/1982	0	0	NO			
613150		A18019035BDB	AZ PUBLIC SERVICE,	EXEMPT	57	50	6	8/23/1973	6/10/1982	45	0	NO			
613151		A18019026CAA	AZ PUBLIC SERVICE,	EXEMPT	57	53	6	8/28/1973	6/10/1982	40	0	NO			
613152		A18019025CDC	ARIZONA PUBLIC SERVICE CHOLLA POWER PLANT	EXEMPT	56	49	6	8/30/1973	6/10/1982	32	0	NO	A		
613153		A18019026DAB	AZ PUBLIC SERVICE,	EXEMPT	92	80	6	9/4/1973	6/10/1982	40	0	NO			
613154		A18019022DCA	AZ PUBLIC SERVICE,	EXEMPT	100	100	6	9/7/1973	6/10/1982	5	0	NO			
613155		A17019012BBA	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		6/10/1982	0	0	NO	A		
613158	345751110231101	A18018013BAD	AZ PUBLIC SERVICE,	EXEMPT	1005	290	16	4/8/1978	6/10/1982	35	0	NO			
613159	345802110243601	A18018011CCD	AZ PUBLIC SERVICE,	EXEMPT				1/17/1978	6/10/1982		0	NO			
613163		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	77	50	1	10/31/1978	6/10/1982	77	0	NO			
613164		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	44	28	1	10/31/1978	6/10/1982	28	0	NO			
613165		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	177	88	1	11/1/1978	6/10/1982	62	0	NO			
613166		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	164	88	1	11/1/1978	6/10/1982	20	0	NO			
613167		A18019023AAB	AZ PUBLIC SERVICE,	EXEMPT	137	88	1	11/1/1978	6/10/1982	54	0	NO			
613168		A18019023AAB	AZ PUBLIC SERVICE,	EXEMPT	50	33	2	10/31/1978	6/10/1982	1	0	NO			
613169		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	154	114	1		6/10/1982	29	0	NO			
613170		A18019025AAA	AZ PUBLIC SERVICE,	EXEMPT	102	87	1		6/10/1982	27	0	NO			
613171		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	292	277	2		6/10/1982	74	0	NO			
613172		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	50	18	1	3/21/1979	6/10/1982	9	0	NO			
613173		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	3/22/1979	6/10/1982	19	0	NO			
613174		A18019014DAA	AZ PUBLIC SERVICE,	EXEMPT	80	48	1	3/20/1979	6/10/1982	52	0	NO			
613175		A18019014DDB	AZ PUBLIC SERVICE,	EXEMPT	81	41	1	3/12/1979	6/10/1982	30	0	NO			
613176		A18019014DAC	AZ PUBLIC SERVICE,	EXEMPT	80	53	1	8/21/1979	6/10/1982	77	0	NO			
613177		A18019013CAA	AZ PUBLIC SERVICE,	EXEMPT	62	40	1	3/9/1979	6/10/1982	32	0	NO			
613178		A18019014DCD	AZ PUBLIC SERVICE,	EXEMPT	67	38	1	3/11/1979	6/10/1982	39	0	NO			
613179		A18019014DCD	AZ PUBLIC SERVICE,	EXEMPT	67	38	1	3/11/1979	6/10/1982	41	0	NO			
613180		A18019014DCD	AZ PUBLIC SERVICE,	EXEMPT	54	31	1	3/23/1979	6/10/1982	33	0	NO			
613181		A18019013CAD	AZ PUBLIC SERVICE,	EXEMPT	57	25	1	3/8/1979	6/10/1982	30	0	NO			
613182		A18019013CAD	AZ PUBLIC SERVICE,	EXEMPT	53	28	1	2/26/1979	6/10/1982	33	0	NO			
613183		A18019013CCA	AZ PUBLIC SERVICE,	EXEMPT	70	43	1	3/8/1979	6/10/1982	40	0	NO			
613184		A18019013CCA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	3/7/1979	6/10/1982	32	0	NO			
613185		A18019013CCA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	2/25/1979	6/10/1982	18	0	NO			
613186		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	2/25/1979	6/10/1982	3	0	NO			
613187		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	50	25	1	2/24/1979	6/10/1982	0	0	NO			
613188		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	55	21	1	2/23/1979	6/10/1982	21	0	NO			
613189		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	55	31	1	2/22/1979	6/10/1982	7	0	NO			
613190		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	60	33	1	2/21/1979	6/10/1982	0	0	NO			
613191		A18019023AAB	AZ PUBLIC SERVICE,	EXEMPT	58	37	0	3/6/1979	6/10/1982	5	0	NO			
613192		A18019023ABA	AZ PUBLIC SERVICE,	EXEMPT	50	27	1	2/27/1979	6/10/1982	12	0	NO			
613193		A18019025DAA	AZ PUBLIC SERVICE,	EXEMPT	26	16	1		6/10/1982	16	0	NO			
613194		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	56	41	1		6/10/1982	17	0	NO			
613195		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	77	57	1		6/10/1982	18	0	NO			
613196		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	146	133	2		6/10/1982	27	0	NO			
613197		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	92	52	1		6/10/1982	70	0	NO			
613198		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	191	175	2		6/13/1982	69	0	NO			
613199		A18019025ADA	AZ PUBLIC SERVICE,	EXEMPT	112	32	1		6/10/1982	97	0	NO			
613200		A18019025AAD	AZ PUBLIC SERVICE,	EXEMPT	132	32	1		6/10/1982	117	0	NO			

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GP	Pump Data Availabl	Completion Repo	Log Receivec	WSP Notes
613201		A18020019CCA	AZ PUBLIC SERVICE,	EXEMPT	54	32	1	4/6/1979	6/10/1982	0	0	NO			
613202		A18020030DDA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/7/1979	6/10/1982	0	31	NO			
613203		A18019025AAC	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/7/1979	6/10/1982	39	0	NO			
613204		A18019025ABA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/8/1979	6/10/1982	0	0	NO			
613205		A18019024DCD	AZ PUBLIC SERVICE,	EXEMPT	57	35	1	4/8/1979	6/10/1982	0	0	NO			
613206		A18020030DCB	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	3/27/1979	6/10/1982	0	0	NO			
613207		A18020030DCB	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	3/26/1979	6/10/1982	53	0	NO			
613208		A18020030DCA	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	3/27/1979	6/10/1982	0	0	NO			
613209		A18020030CDB	AZ PUBLIC SERVICE,	EXEMPT	51	29	1	4/5/1979	6/10/1982	0	0	NO			
613210		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/6/1979	6/10/1982	0	0	NO			
613211		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	70	43	1	4/6/1979	6/10/1982	58	0	NO			
613212		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	51	29	1	4/5/1979	6/10/1982	18	0	NO			
613213		A18020030CBA	AZ PUBLIC SERVICE,	EXEMPT	120	88	1	5/19/1979	6/10/1982	55	0	NO			
613214		A18020030CBA	AZ PUBLIC SERVICE,	EXEMPT	120	88	2	5/16/1979	6/10/1982	96	0	NO			
613215		A18020030CBA	AZ PUBLIC SERVICE,	EXEMPT	116	88	1	5/7/1979	6/10/1982	77	0	NO			
613216		A18020030CBB	AZ PUBLIC SERVICE,	EXEMPT	70	43	1	3/26/1979	6/10/1982	11	0	NO			
613217		A18020030CBB	AZ PUBLIC SERVICE,	EXEMPT	37	19	1	4/3/1979	6/10/1982	21	0	NO			
613218		A18020030BCC	AZ PUBLIC SERVICE,	EXEMPT	100	79	1	5/1/1979	6/10/1982	59	0	NO			
613219		A18019030BCC	AZ PUBLIC SERVICE,	EXEMPT	103	81	1	4/18/1979	6/10/1982	80	0	NO			
613220		A18019025ADD	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	4/4/1979	6/10/1982	51	0	NO			
613221		A18019025ADD	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/4/1979	6/10/1982	21	0	NO			
613222		A18019025ADD	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/3/1979	6/10/1982	13	0	NO			
613223		A18019025ADA	AZ PUBLIC SERVICE,	EXEMPT	80	58	1	5/8/1979	6/10/1982	57	0	NO			
613399	345315110181201	A17019011BCC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	340	260	24	10/15/1974	6/9/1982	94	1250	YES			
613400	345413110184401	A17019003ACB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	260	24	7/17/1974	6/9/1982	105	638	YES	X	X	
613401	345247110172301	A17019011DDC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	299	24	3/1/1977	6/9/1982	96	750	YES			
613402	345344110165101	A17019001CDC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	470	279	24	1/1/1977	6/9/1982	69	1000	YES			
613403	345411110161601	A17019001ADA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	390	278	24	11/1/1976	6/9/1982	39	700	YES	X		
613404	345444110192501	A18019033DAD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	410	269	24	10/26/1977	6/9/1982	26	600	YES			
613405	345322110220201	A17019009BDB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	415	239	24	12/19/1978	6/9/1982	92	1250	YES	X		
613406	345256110192401	A17019009DDA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	319	24	12/20/1977	6/9/1982	126	1250	YES			
613407	345415110210301	A17019005BDA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	490	279	24	1/1/1978	6/9/1982	64	850	YES	X		
613408	345500110210301	A18019032BDD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	314	24	6/13/1978	6/9/1982	98	1050	YES	X		
613409	345424110221301	A17019006BAB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	363	24	4/10/1978	6/9/1982	179	500	YES			
613410	345323110173001	A17019011ACA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	530	319	24	7/1/1977	6/9/1982	82	800	YES			
613411	345354110162701	A17019001DBD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	400	24	4/1/1977	6/9/1982	65	450	YES			
613412	345342110204801	A17019005DCD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	565	259	24	7/1/1978	6/9/1982	69	500	YES			
613413		A18019027BBB	AZTEC LAND & CATTLE CO LTD	EXEMPT	840	285	10	1/1/1977	6/9/1982	14	0	NO			
613414		A17019005BBB	AZTEC LAND & CATTLE CO LTD	EXEMPT	1020	282	10	1/1/1977	6/9/1982	111	0	NO			
613415		A17019001ADD	AZTEC LAND & CATTLE CO LTD	EXEMPT	755	50	10	1/1/1977	6/9/1982	45	0	NO			
613416		A17019009AAD	AZTEC LAND & CATTLE CO LTD	EXEMPT	780	44	10	1/1/1977	6/9/1982	100	0	NO			
613417		A18019027DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	900	163	10	1/1/1977	6/9/1982	14	0	NO			
613418		A18019035DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	560	120	11	12/31/1977	6/9/1982	65	0	NO	X	X	
613421		A18019035DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	520	57	10	1/1/1977	6/9/1982	33	0	NO			
613422		A18019030DCD	AZTEC LAND & CATTLE CO LTD	EXEMPT	670	288	10	6/1/1977	6/9/1982	72	0	NO			
613423	345321110213001	A17019007ADA	AZTEC LAND & CATTLE CO LTD	EXEMPT	555	141	10	1/1/1977	6/9/1982	92	0	NO			
613424		A18019032AAA	AZTEC LAND & CATTLE CO LTD	EXEMPT	854	136	11	8/1/1978	6/9/1982	25	0	NO			
613425		A17019005ADD	AZTEC LAND & CATTLE CO LTD	EXEMPT	845	112	10	7/21/1978	6/9/1982	42	0	NO			
613429	345608110250001	A18018027AAB	AZTEC LAND & CATTLE CO LTD	EXEMPT	555	190	11	6/28/1977	6/9/1982	0	0	NO		X	
613443	345618110224001	A18018024DDD	AZTEC LAND AND CATTLE CO., LTD	EXEMPT	338	338	24	8/15/1978	6/9/1982	0	0	NO	X	X	
613444		A18018024ADD	AZTEC LAND AND CATTLE CO., LTD	EXEMPT	785	278	10	1/1/1977	6/9/1982	20	0	NO			
614307		A18020028ACD	AZ STATE LAND DEPT,	EXEMPT	0	0	0	1/1/1975	6/14/1982	0	17	NO			
614308		A18020032DDA	AZ STATE LAND DEPT,	EXEMPT	100	0	9	1/1/1958	6/14/1982	0	0	NO	X		
616734		A17020010000	DANIEL J & BEKI A HEALY	NON-EXEMPT	75	3	8	1/1/1950	5/25/1982	25	250	NO			
616735		A17020008B00	JUAN BARRERAS	NON-EXEMPT	350	60	10	4/1/1959	5/25/1982	45	395	YES			
617195		A17020007000	BURRELL,M J	NON-EXEMPT	250	16	8	3/1/1975	6/2/1982	90	60	YES			
617485		A17020011AAD	MYERS,J	NON-EXEMPT	270	100	12	1/1/1932	4/16/1982	11	100	NO			
618132		A17020010CCB	FARMERS HOME,	EXEMPT	150	150	6	1/1/1977	6/9/1982	50	35	NO			
618962		A17020007ABA	BRUCE & CHELSIE GERMAIN	NON-EXEMPT	135	7	12	4/1/1975	6/11/1982	46	97	YES			
618963		A17020007ABA	NEWTON,F E	EXEMPT	135	7	12	4/1/1975	6/11/1982	4634	34000	NO			
619248		A17020010CDA	JORDAN AUTOBEE	NON-EXEMPT	200	40	6	1/1/1940	6/14/1982	60	100	NO			
619249		A17020010CBB	BRANDON & BRIGGETTE BRIMHALL	NON-EXEMPT	150	20	6	1/1/1978	6/14/1982	30	50	NO			
619389		A17020007ADD	DAVENPORT,M	NON-EXEMPT	235	50	10	1/1/1974	6/14/1982	40	300	YES			
619460		A17020007CCB	FIRKINS,J L	EXEMPT	200	0	6	1/16/1979	6/14/1982	80	35	YES			
620357		A17020010CDB	FERGUSON,E J	NON-EXEMPT	180	0	12		6/14/1982	25	1000	NO			
620358		A17020010CBA	FERGUSON,E J	NON-EXEMPT	100	22	12		6/14/1982	22	600	NO			
620359		A17020010CBA	FERGUSON,E J	NON-EXEMPT	100	15	10	1/1/1968	6/14/1982	22	400	NO			
620360		A17020010CCC	WILSON,G	NON-EXEMPT	180	30	10	1/1/1974	6/14/1982	50	1000	NO			
620686		A17020007ABA	KEENE SR,R J	NON-EXEMPT	150	12	12	3/5/1975	6/14/1982	48	3	YES			
620722	345414110153601	A17020006ACB	JOSEPH CITY IRRIGATION COMPANY	NON-EXEMPT	403	8	14	2/1/1948	6/14/1982	32	1009	YES	X	X	
620723	345410110153201	A17020006DBA	JOSEPH CITY IRRIGATION COMPANY	NON-EXEMPT	300	240	14	4/17/2009	6/14/1982	19	744	YES	X	X	
620724	345736110204201	A18019017ADC	JOSEPH CITY IRRIG CO,	NON-EXEMPT	425	275	12	1/1/1975	6/14/1982	90	1200	YES			
621980	345327110154701	A17020007BAD	MCLAWS,J R	NON-EXEMPT	200	10	10		6/14/1982	45	100	NO			
622735	345313110110401	A17020011ADC	DAVIS,L W	NON-EXEMPT	0	0	8	1/1/1952	5/19/1982	0	50	NO			
627200		A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	460	10	12	1/1/1960	2/9/1982	92	525	YES			
627201		A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	180	8	8	1/1/1966	2/9/1982	8	100	NO			
627202		A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	250	10	7	12/12/1976	2/9/1982	74	100	NO			
627203		A17020007BDC	ZUFELT, L. MAYNARD,	NON-EXEMPT	150	51	6	11/1/1976	2/9/1982	47	100	NO			
627238		A18018015AAD	ATCHISON-TOPEKA,	NON-EXEMPT	43	43	8	1/1/1941	6/10/1982	0	0	NO			
627252		A17020006AAC	ATCHISON-TOPEKA,	NON-EXEMPT	80	80	6	2/27/1940	6/10/1982	0	0	NO			
628494	345727110020050	A18019016000	JOSEPH CITY WATER,	NON-EXEMPT	460	300	10	1/1/1946	5/13/1982	70	300	NO			
628495	345722110212901	A18019017CBC	JOSEPH CITY WATER,	NON-EXEMPT	390	290	10	9/7/1972	5/13/1982	50	600	YES			
628496	345720110212601	A18019017CBC	JOSEPH CITY WATER,	NON-EXEMPT	400	300	10	10/1/1977	5/13/1982	50	600	YES			
628497	345726110200601	A18019016000	JOSEPH CITY WATER,	NON-EXEMPT	500	300	10	1/1/1942	5/13/1982	70	300	NO			
628566		A17020007000	EDWIN & BRENDA BURROUGHS	NON-EXEMPT	250	35	6		6/21/1982	65	65	YES			
629256	345714110201901	A18019016CCA	DELWIN OR EVELYN SOLOMON	NON-EXEMPT	425	0	10		6/17/1982	20	1000	YES	A		
629415		A17020010000	DAVID & DEBBIE SHUMWAY	NON-EXEMPT	200	20	12	1/1/1970	6/25/1982	40	500	NO			
629686	345320110151601	A17020007AAC	MELINDA WHITE	EXEMPT	0	0	0		3/2/1982	0	35	NO			
629709		A17020010CBB	BRANDON & BRIGGETTE BRIMHALL	EXEMPT	115	20	6	1/1/1979	3/1/1982	40	20	NO			
629893		A18020033ACD	DILLOW,W C	EXEMPT	170	90	6	3/1/1980	2/4/1982	70	25	NO			
630190		A17020007DBB	MCLAWS,G T	EXEMPT	400	0	14	4/1/1961	2/19/1982	90	2	NO			
631391		A17020007BBB	PAGE, FRANK,L	EXEMPT	175	48	6	1/12/1980	3/23/1982	155	25	NO			
632346		A17020010CC0	ALBERT M FERNIZA	EXEMPT	275	20	8	1/1/1973	4/6/1982	55	5	NO			
632472		A17020010ACC	MAURICE L. JONES	EXEMPT	200	12	6	5/16/1978	5/3/1982	52		NO	X	X	
633413		A17020010DDD	TERMAIN,D	NON-EXEMPT	103	18	8	3/1/1968	6/21/1982	13	110	NO			
633414		A17020010ACD	TERMAIN,D	NON-EXEMPT	100	10	8	4/1/1975	6/21/1982	8	100	NO			
637905		A18020033BCA	HOLYOAK,J	EXEMPT	170	40	6	3/19/1980	6/14/1982	100	35	NO			
638034		A18020031BDC	HUNT,D	EXEMPT	130	40	9	10/20/1980	6/14/1982	33	25	NO			
638807		A17020009BDB	DAVIE & CYNTHIA MOYA	NON-EXEMPT	0	0	15		6/14/1982	0	30	NO			
638808		A17020009BDB	MARVIN & KAREN MCLEMORE	EXEMPT	0	0	9		6/14/1982	0	30	NO			

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GP	Pump Data Availabl	Completion Repo	Log Receivec	WSP Notes
638809		A17020009BDB	HARKEY, JOHN,	EXEMPT	0	0	9		6/14/1982	0	0	NO			
641097		A17020007CCC	KILEY AND ABBIE REIDHEAD	EXEMPT	220	10	6	2/11/1975	4/15/1982	120	0	NO	X	X	
641098		A17020007CCC	JAMES PRUITT	EXEMPT	180	10	6	2/8/1975	4/15/1982	100	0	NO	X	X	
641524		A18020033BAA	MYERS,V W	EXEMPT	265	0	6		4/13/1982	140	0	NO			
641851		A18020033CAC	PERKINS,W D	EXEMPT	200	81	7	5/1/1979	4/27/1982	70	30	NO			
642511		A18018011CCD	HANSEN BROTHERS	EXEMPT	810	220	11	1/17/1978	6/8/1982	33	0	NO		X	
642512		A18018013BAD	NEW MEXICO-AZ LND CO,	EXEMPT	795	68	16	4/8/1978	6/8/1982	35	0	NO			
644029		A18020033BDA	EVELYN CAROLE USSHER	EXEMPT	400	125	8	7/14/1972	5/18/1982	101	30	NO			
645034	345435110134901	A18020033CCD	ROGERS,A W	EXEMPT	200	85	9	12/13/1968	6/10/1982	35	35	NO			
645218		A17020011DBD	NASH,A F	EXEMPT	0	0	0		6/8/1982	0	0	NO			
645315		A17020011ACD	ALLEN MITCHELL	EXEMPT	120	0	8		6/11/1982	55	20	NO			
645395		A17019012BDD	CATHLEEN MILEHAM	EXEMPT	0	8	12		6/4/1982	89	0	NO			
648192		A17020010CBB	JOSEPH THOMAS SANTOS	EXEMPT	125	27	8	9/21/1979	6/14/1982	60	35	NO			
650048		A17020007DAA	JEFFERY M BALOO	EXEMPT	250	12	10	8/22/1973	6/24/1982	50	35	NO			
650086		A18019022ABC	LANE,J E	NON-EXEMPT	750	750	10		7/14/1982	50	200	YES			
650137		A17020010CBC	DAVID C. & TAMMY M. HAGER	EXEMPT	200	6	8	1/1/1977	6/16/1982	45	30	NO			
650524	345310110124801	A17020010CBA	PAULSELL,J L	EXEMPT	85	45	6	1/1/1964	6/30/1982	19	0	NO			
650787		A17020010C00	COOLEY,S R	EXEMPT	100	6	3	1/1/1971	6/17/1982	50	0	NO			
801481		A17020009ABA	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	50	NO			
801482		A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	200	NO			
801483		A17020009AAB	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	50	NO			
801484		A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	0	NO			
801485		A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	0	NO			
802073		A17020011DCC	OWENS,E J	NON-EXEMPT	170	70	8	9/15/1979	3/14/1985	90	250	NO			
802290		A18019017DAA	F B HANSEN	EXEMPT	440	400	6	1/1/1946	5/20/1985	50	30	NO			
802415		A17020010CCA	THOMAS D CATERN	NON-EXEMPT	150	30	8		6/18/1985	15	300	NO			
802416		A17020010BBB	ZUFELT,K L	EXEMPT	75	8	8	1/1/1976	6/18/1985	6	0	NO			
802422		A17020007000	SIZEMORE,R E	NON-EXEMPT	0	0	6	8/1/1973	5/31/1985	30	90	NO			
803003		A17020010CBA	WESTERN SAVINGS,	EXEMPT	0	0	0		9/17/1985	0	0	NO			
805293		A18019017BD0	DOUGLAS AND PATRICIA POGUE	EXEMPT	0	0	0	12/31/1937	11/1/1988	0	0	NO			
806201		A17020011D00	SEVENTH DAY ADVENT.,	NON-EXEMPT	250	90	12	12/31/1973	11/25/1991	35	500	NO			
806202		A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	200	0	10	12/31/1945	11/25/1991	35	100	NO			
806203	345304110113601	A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	220	90	12	12/31/1971	11/25/1991	37	150	NO			
806204		A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	200	80	5	12/31/1945	11/25/1991	35	100	NO			
808211		A18018034DAB	BRYAN & CASSYDE JOLLEY	NON-EXEMPT					8/8/2001			NO			
808212	345452110245401	A18018034DAB	BRYAN & CASSYDE JOLLEY	NON-EXEMPT					8/8/2001			NO			
808461		A18019017BCA	MARCI A. & JOSEPH M. ZABADAL	EXEMPT					5/16/2003			NO			
808706		A17020010BCC	DON E OR JEANNE E HUNSAKER	EXEMPT	100	30	6	1/1/1972	11/3/2004			NO			
809098		A17020005000	JOHN & CAROLYN NATCHER	EXEMPT								NO			App dated 8/3/2006, late well registry
809311		A17019012ADD	JASON & CRYSTAL CASTILLO	EXEMPT					1/26/2009			NO			
810061		A17020010CDC	RICK & TWYLA TAYLOR	EXEMPT	200	200	6	1/1/1963	4/8/2019	70	25	NO			
810208		A18019016CCD	ELDON LARSEN	NON-EXEMPT				1/1/1950	2/17/2021			NO			
810300		A18019035ADA	ARIZONA PUBLIC SERVICE CO.	EXEMPT	450	450	10	1/1/1947	12/8/2021	30		NO			
810301		A18019023DAD	ARIZONA PUBLIC SERVICE CO.	EXEMPT	550	550	16	1/1/1959	12/8/2021	50		NO			
901893		A18019016CCB	ADOT, ATTN: J.J. LIU	MONITOR	30	30	2	3/23/2005	3/16/2005	20		NO	A	X	
903874		A17020003AAD	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	30	30	2	12/20/2005	12/20/2005	13		NO	A	X	
904175		A17019010BAD	SAGE A. & DEBORAH D. SCHOLER	EXEMPT	593	593	7	2/20/2006	2/6/2006	465	18	NO	X	X	
905032		A18019016ACD	SPARTA INVESTMENTS INC.	MONITOR					6/16/2006			NO			
905034		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905035		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905036		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905037		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905038		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
906362	345435110171001	A18019036CCC	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT					2/1/2007			YES			
906363		A18019036DDC	ARIZONA PUBLIC SERVICE CORPORATION	NON-EXEMPT					2/1/2007			YES			
906364		A18019035AAB	ARIZONA PUBLIC SERVICE CORPORATION	NON-EXEMPT	481	470	20	7/15/2007	2/1/2007	30		YES		X	
906365		A18019036BBA	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	500	470	17	8/11/2007	2/1/2007	34		YES		X	
906812	345433110162101	A18019036DDD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT					4/12/2007			YES			
906917		A18019023CCD	ARIZONA PUBLIC SERVICE CO	OTHER					5/4/2007			NO			
907167		A18019023DDD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT					6/11/2007			YES			
907560		A17019011ABD	ARIZONA PUBLIC SERVICE CO	MONITOR	400	400	5	8/25/2007	8/7/2007			NO		X	
907561		A18019026CCC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	8	9/7/2007	8/7/2007	35		NO		X	
907562		A17019002AAA	ARIZONA PUBLIC SERVICE CO	MONITOR	251	250	5	8/23/2007	8/7/2007			NO		X	
907563		A17019002AAA	ARIZONA PUBLIC SERVICE CO	MONITOR	502	500	9	8/23/2007	8/7/2007	66		NO		X	
907565		A18019034DBA	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	9/22/2007	8/7/2007			NO		X	
907567		A18019036BCC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	9/19/2007	8/7/2007	38		NO		X	
907571		A17019002BBB	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	8/28/2007	8/7/2007			NO		X	
907572		A17019004ADC	ARIZONA PUBLIC SERVICE CO	NON-EXEMPT	530	520	21	10/15/2007	8/7/2007	89		NO		X	
907659		A17019010ADD	ARIZONA PUBLIC SERVICE CIMPANY	NON-EXEMPT	510	500	21	8/28/2007	8/23/2007	129		NO		X	
907660		A17019002BBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	500	490	21	2/7/2008	8/23/2007	67		NO		X	
907676		A18019016CBD	SPARTA INVESTMENTS	MONITOR	16	16	8	8/28/2007	8/27/2007	0		NO		X	
907677		A18019016CBD	SPARRA INVESTMENTS	MONITOR	40	40	2	8/28/2007	8/27/2007	25		NO		X	
907678		A18019016CBD	SPARTA INVESTMENTS	MONITOR	31	30	8	8/29/2007	8/27/2007	25		NO		X	
907679		A18019016CBD	SPARTA INVESTMENTS	MONITOR	31	30	8	8/29/2007	8/27/2007	25		NO		X	
907680		A18019016CBD	SPARTA INVESTMENTS	MONITOR	31	30	8	8/29/2007	8/27/2007	25		NO		X	
907681		A18019016CBD	SPARTA INVESTMENTS	MONITOR	16	16	8	8/28/2007	8/27/2007	0		NO		X	
907834		A17019002CCD	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	9/26/2007	9/21/2007	90		NO		X	
907835		A17019004CBC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	11/7/2007	9/21/2007	108		NO		X	
907836		A17019010BBC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	10/3/2007	9/21/2007	113		NO		X	
907883		A17019002ADD	ARIZONA PUBLIC SERVICE CO	MONITOR	360		8	10/8/2007	9/28/2007			NO		X	
907990		A17019002ADD	ARIZONA PUBLIC SERVICE CO	OTHER	360		8	10/9/2007	10/17/2007			NO		X	
908367		A17019002DCC	ARIZONA PUBLIC SERVICE	MONITOR	505	500	5	1/14/2008	1/18/2008	90		NO		X	
908486		A18019016DBC	SPARTA INVESTMENTS	MONITOR	30	30	8	3/3/2008	2/8/2008	25		NO		X	
908668		A18020033DDC	PACIFIC HOLT CORP	NON-EXEMPT	300	300	8	5/27/2008	3/11/2008	72		NO		X	
908742		A17019002CCD	ARIZONA PUBLIC SERVICE CORP.	NON-EXEMPT	500	490	21	4/22/2008	3/27/2008	91		NO		X	
909085		A18019022CBC	AZTEC LAND & CATTLE CO LTD.	OTHER	90		7	5/28/2008	5/23/2008			NO	A	X	
909086		A18019016BCD	THRIFTWAY MARKETING	MONITOR	32	30	2	5/28/2008	5/23/2008	20		NO		X	
909087		A18019016BCD	THRIFTWAY MARKETING	MONITOR					5/23/2008			NO			
909088		A18019016CBD	THRIFTWAY MARKETING	MONITOR	30	30	2	5/27/2008	5/23/2008	20		NO		X	
909089		A18019016CBD	THRIFTWAY MARKETING	MONITOR	35	35	2	5/30/2008	5/23/2008	20		NO		X	
909090		A18019016CBD	THRIFTWAY MARKETING	MONITOR	32	30	2	5/28/2008	5/23/2008	20		NO		X	
909091		A18019016CBD	THRIFTWAY MARKETING	MONITOR	32	30	2	5/28/2008	5/23/2008	20		NO		X	
909092		A18019016CBD	THRIFTWAY MARKETING	MONITOR	35	35	2	5/28/2008	5/23/2008	20		NO		X	
909093		A18019016CBD	THRIFTWAY MARKETING	MONITOR	20	20	2	5/31/2008	5/23/2008			NO		X	
909094		A18019016DAC	THRIFTWAY MARKETING	MONITOR	35	35	2	5/30/2008	5/23/2008	20		NO		X	
909096		A18019016DAC	THRIFTWAY MARKETING	MONITOR	35	35	2	5/31/2008	5/23/2008	20		NO		X	
909097		A18019016DAC	THRIFTWAY MARKETING	MONITOR					5/23/2008			NO			
909098		A18019016DAC	THRIFTWAY MARKETING	MONITOR	32	32		5/29/2008	5/23/2008	20		NO		X	
909099		A18019016CBD	THRIFTWAY MARKETING	MONITOR	32	32	2	5/29/2008	5/23/2008	20		NO		X	
909100		A18019016CBD	THRIFTWAY MARKETINGT	MONITOR	32	32	2	5/29/2008	5/23/2008	20		NO		X	

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GP	Pump Data Availabl	Completion Repo	Log Receive	WSP Notes
909102		A18019016CBD	THRIFTWAY MARKETING	MONITOR					5/23/2008			NO			
909103		A18019016CBD	THRIFTWAY MARKETING	OTHER	20	20		5/31/2008	5/23/2008			NO		X	
909105		A18019016CBD	THRIFTWAY MARKETING	OTHER	18	18	2	5/31/2008	5/23/2008			NO		X	
909106		A18019016CBD	THRIFTWAY MARKETING	OTHER	18	18	2	5/31/2008	5/23/2008			NO		X	
909401		A17020010CCB	RONALD LEE SMITH	EXEMPT	160	160	6	7/11/2008	7/11/2008	67	25	NO	X	X	
909605		A18019016DAC	THRIFTWAY MARKETING	MONITOR	32	30	2	5/29/2008	8/20/2008	20		NO		X	
909750		A17020009ADA	HEATHER SMITH	EXEMPT	160	160	5	9/28/2008	9/17/2008	35	35	NO	X	X	
909768		A17020007BBA	GERALD BRIGGS	EXEMPT	160	160	6	9/19/2008	9/18/2008	66		NO		X	
909797		A17020006CBC	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	400	400	5	10/3/2008	9/24/2008	28		NO		X	
909801		A18019022CCC	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	535	530	5	10/30/2008	9/25/2008	30		NO		X	
909802		A17020006CBB	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	410	400	5	10/7/2008	9/25/2008	64		NO		X	
909803		A18019028CCC	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	510	500	5	11/6/2008	9/25/2008	29		NO		X	
909987		A18020030BBA	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	290	280	5	11/18/2008	10/30/2008			NO		X	
909988		A18020030BBA	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	385	380	5	11/15/2008	10/30/2008	140		NO		X	
910007		A18019025CDC	ARIZONA PUBLIC SERVICE CO	MONITOR	60		10	11/21/2008	11/6/2008			NO		X	
910008		A18019026DAB	ARIZONA PUBLIC SERVICE CO	MONITOR	90	65	5	11/22/2008	11/6/2008	30		NO		X	
910009		A18019023DDD	ARIZONA PUBLIC SERVICE CO	MONITOR	75	70	5	11/20/2008	11/6/2008	45		NO		X	
910010		A18019023DDD	ARIZONA PUBLIC SERVICE CO	MONITOR	180	170	5	12/4/2008	11/6/2008	45		NO		X	
910011		A18019026DBA	ARIZONA PUBLIC SERVICE CO	MONITOR	70	60	8	11/23/2008	11/6/2008	38		NO		X	
910012		A18019035AAA	ARIZONA PUBLIC SERVICE CO	MONITOR	46	40	8	11/24/2008	11/6/2008	34		NO		X	
910013		A18019025BDA	ARIZONA PUBLIC SERVICE CO	MONITOR	80	70	5	11/21/2008	11/6/2008	34		NO		X	
910248		A18019015CDA	LOVE'S COUNTRY STORES	MONITOR	20	20		1/14/2009	1/9/2009			NO		X	
910249		A18019015CDA	LOVE'S COUNTRY STORES	MONITOR	22				1/9/2009			NO		X	
910250		A18019015CDA	LOVE'S COUNTY STORES	MONITOR	20				1/9/2009			NO		X	
910278		A18019016CBD	ROSS ROGERS	MONITOR					1/15/2009			NO		I	
910279		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/19/2009	1/15/2009	18		NO		X	
910280		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910281		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910282		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910283		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910284		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910285		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910286		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910287		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910288		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910289		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910290		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO			
910291		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910292		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910293		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910294		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910295		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910296		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910297		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910298		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910300		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910301		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910302		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/25/2009	1/15/2009	18		NO		X	
910303		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/25/2009	1/15/2009	18		NO		X	
910304		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/25/2009	1/15/2009	18		NO		X	
910305		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910306		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910307		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910308		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910312		A18019016CBD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910313		A18019016CBD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910314		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/29/2009	1/16/2009	18		NO		X	
910315		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910316		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910317		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910318		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910319		A18019016CBD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910320		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910321		A18019016BCD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910324		A17020006BAD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	400	240	21	4/10/2009	1/19/2009	29		NO		X	
910623		A18019023ACC	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	41	41	2	4/1/2009	4/8/2009	25		NO	A	X	
910624		A18019023000	ARIZONA DEPARTMENT OF TRANSPORTATION	OTHER	40		8	4/1/2009	4/8/2009	25		NO	A	X	
910717		A17020011000	CITY OF HOLBROOK	OTHER	45		8	5/18/2009	5/11/2009	20		NO	A	X	
910718		A17020002000	CITY OF HOLBROOK	OTHER	45		8	5/28/2009	5/11/2009	23		NO	A	X	
910723		A17020007DAC	DANIELLE FERNIZA	EXEMPT	200	100	6	6/21/2009	5/11/2009	95		NO		X	
911102		A17020002000	CITY OF HOLBROOK	OTHER					9/11/2009			NO			
911103		A17020002000	CITY OF HOLBROOK	OTHER					9/11/2009			NO			
912020		A17020009BCA	PENFIELD, CHARLENE PENFIELD, ALVIN	EXEMPT	155	155	5	5/14/2010	5/5/2010	25	25	NO	X	X	
912635		A17019012DAA	JESSIE AARYN BLINK	EXEMPT	363	100	6	12/1/2010	10/18/2010	83		NO		X	
912800		A18019013CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					12/27/2010			NO		I	
913769		A18019025BAA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	68	30		11/12/2011	11/3/2011	28		NO		X	
913770		A18019023CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	122	59		11/10/2011	11/3/2011	39		NO		X	
913771		A18019025DBA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR				11/11/2011	11/3/2011			NO		X	
913772		A18019022DDB	ARIZONA PUBLIC SERVICE COMPANY	OTHER	183			11/12/2011	11/3/2011			NO	A	X	
913983		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/16/2012			NO			
913984		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/16/2012			NO			
913985		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/16/2012			NO			
913993		A18019013DDD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/18/2012			NO			
914942		A18018014BDB	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	60	60	2	11/20/2012	11/14/2012	23		NO		X	
915393		A17020007BCC	BRYANT PETERSEN	NON-EXEMPT	220	220	6	6/3/2013	3/28/2013	68	10	NO	X	X	
916857		A17020010DCB	DAVID & DEBBIE SHUMWAY	EXEMPT					5/1/2014			NO			
917009		A18019023DCC	APS - CHOLLA POWER PLANT	OTHER					6/4/2014			NO	A	X	
917515		A18019022D00	BNSF RAILWAYS	OTHER	100		8	11/4/2014	11/6/2014	24		NO	A	X	
917536		A18019025000	ARIZONA PUBLIC SERVICE COMPANY	OTHER	61		8	11/20/2014	11/13/2014	32		NO	A	X	
917606		A18019023ACC	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	60	60	2	12/10/2014	12/8/2014	30		NO	A	X	
917710		A18019023000	ARIZONA DEPARTMENT OF TRANSPORTATION	OTHER	40			12/11/2014	1/14/2015	30		NO	A	X	
918505		A17020009ACD	TYLER KEE STINGLEY	EXEMPT	175	175	7	6/10/2015	8/6/2015	35	80	NO	X	X	
918535		A17020007ABD	SHERRA LOUISE WAHL	EXEMPT	180	180	8	8/31/2015	8/14/2015	35		NO		X	
918638		A18019025CDC	ARIZONA PUBLIC SERVICE	MONITOR	57	55	5	11/18/2015	9/11/2015	38		NO		X	
918639		A18019036ADB	ARIZONA PUBLIC SERVICE	MONITOR	35	20	4	9/16/2015	9/11/2015			NO		X	
918640		A18019025ADD	ARIZONA PUBLIC SERVICE	MONITOR	14	12	4	9/18/2015	9/11/2015			NO		X	
918641		A18020030CBB	ARIZONA PUBLIC SERVICE	MONITOR	32	29	4	9/18/2015	9/11/2015			NO		X	
918645		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR	13			9/19/2015	9/11/2015			NO		X	
918646		A18019013CAB	ARIZONA PUBLIC SERVICE	MONITOR	370	365	5	10/12/2015	9/11/2015			NO		X	
918647		A18019013CBB	ARIZONA PUBLIC SERVICE	MONITOR	425	423	5	10/21/2015	9/11/2015	197		NO		X	

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GP	Pump Data Availabl	Completion Repo	Log Receivec	WSP Notes
918648		A180190138CA	ARIZONA PUBLIC SERVICE	MONITOR	420	415	5	11/13/2015	9/11/2015	195		NO		X	
918649		A180190138AC	ARIZONA PUBLIC SERVICE	MONITOR	450	445	5	11/1/2015	9/11/2015	225		NO		X	
918651		A180190234AB	ARIZONA PUBLIC SERVICE	MONITOR					9/11/2015			NO			
918657		A180190248BC	ARIZONA PUBLIC SERVICE	MONITOR	83	70	4	9/21/2015	9/14/2015			NO		X	
918658		A180190235BD	ARIZONA PUBLIC SERVICE	MONITOR	97	84	5	11/17/2015	9/14/2015	42		NO		X	
918659		A180190235BC	ARIZONA PUBLIC SERVICE	MONITOR	100	85	5	10/13/2015	9/14/2015	42		NO		X	
918660		A180190235BC	ARIZONA PUBLIC SERVICE	MONITOR	100	85	5	10/8/2015	9/14/2015	41		NO		X	
918661		A180190235BC	ARIZONA PUBLIC SERVICE	MONITOR	100	85	5	10/7/2015	9/14/2015	41		NO		X	
918701		A180190138DB	ARIZONA PUBLIC SERVICES	MONITOR	60	55	5	10/5/2015	9/30/2015			NO		X	
919328		A170200099ACC	DOREEN JOHNSON	EXEMPT	250	250	6	11/8/2016	4/4/2016	40	30	NO	X	X	
919786		A180190238AD	ARIZONA PUBLIC SERVICES (APS)	MONITOR	60	60	4	8/24/2016	8/11/2016	40		NO		X	
919787		A180190238CC	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/25/2016	8/11/2016	40		NO		X	
919788		A180190235CC	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/26/2016	8/11/2016	40		NO		X	
919789		A180190264AD	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/29/2016	8/11/2016	42		NO		X	
919790		A180190244CDD	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/23/2016	8/11/2016	42		NO		X	
919791		A180190238DAB	ARIZONA PUBLIC SERVICE (APS)	MONITOR	120	118	4	8/19/2016	8/11/2016	42		NO		X	
920353		A180190211CCB	ARIZONA PUBLIC SERVICE (APS)	MONITOR	69	60	4	2/11/2017	2/3/2017	23		NO		X	
920467		A170200108BCC	MICHEAL SERNA	EXEMPT	160	160	5	4/18/2017	4/6/2017	68		NO		X	
921016		A180190228DDB	ARIZONA PUBLIC SERVICE - APS	MONITOR	126	119	4	11/4/2017	10/25/2017	50		NO		X	
921042		A180190228DDB	ARIZONA PUBLIC SERVICE (APS)	OTHER	66			11/5/2017	11/3/2017	60		NO	A	X	
921058		A180190268BBA	ARIZONA PUBLIC SERVICE	MONITOR	62	60	2	11/15/2017	11/8/2017	37		NO		X	
921059		A180190268BBA	ARIZONA PUBLIC SERVICE	MONITOR	62	60	2	11/16/2017	11/8/2017	36		NO		X	
921060		A180190235CCC	ARIZONA PUBLIC SERVICE	MONITOR					11/8/2017			NO			
921061		A180190235CCC	ARIZONA PUBLIC SERVICE	MONITOR					11/8/2017			NO			
921392		A180190268B0	ARIZONA PUBLIC SERVICE	OTHER	51		6	2/27/2018	2/28/2018			NO		X	
921515		A18020014BCB	JAMES CASEY MURPH	EXEMPT	160	160		4/24/2018	4/2/2018	60		NO		X	
922299		A180190258AB	ARIZONA PUBLIC SERVICE	MONITOR	25	19	4	11/14/2018	11/7/2018	14		NO		X	
922300		A18020030CBC	ARIZONA PUBLIC SERVICE	MONITOR	60	49	4	11/26/2018	11/7/2018	29		NO		X	
922301		A180190258DB	ARIZONA PUBLIC SERVICE	MONITOR	50	45		11/15/2018	11/7/2018	34		NO		X	
922954		A180190235CCD	ARIZONA PUBLIC SERVICE	MONITOR	86	70	4	5/22/2019	5/10/2019	46		NO		X	
922955		A180190235CCC	ARIZONA PUBLIC SERVICE	MONITOR	96	82	4	5/17/2019	5/10/2019	46		NO		X	
923204		A180190158CA	LOVES TRAVEL STOP AND COUNTRY STORES, INC	MONITOR					7/24/2019			NO			
923205		A180190158DA	LOVES TRAVEL STOP & COUNTRY STORE, INC.	MONITOR					7/24/2019			NO			
923206		A180190158CA	LOVES TRAVEL STOP & COUNRY STORE, INC.	MONITOR					7/24/2019			NO			
923207		A180190158CA	LOVES TRAVEL SHOP & COUNTRY STORE, INC.	MONITOR					7/24/2019			NO			
923346		A180190258AD	ARIZONA PUBLIC SERVICE	MONITOR	50			9/18/2019	9/9/2019			NO		X	
923582		A180190248BB	ARIZONA PUBLIC SERVICE	MONITOR	77	75	3	11/22/2019	11/6/2019			NO		X	
923598		A180190140DA	ARIZONA PUBLIC SERVICE	OTHER	62			11/19/2019	11/12/2019	9		NO	A	X	
923618		A180190248BB	ARIZONA PUBLIC SERVICE	MONITOR	53		3	11/19/2019	11/18/2019			NO		X	
923825		A170200100CCB	CLARK L COLE	EXEMPT	170	170	6	1/22/2020	1/21/2020			NO		X	
923973		A180190200000	ARIZONA PUBLIC SERVICE	OTHER	40			3/3/2020	3/2/2020			NO	A	X	
924142		A180180100000	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY	OTHER					4/6/2020			NO			
925215		A18020030CBD	ARIZONA PUBLIC SERVICES	OTHER	55	52	6	12/12/2020	12/2/2020			NO		X	
925216		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	30	24	6	12/10/2020	12/2/2020			NO		X	
925217		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	55	55	6	12/10/2020	12/2/2020			NO		X	
925218		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	55	53	6	12/11/2020	12/2/2020			NO		X	
925219		A180200300000	ARIZONA PUBLIC SERVICE	OTHER					12/2/2020			NO			
925220		A180190250000	ARIZONA PUBLIC SERVICE	OTHER					12/2/2020			NO			
925226		A180190235CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	71	70	4	12/11/2020	12/4/2020	40		NO		X	
925227		A180190235CDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	71	70	4	12/9/2020	12/4/2020	40		NO		X	
925727		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC.	MONITOR	36	36	2	3/15/2021	3/11/2021	11		NO		X	ADWR records sent to APS in 2021 Q3
925728		A180190158CA	LOVES TRAVELS STOPS & COUNTRY STORES, INC	MONITOR	36	36	2	3/16/2021	3/11/2021			NO		X	ADWR records sent to APS in 2021 Q3
925729		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR	36	36	2	3/16/2021	3/11/2021			NO		X	ADWR records sent to APS in 2021 Q3
925730		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR	35	36	2		3/11/2021	6		NO		X	ADWR records sent to APS in 2021 Q3
926097		A180190234AB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	55	55	6	5/5/2021	4/22/2021	2		NO		X	
926099		A180190234AA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	130	130	6	5/13/2021	4/22/2021	4		NO		X	
926100		A180190234AA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	84	81	6	5/3/2021	4/22/2021	19		NO		X	
926101		A180190138CD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					4/22/2021			NO			
926102		A180190138CD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	29	25	6	5/16/2021	4/22/2021	10		NO		X	
926103		A180190234AD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	52	26	4	5/1/2021	4/22/2021			NO		X	
926104		A180190234AC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	64	64	4	5/1/2021	4/22/2021	35		NO		X	
926105		A180190234DAC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	107	97	4	5/5/2021	4/22/2021	29		NO		X	
926106		A180190234DAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	177	165	4	5/18/2021	4/22/2021	27		NO		X	
926108		A180190228BD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	67	48	4	4/29/2021	4/22/2021	37		NO		X	
926109		A18020030BDB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	88	88	2	5/14/2021	4/22/2021	21		NO		X	
926110		A18020030BDB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	50	47	2	5/15/2021	4/22/2021	20		NO		X	
926111		A18020030CBD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	52	50	2	5/15/2021	4/22/2021	19		NO		X	
926115		A18020030CBD	ARIZONA PUBLIC SERVICE COMPANY	OTHER	54	54	6	5/16/2021	4/22/2021	22		NO		X	
926116		A18020030CBD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	19	18	4	5/13/2021	4/22/2021	1		NO		X	
926120		A18020030CCB	ARIZONA PUBLIC SERVICE	MONITOR	27	19	4	5/3/2021	4/23/2021	4		NO		X	
926240		A180190138CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	51	47	6	5/15/2021	5/14/2021	10		NO		X	
926398		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORE, INC. (ATTN: MICHAEL KEY)	MONITOR	35	36	2	6/15/2021	6/9/2021	24		NO		X	ADWR records sent to APS in 2021 Q3
926399		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: MICHAEL KEY)	MONITOR	35	36	2	6/15/2021	6/9/2021	24		NO		X	ADWR records sent to APS in 2021 Q3
926812		A180190248BB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	31	30	6	9/28/2021	9/5/2021	12		NO		X	
926813		A180190248BA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	26	26	6	9/29/2021	9/5/2021	18		NO		X	
926814		A180190248BB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	125	69	3	9/30/2021	9/5/2021	62		NO		X	
926815		A180190248BA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	125	66	3	9/29/2021	9/5/2021	19		NO		X	
926816		A180190248DC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	65	65	4	10/5/2021	9/5/2021	23		NO		X	
927409		A180190254AD	ARIZONA PUBLIC SERVICE	OTHER					12/10/2021			NO			
927464		A180190158CA	LOVES TRAVEL STOPS & SOUNTRY STORE, INC	MONITOR				12/10/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927465		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/13/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927466		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/7/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927467		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/8/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927468		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/14/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927469		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/9/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
928235		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC (CHRIS WELDON	MONITOR	15	15	2	6/8/2022	6/1/2022	9		NO		X	ADWR Records sent to APS in 2022 Q4
928236		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC (CHRIS WELDON)	MONITOR	15	15	2	6/8/2022	6/1/2022	9		NO		X	ADWR Records sent to APS in 2022 Q4
928237		A180190158CA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR	35	35	2	6/8/2022	6/1/2022	20		NO		X	ADWR Records sent to APS in 2022 Q4
929456		A180190260000	ARIZONA PUBLIC SERVICE (ATTN: RICHARD JACK) CHOLLA	OTHER	50			3/9/2023	3/8/2023	35		NO	A	X	Well Abandonment Completion Report filed on March 31st, 2023
929461		A180190230000	ARIZONA PUBLIC SERVICE (ATTN: RICHARD JACK) CHOLLA	OTHER					3/9/2023			NO			Drilling card has been filed and expires on 3/9/2024.
929527		A180190290000	AZTEC LAND & CATTLE COMPANY	OTHER	50	50	8	2/28/2023	3/28/2023			NO	A	X	Logs state these are all geotechnical borings that were abandoned after drilling
929528		A180190280000	AZTEC LAND & CATTLE COMPANY	OTHER	50	50	8	3/2/2023	3/28/2023			NO	A	X	Logs state these are all geotechnical borings that were abandoned after drilling
929529		A180190270000	AZTEC LAND & CATTLE COMPANY	OTHER				3/2/2023	3/28/2023			NO		X	Logs state these are all geotechnical borings that were abandoned after drilling
929530		A180190220000	AZTEC LAND & CATTLE COMPANY	OTHER	50	50	8		3/28/2023	26		NO	A	X	Logs state these are all geotechnical borings that were abandoned after drilling
929675		A170200078AA	GREG LONG	EXEMPT					5/3/2023			NO			Drilling card has been filed and expires on 5/3/2024.

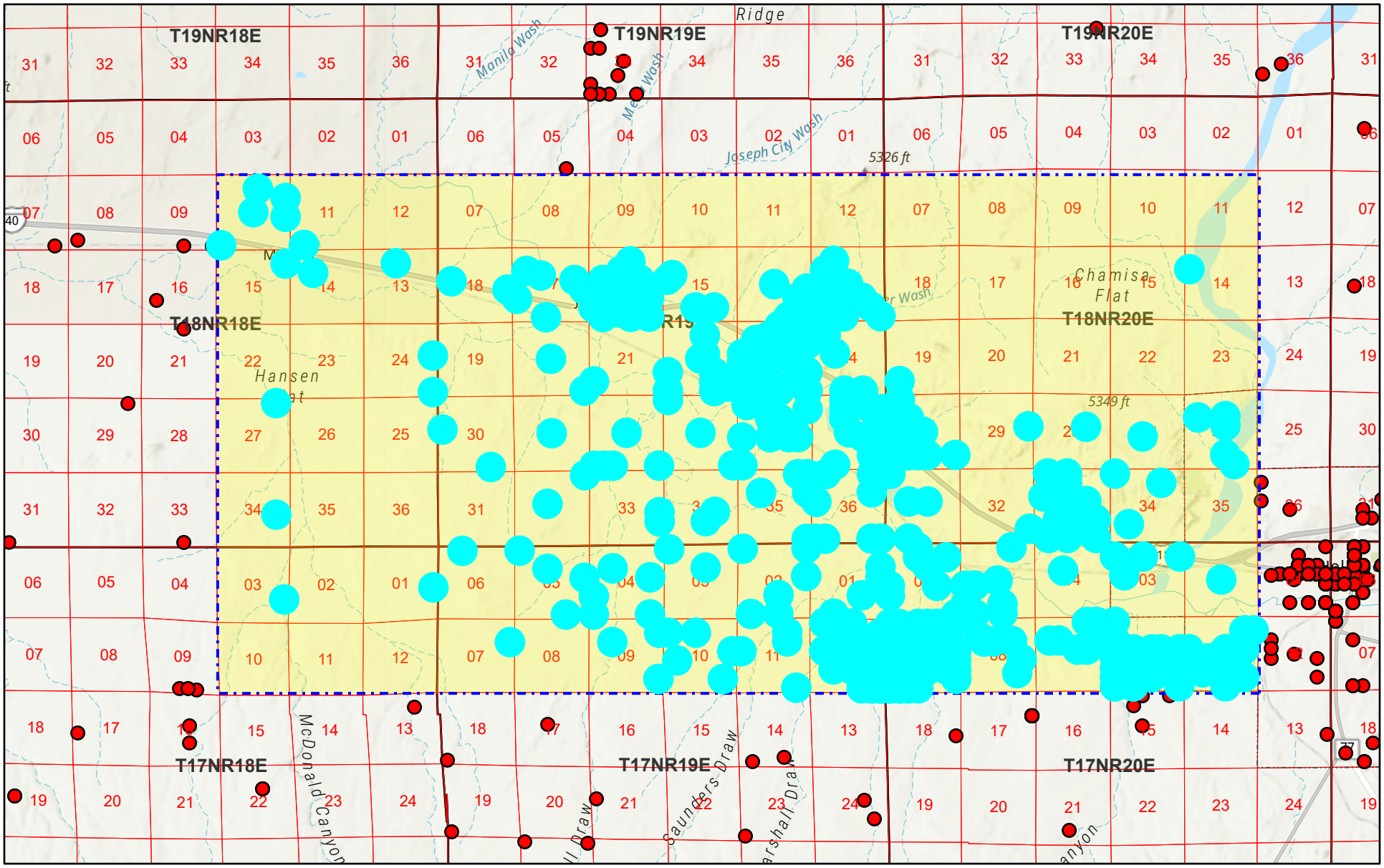
ADWR Well Registry Review Q1 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPI	Pump Data Availabl	Completion Repo	Log Receivec	WSP Notes
929922		A18019016BDA	THRIFTWAY MARKETING CORPORATION	OTHER	27				7/10/2023			NO	A		NOI for Geotechnical Boring received at ADWR on 7/10/2023 - No evidence of well installation as of Q3 2023
930125		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN CHRIS WELDON)	MONITOR	15	14	2	9/6/2023	8/24/2023	13		NO		X	Evidence suggests this well has been installed on 9/6/2023 but drill report is not available in ADWR database as of Q1 2024
930126		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: CHRIS WELDON)	MONITOR	15	14	2	9/6/2023	8/24/2023			NO		X	Evidence suggests this well has been installed on 9/6/2023 but drill report is not available in ADWR database as of Q1 2024
930127		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: CHRIS WELDON)	MONITOR	15	14	2	9/6/2023	8/24/2023	11		NO		X	Evidence suggests this well has been installed on 9/6/2023 but drill report is not available in ADWR database as of Q1 2024
930402		A18020030CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	55	48	1	10/25/2023	10/25/2023	Not Specified	Not Specified	NO	NO	X	Well Driller Report and Well Log Received/Entered on January 8, 2024. Well drill report has not been uploaded to the ADWR database at the time the Wells 55 search was completed.
930403		A18020030CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	32	35	4	10/26/2023	10/25/2023	Not Specified	Not Specified	NO	NO	X	Well Driller Report and Well Log Received/Entered on January 8, 2024. Well drill report has not been uploaded to the ADWR database at the time the Wells 55 search was completed.
930404		A18020030CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					10/25/2023			NO		X	Drilling card issued. Database report indicates the well was not drilled 'per drillers logs'. Drillers logs are not included in the database at the time the Wells 55 search was completed.
930553		A18019013000	ARIZONA PUBLIC SERVICE COMPANY	OTHER					12/14/2023			NO			NOI received on 12/14/2023. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Well completion report has not been filed with ADWR by the time the Q1 2024 review was completed
930554		A18019014000	ARIZONA PUBLIC SERVICE COMPANY	OTHER					12/14/2023			NO			NOI received on 12/14/2023. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Well completion report has not been filed with ADWR by the time the Q1 2024 review was completed
930555		A18019013CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					12/14/2023			NO			Drilling card issued for an environmental monitoring well. Well completion report has not been filed with ADWR by the time the Q1 2024 review was completed. Authorization expires 12/14/2024

Key:

New Well in Registry as of Q1 2024

ADWR_Registry Review_01102024_2



January 10, 2024

Well_Registry
Section
County
City Boundaries
Township

1:144,448

0 1 2 4 mi
0 1.5 3 6 km

Esri, NASA, NGA, USGS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management,

Arizona Department of Water Resources

ADWR Well Registry Review Q2 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
085087		A17020010BCD	TURLEY, BRENT,	EXEMPT	85	30	7	10/1/1980	7/11/1980	18	300	NO			
085104		A17019012ADA	JOHNSON,M D	EXEMPT	200	68	6	11/3/1980	9/24/1997	40	30	NO	X	X	
085257		A17020007DAB	MEIKLE & RUSSELL,	EXEMPT	175	58	6	1/1/1980	9/24/1997	80	0	NO			
085748		A18019022ACC	RANDALL,D S	EXEMPT	365	365	8	8/29/1980	9/24/1980	74	0	NO			
085794		A18020033BAD	ERKKILA,W O	EXEMPT	200	140	6	1/1/1980	9/24/1997	100	0	NO			
086109		A18019023000	ARIZONA PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086110		A18019023000	AZ PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086111		A18019023000	AZ PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086112		A18019023000	AZ PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086141		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	88	88	14	1/1/1980	9/24/1997	25	0	NO	A		
086142		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	87	87	14	1/1/1980	9/24/1997	25	0	NO	A		
086143		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	90	90	14	1/1/1980	9/24/1997	25	0	NO	A		
086144		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	83	83	14	1/1/1980	9/24/1997	25	0	NO	A		
086145		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	80	80	14	1/1/1980	9/24/1997	25	0	NO	A		
086146		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	86	86	14	1/1/1980	9/24/1997	25	0	NO	A		
086147		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	85	85	14	1/1/1980	9/24/1997	25	0	NO	A		
086148		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	83	83	14	1/1/1980	9/24/1997	25	0	NO	A		
086149		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	90	90	14	1/1/1980	9/24/1997	25	0	NO	A		
086150		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	87	87	14	1/1/1980	9/24/1997	25	0	NO	A		
086151		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	63	63	14	1/1/1980	9/24/1997	25	0	NO	A		
086152		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	42	42	14	1/1/1980	9/24/1997	0	0	NO	A		
086153		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	45	45	14	1/1/1980	9/24/1997	45	0	NO	A		
086184		A18020033CAC	EGBERT,A	NON-EXEMPT	165	75	6	1/1/1980	9/24/1997	65	0	NO			
087057		A17020007BCA	SARAH V. HANCOCK	EXEMPT	175	60	6	6/27/1981	8/1/1981	85	0	NO	X	X	
204270		A18020034BBB	RANDY MURPH	NON-EXEMPT	240	100	8	3/13/2005	7/8/2004	41		NO		X	
205717		A18019022DDB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					10/29/2004			NO			
205718		A18019022DCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					10/29/2004			NO			
205719		A18019023CCA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	47	45	4	3/9/2005	10/29/2004	34		NO		X	
205720		A18019023CCA	ARIZONA PUBLIC SERVICE CO	MONITOR	47	45	2	3/9/2005	10/29/2004	35		NO	A	X	
207696		A17020007AAA	JACK R PICKETT JR	EXEMPT	175	60	6	5/29/2005	5/4/2005	67	16	NO	X	X	
207948		A17020005CCC	MARIBEL LUNA	EXEMPT	160	54	6	7/18/2005	6/20/2005	46		NO		X	
211590		A18020033BDD	RAYMOND H TURLEY	EXEMPT	250	137	7	6/3/2006	3/24/2006	100		NO	X	X	
212756		A18020033CDA	WILLIAM WIEGAND	EXEMPT	160	93	5	7/19/2006	7/3/2006	70	13	NO	X	X	
214839		A18019023CBD	KLEINFELDER, INC	OTHER								NO			App date 3/7/2007, denied app for specialty well
215327		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	32	30	5	4/25/2007	3/30/2007	19		NO		X	
215328		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	32	30	5	4/24/2007	3/30/2007	19		NO		X	
215329		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	32	30	5	4/24/2007	3/30/2007	19		NO		X	
215330		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	30	29	5	4/24/2007	3/30/2007	19		NO		X	
215331		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	30	28	5	4/25/2007	3/30/2007	19		NO		X	
215540		A18019023CCA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR				6/12/2009	4/26/2007			NO		X	
215541		A18019023CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	50	50	5	6/13/2007	4/26/2007	38		NO		X	
217762		A18019016CCA	DELWIN OR EVELYN SOLOMON	NON-EXEMPT	400	400	8	9/18/2008	5/8/2008	45	400	NO	X	X	
220206		A18019023CDB	ARIZONA PUBLIC SERVICE	OTHER					10/15/2010			NO			
220297		A17020010DAA	CITY OF HOLBROOK	NON-EXEMPT	200	41	16	5/13/2011	12/30/2010	20	1400	NO	X	X	
220453		A18019023C00	ARIZONA PUBLIC SERVICE COMPANY	OTHER	0	0	0	11/9/2011	3/22/2011	42		NO		X	
220454		A18019022DD0	ARIZONA PUBLIC SERVICE COMPANY	OTHER	0	0	0	11/10/2011	3/21/2011	40		NO		X	
221778		A18019023CDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	62	60	4	11/6/2012	10/12/2012	42		NO		X	
221779		A18019023CDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	62	60	4	11/6/2012	10/12/2012	42		NO		X	
221780		A18019023CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	62	60	4	11/7/2012	10/15/2012	42		NO		X	
226669		A18018010CCC	ANTONIO & CYNTHIA JAQUEZ	MONITOR					12/7/2016			NO			
231033		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
231034		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
231035		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
231036		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR					8/26/2019			NO	A		
231037		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
232663		A17019003BBB	EL PASO NATURAL GAS COMPANY, LLC., A KINDER MORGAN COMPANY	OTHER	20	490	12	9/2/2020	7/25/2020			NO	A	X	
233176		A18019016DCB	THRIFTWAY MARKETING CORPORATION	MONITOR								NO			App date 10/18/2020, marked as denied
233177		A18019016CDA	THRIFTWAY MARKETING CORPORATION	MONITOR								NO			App date 10/18/2020, marked as denied
233178		A18019016CAD	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233179		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020
233180		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233181		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, Denied 12/13/2020
233182		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233183		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233184		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020. Denied as of 12/23/2020
233185		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, Denied 12/13/2020
233186		A18019016CAD	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233187		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233264		A17019012DAD	ARIZONA PUBLIC SERVICE COMPANY	EXEMPT	390	79	7	12/16/2020	10/30/2020	92		NO		X	
233265		A18019028CCD	ARIZONA PUBLIC SERVICE	EXEMPT	247	148	7	12/16/2020	10/30/2020	22		NO		X	
233713		A18019016DCB	THRIFTWAY MARKETING CORPORATION	MONITOR	28	28	2	2/22/2021	1/27/2021			NO		X	ADWR records sent to APS in 2021 Q4
233714		A18019016CDA	THRIFTWAY MARKETING CORPORATION	MONITOR	28	28	2	2/24/2021	1/27/2021			NO		X	ADWR records sent to APS in 2022 Q1 after expanded area of review
236622		A17020011AAC	ALEX W & JENNIE B HATCH	EXEMPT					3/28/2022			NO		X	Drill authority issued 4/13/22 - Updated Records were added to ADWR as of 7/06/22 Well Review. Sent to APS
238560		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	111	99	2	5/25/2023	3/30/2023	22		NO		X	No records available as of 2023 Q2
238561		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	65	64	4	5/23/2023	3/30/2023	18		NO		X	No records availale as of 2023 Q2
238562		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	113	112	4	5/23/2023	3/30/2023	24		NO		X	No records availale as of 2023 Q2
238563		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	67	66	4	5/9/2023	3/30/2023	20		NO		X	No records availale as of 2023 Q2
238564		A18020030CAB	ARIZONA PUBLIC SERVICE	MONITOR	113	110	2	5/19/2023	3/30/2023	27		NO		X	No records available as of 2023 Q2
238565		A18020030CAB	ARIZONA PUBLIC SERVICE	MONITOR	100	96	2	5/22/2023	3/30/2023	22		NO		X	No records available as of 2023 Q2
238566		A18020030CAB	ARIZONA PUBLIC SERVICE	OTHER	112			5/15/2023	3/30/2023			NO	A	X	No records availale as of 2023 Q2
239280		A18019016DBC	THRIFTYWAY MARKETING CORPORTION	OTHER	27				7/11/2023			NO	A		

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
239455		A18019016DBC	THRIFTWAY MARKETING CORPORATION	OTHER					8/4/2023			NO			
482933		A18019028CCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	220	148	7	12/16/2020	7/23/2020	22		NO		X	
482992		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	51	46	1		4/29/2021			NO	A		
482994		A18020030BDB	ARIZONA PUBLIC SERVICE	MONITOR	76	76	1		4/29/2021			NO	A		
482995		A18020030BDB	ARIZONA PUBLIC SERVICE	MONITOR	56	55	1		4/29/2021			NO	A		
500636		A17020004BD0	SCHADE,J	NON-EXEMPT	250	70	8	1/1/1981	9/24/1997	20	0	NO	X	X	
500712		A17020007CBD	NEWMAN AND JESSICA JOHN	EXEMPT	215	80	5	9/18/1981	8/17/1981	0	0	NO	C	X	
500726		A17020007CBA	JOHN HARDY	EXEMPT	195	80	5	8/21/1981	8/18/1981	49	75	NO	X	X	
501812		A17020010BDC	SHUMWAY,D	EXEMPT	100	39	6	5/1/1982	1/19/1982	24	0	NO	C	X	
502100		A18019016DDC	BARRETT,W W	EXEMPT	280	245	5	9/22/1982	2/23/1982	35	35	NO	X	X	
502294		A17020007ABB	ROBERT L. AND SYLVIA A. VARIAN	EXEMPT	270	229	6	4/1/1982	3/16/1982	20	0	NO	X	X	
502410		A17020010CCC	FERGUSON,M E	NON-EXEMPT	0	0	0		3/19/1982	0	0	NO			
502455		A18019016DDC	RANDALL,D	NON-EXEMPT	0	0	0		3/25/1982	0	0	NO			
502730		A17020007BBC	GERALD F BRIGGS	EXEMPT	160	57	5	8/20/1982	4/30/1982	90	0	NO	C	X	
503829		A17020010CCB	FRED & GAIL JOE	EXEMPT	200	200	0		8/26/1982	60	0	NO	X	X	
503847		A17020007CCC	EDWIN & BRENDA BURROUGHS	EXEMPT	200	79	8	5/8/1983	8/30/1982	37	0	YES	C	X	
503848		A17020007BBB	EDWIN & BRENDA BURROUGHS	EXEMPT	200	79	8	4/22/1983	8/30/1982	51	0	YES	C	X	
503984		A18020033DAC	SCHADE,J	EXEMPT	200	201	6	10/14/1982	9/21/1982	90	0	NO	X	X	
504944		A17019012DCA	JANKA,D	EXEMPT	200	70	7	6/20/1983	3/9/1983	57	0	NO	C	X	
505119		A18019016DDC	RANDALL, A BLAINE,	NON-EXEMPT	450	280	12	8/15/1983	4/5/1983	40	800	NO	X	X	
505356		A17020007BDD	MYERS, JOHN JR,W	NON-EXEMPT	0	0	0		5/10/1983	0	0	NO			
505455		A17019012ADC	ALLEN,C G	EXEMPT	200	69	6	6/1/1983	5/23/1983	70	24	NO	X	X	
505634	345312110122501	A17020010ACC	HOLBROOK, TOWN OF,	NON-EXEMPT	105	87	12	7/1/1983	6/14/1983	13	1450	YES	X	X	
506364		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	108	104	5	10/7/1983	9/21/1983	22	0	NO	N	X	
506365		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	54	54	5	10/11/1983	9/21/1983	20	0	NO	N	X	
506366		A18019024BBD	ARIZONA PUBLIC SERVICE	EXEMPT	118	65	5	10/21/1983	9/21/1983	26	0	NO	A	X	
506367		A18019013DBD	AZ PUBLIC SERVICE,	EXEMPT	93	84	5	10/14/1983	9/21/1983	45	0	NO	N	X	
506368		A18019013CDD	AZ PUBLIC SERVICE,	EXEMPT	93	75	5	10/19/1983	9/21/1983	32	0	NO	N	X	
506369		A18019023AAC	AZ PUBLIC SERVICE,	EXEMPT	39	0	0	10/26/1983	9/21/1983	0	0	NO	N	X	
506370		A18019023ADA	AZ PUBLIC SERVICE,	EXEMPT	159	58	5	10/26/1983	9/21/1983	29	0	NO	N	X	
506371		A18019023DAB	AZ PUBLIC SERVICE,	EXEMPT	54	47	5	11/1/1983	9/21/1983	37	0	NO	N	X	
506372		A18019023ACA	AZ PUBLIC SERVICE,	EXEMPT	94	65	5	10/4/1983	9/21/1983	32	0	NO	N	X	
506586		A18019023ABB	ARIZONA PUBLIC SERVICE COMPANY	OTHER	58	58	5	11/2/1983	11/1/1983	36	0	NO	N	X	
506587		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	40	35	5	11/4/1983	11/1/1983	3	0	NO	A	X	
507508		A17020007BDA	PENROD, JOHNNY,E	NON-EXEMPT	195	70	7	5/15/1984	3/20/1984	49	14	NO	X	X	
508359		A17020007AAA	JANSEN,H	EXEMPT	0	0	0		6/12/1984	0	0	NO			
509947		A17019012BAC	BELSHE,M T	EXEMPT	166	166	6	12/26/1984	12/20/1984	90	28	NO	X	X	
510154		A17020010CBB	BISSONNETTE & SMITH	EXEMPT	98	40	6	6/5/1985	1/28/1985	33	15	NO	X	X	
511029		A17020007CBA	TRACY OR JANELLA PERKINS	EXEMPT	195	80	5	10/1/1981	5/2/1985	60	35	NO	X	X	
511169		A18019023B00	HARCO CORP,	OTHER	205	205	10	5/23/1985	5/17/1985	0	0	NO	N	X	
511932		A17020007ACA	GROSS,K H	EXEMPT	0	0	0		7/30/1985	0	0	NO			
513840		A17020007DDA	THOMAS HENSON	NON-EXEMPT	170	50	6	5/2/1986	3/28/1986	90	27	NO	X	X	
514992		A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	250	80	8	8/25/1986	7/25/1986	130	245	YES	X	X	
515770		A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	200	80	0	11/7/1987	10/7/1986	54	3	NO	X	X	
516042		A17020007DAD	JANSEN, CORNELIS,	NON-EXEMPT	175	50	6	11/4/1986	11/14/1986	42	20	NO	X	X	
518211		A17020007BBB	TERMAIN, DEBORA,L	EXEMPT	200	40	6	3/17/1988	6/19/1987	39	0	NO	C	X	
518943		A18019015BC0	EL PASO NATURAL GAS,	OTHER	500	190	8	10/15/1987	9/2/1987	0	0	NO	N	X	
519638		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	12	10	1	12/2/1987	11/13/1987	0	0	NO	N	X	
519639		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	12	10	1	12/2/1987	11/13/1987	4	0	NO	N	X	
519640		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	12	10	1	12/2/1987	11/13/1987	4	0	NO	N	X	
519760		A17020007ABD	MEGGAN P MURPH	EXEMPT	150	32	6	7/10/1988	12/1/1987	35	20	NO	X	X	
520217		A17020007CDD	YAZZIE, ALFRED,	EXEMPT	180	60	6	2/10/1989	2/9/1988	60	0	NO	C	X	
521468		A17019012BBA	MAXWELL, MYRON,	EXEMPT	200	67	6	5/12/1989	6/14/1988	75	12	NO	X	X	
524566		A18019023000	AZ PUBLIC SERVICE,	OTHER	185	40	6	6/8/1989	5/17/1989	0	0	NO	N	X	
527034		A17020007ABA	CHRISTOPHER & SHERRA DUNSMORE	EXEMPT	150	30	6	4/30/1990	2/2/1990	45	0	NO	C	X	
527039		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527040		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527041		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527042		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527043		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527044		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527045		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527046		A17019012DDC	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527047		A17019012DDC	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527048		A17019012DDC	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527278		A18020026DCD	HOLBROOK, TOWN OF,	NON-EXEMPT	0	0	0		3/2/1990	0	0	NO	N		
527279		A18020026BCA	HOLBROOK, TOWN OF,	NON-EXEMPT	0	0	0		3/2/1990	0	0	NO	N		
527280		A18020026ACC	HOLBROOK, TOWN OF,	NON-EXEMPT	78	78	7	3/10/1990	3/2/1990	17	0	NO	N	X	
527281		A18020026ACB	HOLBROOK, TOWN OF,	NON-EXEMPT	300	300	6	3/4/1990	3/2/1990	229	0	NO	N	X	
527282		A18020026DCB	HOLBROOK, TOWN OF,	NON-EXEMPT	42	42	6	3/8/1990	3/2/1990	0	0	NO	N	X	
528697		A18020034ABD	JENNINGS, MOLLIE,	NON-EXEMPT	460	395	0	7/10/1990	7/9/1990	254	300	NO	X	X	
529604		A18019016DCB	RADIAN CORP,	MONITOR	18	10	2	5/28/1991	5/20/1991	13	0	NO	N	X	
529605		A18019016DCB	RADIAN CORP,	MONITOR	15	10	2	5/29/1991	5/20/1991	13	0	NO	N	X	
529606		A18019016DCC	RADIAN CORP,	MONITOR	25	20	2	5/28/1991	5/20/1991	13	0	NO	N	X	
529607		A18019016DCA	RADIAN CORP,	MONITOR	15	10	2	5/28/1991	5/20/1991	13	0	NO	N	X	
531124		A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	275	20	14	5/28/1991	3/7/1991	12	750	NO	X	X	
533811		A18019013CCA	AZ PUBLIC SERVICE,	MONITOR	259	258	5	1/22/1992	11/26/1991	114	0	NO	N	X	
533812		A18019013CCA	AZ PUBLIC SERVICE,	MONITOR	293	292	5	1/12/1992	11/26/1991	83	0	NO	N	X	
533813		A18019023AAA	AZ PUBLIC SERVICE,	MONITOR	280	279	5	12/16/1991	11/26/1991	80	0	NO	N	X	
533814		A18019013CCA	AZ PUBLIC SERVICE,	MONITOR	62	62	5	1/27/1992	11/26/1991	4	0	NO	N	X	
533815		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/26/1991	0	0	NO	N		
533816		A18019023AAA	AZ PUBLIC SERVICE,	MONITOR	240	238	5	12/19/1991	11/26/1991	80	0	NO	N	X	
533817		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	141	140	5	2/15/1992	11/26/1991	30	0	NO	N	X	
533818		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/26/1991	0	0	NO	N		

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
533819		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/26/1991	0	0	NO	N		
533820		A18020030CAA	AZ PUBLIC SERVICE,	MONITOR	96	20	5	2/15/1992	11/26/1991	30	0	NO	N	X	
534511		A17020011BCC	JEFFERS, MARIA,	NON-EXEMPT	0	0	0		2/20/1992	0	0	NO			
535278		A18020029ADD	BRIMHALL SAND & ROCK,	NON-EXEMPT	420	420	10	6/3/1992	5/12/1992	251	0	NO	C	X	
536055		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	40	18	4	7/23/1992	7/16/1992	33	0	NO	N	X	
536056		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	21	0	0	7/20/1992	7/16/1992	20	0	NO	N	X	
536057		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	51	0	0	7/21/1992	7/16/1992	50	0	NO	N	X	
536058		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	30	0	0	7/22/1992	7/16/1992	30	0	NO	N	X	
536059		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	40	0	0	7/28/1992	7/16/1992	33	0	NO	N	X	
537495		A18020031CDC	WESTOVER, BOYD,L	EXEMPT	125	125	0	2/2/1993	12/1/1992	6	0	NO	C	X	
538790		A17020007CDC	MYERS, JOHN JR,W	NON-EXEMPT	200	200	5	4/22/1993	4/15/1993	0	40	NO	X	X	
539095		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	5/27/1993	5/12/1993	5	0	NO	C	X	
539096		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	5/28/1993	5/12/1993	5	0	NO	C	X	
539097		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	7/8/1993	5/12/1993	5	0	NO	C	X	
539098		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	7/8/1993	5/12/1993	5	0	NO	C	X	
539099		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	7/9/1993	5/12/1993	5	0	NO	C	X	
539100		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	20	0	0	7/7/1993	5/12/1993	5	0	NO	C	X	
539101		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	12	0	0	7/7/1993	5/12/1993	1	0	NO	C	X	
539102		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	21	0	0	7/7/1993	5/12/1993	5	0	NO	C	X	
539103		A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	6/1/1993	5/12/1993	1	0	NO	A	X	
539104		A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	6/2/1993	5/12/1993	1	0	NO	A	X	
539105		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539106		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539107		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539108		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539109		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539110		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539111		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539112		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539113		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539114		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539115		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539116		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539117		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539118		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539119		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	20	10	2	5/19/1993	5/12/1993	1	0	NO	N	X	
539120		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	20	10	2	5/19/1993	5/12/1993	1	0	NO	N	X	
539121		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	20	10	2	5/19/1993	5/12/1993	1	0	NO	N	X	
539225		A17020007DAA	GARY AND MELISSA HUNT	EXEMPT	174	54	5	6/18/1993	5/18/1993	74	30	NO	X	X	
539859		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		7/12/1993	0	0	NO			
539860		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/21/1993	7/12/1993	25	0	NO		X	
539861		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/23/1993	7/12/1993	25	0	NO		X	
539862		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/22/1993	7/12/1993	25	0	NO		X	
539863		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	35	35	5	7/25/1993	7/12/1993	25	0	NO		X	
539864		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/24/1993	7/12/1993	25	0	NO		X	
539986		A18020031BBB	HUNT, BOYCE,B	EXEMPT	130	30	61	9/7/1993	7/16/1993	105	0	NO	C	X	
540040		A18019016DCC	RADIAN CORP,	MONITOR	20	20	4	9/15/1993	8/17/1993	14	0	NO	N	X	
540041		A18019016DCC	RADIAN CORP,	MONITOR	20	20	4	9/16/1993	8/17/1993	15	0	NO	N	X	
540042		A18019016DCA	RADIAN CORP,	MONITOR	20	20	4	9/16/1993	8/17/1993	13	0	NO	N	X	
540668		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	45	45	4	9/23/1993	9/15/1993	23	0	NO	N	X	
540669		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		9/15/1993	0	0	NO	N		
540670		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	0	0	0		9/15/1993	0	0	NO	N		
540671		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	0	0	0		9/15/1993	0	0	NO	N		
540672		A18019022DBD	ARIZONA PUBLIC SERVICE	MONITOR	45	45	4	9/24/1993	9/15/1993	18	0	NO	A	X	
541134	345512110151701	A18020031ACC	KEMPTON, CARL,	EXEMPT	160	100	6	11/8/1993	10/20/1993	115	0	NO	C	X	
541684		A18019015BCC	EL PASO NATURAL GAS,	OTHER	500	180	8	12/17/1993	12/3/1993	0	0	NO	N	X	
541711	345531110124101	A18020027CAA	DALE MCKINNON	NON-EXEMPT	460	320	8	3/25/1994	12/6/1993	207	0	NO	C	X	
546245		A18019023CDA	APS,	OTHER	187	187	6	12/9/1994	10/28/1994	0	0	NO	N	X	
546582		A17020010CBB	KENNEVINA LEE	EXEMPT	250	250	6	12/28/1994	11/14/1994	57	0	NO	C	X	
547033		A18019023CDD	APS,	OTHER	25	0	0	1/9/1995	12/30/1994	25	0	NO	N	X	
547034		A18019023CDD	APS,	MONITOR	46	45	4	1/9/1995	12/30/1994	25	0	NO	N	X	
547035		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	46	45	4	1/10/1995	12/30/1994	25	0	NO	A	X	
547036		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	46	45	4	1/11/1995	12/30/1994	25	0	NO	A	X	
547037		A18019023CDD	APS,	MONITOR	0	0	0		12/30/1994	0	0	NO	N		
547038		A18019023CDD	APS,	MONITOR	0	0	0		12/30/1994	0	0	NO	N		
547039		A18019023CDD	APS,	MONITOR	0	0	0		12/30/1994	0	0	NO	N		
547253		A18020030000	ARIZONA PUBLIC SERVICE COMPANY	OTHER	37	0	0	6/7/1995	6/2/1995	0	0	NO	N	X	
547254		A18019025000	ARIZONA PUBLIC SERVICE COMPANY	OTHER	50	0	0	6/14/1995	6/2/1995	0	0	NO	N	X	
548409		A17020007BAC	KEVIN DIPIAZZA	EXEMPT	145	54	6	7/18/1995	3/6/1995	60	18	NO	X	X	
552166		A18020033BBA	CLINTON HADDOX	EXEMPT	0	0	0		9/18/1995	0	0	NO			
552869		A17020005CBB	LOPEZ, ODELL,	EXEMPT	100	41	6	12/30/1995	10/16/1995	34	20	NO	X	X	
553267		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	49	49	5	12/21/1995	11/30/1995	2	25	NO	X	X	
553268		A18020030CCB	ARIZONA PUBLIC SERVICE	MONITOR	50	50	4		11/30/1995	0	0	NO	A		
553269		A18020030CCC	AZ PUBLIC SERVICE,	MONITOR	45	45	4	12/19/1995	11/30/1995	9	0	NO	N	X	
553270		A18019036AAB	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/30/1995	0	0	NO	N		
553271		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	45	20	4	12/18/1995	11/30/1995	29	0	NO	N	X	
558134		A17020010ADD	FISH BROS, LLC	NON-EXEMPT	200	42	12	10/29/1996	6/6/1996	5	0	NO	X	X	
558423		A17020010CCC	FERGUSON, MICHAEL,	NON-EXEMPT	205	20	6	11/3/1996	6/17/1996	57	0	NO	C	X	
560489		A18020030CCC	AZ PUBLIC SERVICE,	MONITOR	30	0	4	2/11/1997	11/26/1996	29	0	NO	N	X	
562218		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR	0	0	0		4/22/1997	0	0	NO	N		
562329		A18018010CCC	JAQUEZ JR, ANTONIO,	MONITOR	0	0	0		4/22/1997	0	0	NO	A		
562330		A18018010CCC	JAQUEZ JR, ANTONIO,	MONITOR	0	0	0		4/22/1997	0	0	NO	A		
562331		A18018010CCC	JAQUEZ JR, ANTONIO,	MONITOR	0	0	0		4/22/1997	0	0	NO	A		
562332		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR	25	5	2	4/16/1998	4/22/1997	15	0	NO	A	X	

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
562333		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR	25	5	4	4/17/1998	4/22/1997	15	0	NO	A	X	
566113		A17020005CBA	MARCELINO & ROSA PONCE	EXEMPT	125	52	8	7/24/1998	12/2/1997	41		NO		X	
566237		A18019018BCD	DELWIN OR EVELYN SOLOMON	EXEMPT	400	155	10	5/13/1998	12/4/1997	14		NO		X	
566723		A17020007CDB	ARTHUR OR MAJORI MAHER	EXEMPT	205	47	7	1/6/1999	1/27/1998	80		NO	X	X	
567466		A17020005CCB	FERNANDO AND ROBIN LEDEZMA	EXEMPT	130	431	6	11/4/1998	2/27/1998	50		NO		X	
568830		A17020010CBB	ALICE JOHNSON	EXEMPT	160	51	6	7/20/1998	6/5/1998	60		NO		X	
569370		A17019003BBB	EL PASO NATURAL GAS CO. LLC., A KINDER MORGAN COMPANY	OTHER	500	130	8	9/27/1998	6/19/1998			NO	A	X	
570836		A17019010CBA	LUCAS AND GRAVES DEVELOPMENT, INC	EXEMPT					9/14/1998			NO			
573258		A18018010ABC	THE CAROL A SHAFF REVOCABLE TRUST	EXEMPT	280	233	8	3/24/1999	2/8/1999	83		NO		X	
573582		A17020006BAA	BOYD L WESTOVER	EXEMPT					3/4/1999			NO			
577823		A17020007CDB	JOHN OR JOANN MYERS	EXEMPT					1/27/1998			NO			
578122		A17020007BAC	JOHNNY E PENROD	EXEMPT					11/5/1999			NO			
578284		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578285		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578286		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578287		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578288		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578289		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578290		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578291		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578292		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578293		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578294		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578295		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578296		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578297		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578298		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578299		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578300		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578301		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578302		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578303		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578304		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578305		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
579540		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR	40	30	2	3/23/2000	2/8/2000	42		NO		X	
579541		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR	60	50	2	3/28/2000	2/8/2000	27		NO		X	
579542		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	62	52	2	3/22/2000	2/8/2000			NO		X	
579543		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	85	75	2	3/27/2000	2/8/2000	25		NO		X	
579544		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	85	75	2	3/23/2000	2/8/2000	37		NO		X	
579545		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	104	90	2	3/20/2000	2/8/2000	90		NO		X	
579546		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	83	73	2	3/21/2000	2/8/2000	46		NO		X	
580114		A17020007BCC	BRYANT PETERSEN	NON-EXEMPT	205	55	6	5/12/2000	3/20/2000	621	27	NO	X	X	
580185		A17020006BAA	BOYD L WESTOVER	EXEMPT	173	38	6	8/15/2000	3/16/2000	26		NO		X	
582885		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
582886		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
582887		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
582888		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
583834		A17020007BAA	KENNETH H EDINGER	EXEMPT	160	60	6	12/18/2000	10/11/2000	49		NO	X	X	
585020		A17020007CCD	JOHN OR JOANN MYERS	EXEMPT	208	60	5	4/10/2001	1/2/2001	78		NO	X	X	
588000		A18019016CAC	HARTLEY TURLEY	OTHER					7/19/2001			NO			
588012		A18019016CAC	HARTLEY TURLEY	MONITOR	45	45	4	3/8/2002	7/19/2001	26		NO		X	
588013		A18019016CAC	HARTLEY TURLEY	MONITOR	40	40	4	3/6/2002	7/19/2001	9		NO	A	X	
588014		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO	A		
588015		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO	A		
588016		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO	A		
588017		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588018		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588019		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588020		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588021		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
590313		A17020010CBB	ANTHONY AND CARLA JEWETT	EXEMPT	200	60		6/7/2002	12/24/2001	74		NO		X	
590553		A17020007CBB	DUANE RAY CHARLEY	EXEMPT	220	55	5	2/28/2002	1/14/2002	81		NO	X	X	
590554		A17020007CBC	ROBERT MCLAWS	EXEMPT	215	50	5	3/8/2002	1/14/2002	86		NO	X	X	
592674		A17020007BAA	BOBBIE C WRIGHT	EXEMPT	205	45	6	8/9/2002	5/20/2002	57		NO		X	
592774		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	30				5/28/2002			NO	A		
592775		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
592776		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
592777		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
592778		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
593169		A18019034DBC	MILTON H DESPAIN	EXEMPT	115	50	6	9/7/2002	6/20/2002	43		NO		X	
593851		A18019016CAC	HARTLEY TURLEY	MONITOR					7/30/2002			NO	A		
594035		A18018010CCC	JACKRABBIT TRADING POST	MONITOR					8/9/2002			NO			
594036		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				8/9/2002			NO	A		
594037		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				8/9/2002			NO	A		
594038		A18018010CCC	JACKRABBIT TRADING POST	MONITOR					8/9/2002			NO			
594039		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				8/9/2002			NO	A		
594796		A18019023CDD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					9/27/2002			NO			
594797		A18019023CDD	ARIZONA PUBLIC SERVICE COMPANY	OTHER					9/27/2002			NO			
595839		A18019016CAC	HARTLEY TURLEY	MONITOR	15	11			11/18/2002	20		NO	A	X	
595846		A18019016CAC	HARTLEY TURLEY	MONITOR	15	14	1		11/18/2002	20		NO	A	X	
595849		A18019016CAC	HARTLEY TURLEY	MONITOR	10	10	4		11/18/2002	20		NO	A	X	
599261		A18019017CDD	JOSEPH CITY SANITARY DISTRICT	MONITOR	30	30	6	8/5/2003	7/1/2003	6		NO		X	
600208	345302110123801	A17020010CAC	SHUMWAY, DREW,	NON-EXEMPT	200	20	12	1/1/1940	10/7/1981	30	600	NO	N	N	
600239	345424110125101	A17020003BAD	SHUMWAY, DREW,	NON-EXEMPT	500	65	12	1/1/1960	10/7/1981	31	400	NO	N	N	

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
600240		A17020011CAC	SHUMWAY, DREW,	NON-EXEMPT	400	60	12	1/1/1960	10/7/1981	30	500	NO	N	N	
600241		A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	200	10	8	1/1/1950	10/7/1981	3	150	NO	N	N	
600242		A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	1/1/1950	10/7/1981	3	200	NO	N	N	
600243		A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	1/1/1950	10/7/1981	3	200	NO	N	N	
600245		A17020005CCD	SHUMWAY, DREW,	NON-EXEMPT	225	10	10	1/1/1940	10/7/1981	10	300	YES	N	N	
600246	345342110141201	A17020005DCC	SHUMWAY, DREW,	NON-EXEMPT	225	20	10	1/1/1955	10/7/1981	0	150	NO	N	N	
600247	345342110141301	A17020005DCB	SHUMWAY, DREW,	NON-EXEMPT	225	20	10	1/1/1955	10/7/1981	3	150	NO	N	N	
600248	345420110124301	A17020003BBC	FUELCO TRAVEL CENTER,	NON-EXEMPT	495	60	10	3/15/1972	10/7/1981	27	300	NO	N	N	
600249		A17020010DBC	SHUMWAY, DREW,	NON-EXEMPT	210	20	8	1/1/1940	10/7/1981	50	100	NO	N	N	
600250	345247110110401	A17020011DDB	SHUMWAY, DREW,	NON-EXEMPT	410	65	12	1/20/1973	10/7/1981	40	300	NO	N	N	
600251		A17020005ABA	SHUMWAY, DREW,	NON-EXEMPT	350	20	8	2/21/1974	10/7/1981	100	300	YES	N	N	
600252		A17020010DDA	SHUMWAY, DREW,	NON-EXEMPT	225	42	12	2/27/1980	10/7/1981	75	300	NO	N	N	
600253		A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	200	10	12	10/18/1978	10/7/1981	20	400	NO	N	N	
600254		A17020003BCD	SHUMWAY, DREW,	NON-EXEMPT	200	20	8	1/1/1940	10/7/1981	3	100	NO	N	N	
600255	345314110121401	A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	1/1/1940	10/7/1981	3	100	NO	N	N	
600256	345303110120501	A17020010DAC	SHUMWAY, DREW,	EXEMPT	280	10	10	1/1/1940	10/7/1981	35	30	NO	N	N	
600372		A17019012DAC	DAVID DESPAIN	NON-EXEMPT	300	71	6	2/14/1975	9/28/1981	50	100	YES	N	X	
600373		A17019012DBC	DAVID DESPAIN	NON-EXEMPT	250	70	8	4/3/1977	9/28/1981	80	100	NO	X	X	
600374		A17018001DAA	AZTEC LAND & CATTLE,	EXEMPT	180	60	6	5/15/1946	9/28/1981	160	5	NO	N	N	
600375	345445110192501	A18019033DAA	AZTEC LAND CO. LLC.	EXEMPT	100	40	6	6/10/1946	9/28/1981	20	12	NO	N	N	
600376		A18019017DAA	F B HANSEN	EXEMPT	450	120	8	1/1/1945	9/28/1981	90	20	NO	N	N	
600377	345324110123801	A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	75	5	12	1/1/1940	9/28/1981	18	500	NO	N	N	
600378	345324110123901	A17020010BDC	DAVID & DEBBIE SHUMWAY	NON-EXEMPT	75	5	12	1/1/1940	9/28/1981	18	100	NO	N	N	
600383	345345110245701	A17018003DAD	AZTEC LAND & CATTLE,	EXEMPT	130	20	6	1/1/1930	9/28/1981	100	7	NO	N	N	
600521		A17020007ABC	JANSEN,H W	NON-EXEMPT	250	12	12	8/1/1971	12/16/1981	50	150	NO	N	N	
600527		A18019016000	RANDALL, A BLAINE,	NON-EXEMPT	450	150	12	1/1/1958	12/16/1981	50	1200	NO	N	N	
601745		A17020010CDA	RICK G TAYLOR	EXEMPT	150	20	6	3/13/1978	9/18/1981	50	30	NO			
601814	345733110213501	A18019018DAA	PORTER,H D	NON-EXEMPT	322	250	8	1/1/1970	1/18/1982	20	10	NO			
601836		A17019012AAD	B & C United Energies	NON-EXEMPT	325	10	12	1/1/1962	1/19/1982	60	220	YES			
601837		A17019012ABB	ALONZO & SHARI MCLAWS	NON-EXEMPT	400	10	12	1/1/1948	1/19/1982	69	220	YES			
602175		A17020010DAB	SIMPER,A D	NON-EXEMPT	150	10	8	1/1/1950	2/4/1982	3	200	NO			
602176		A17020010DBD	COOPER & SHEALYNN REIDHEAD	NON-EXEMPT	130	48	8	1/1/1980	2/4/1982	21	200	NO			
602321		A18020033CDD	BLACK ROCK CONSTR,	NON-EXEMPT	225	45	8	7/20/1976	1/21/1982	40	400	NO			
602783		A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	100	100	6	5/10/1980	2/10/1982	46	100	NO			
602960		A17020010DAB	HEWARD,J E	EXEMPT	100	20	8	1/1/1940	2/17/1982	8	30	NO			
602961		A17020008ACA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	150	20	8	1/1/1940	2/17/1982	1	150	NO			
602962		A17020008ACA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	200	20	10	1/1/1940	2/17/1982	1	200	NO			
602963		A17020008DAB	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	225	35	10	1/1/1940	2/17/1982	28	400	YES			
602964		A17020008BDA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	150	20	6	1/1/1940	2/17/1982	1	100	NO			
602965	345320110144710	A17020008BDB	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	200	20	10	1/1/1940	2/17/1982	12	600	YES			
603167		A17020010CAB	MICHAEL & ERNESTINE KAFFER	NON-EXEMPT	150	20	8	1/1/1950	2/18/1982	30	350	NO			
603770		A18020033000	THOMPSON,G C	NON-EXEMPT	210	100	6	4/1/1964	9/14/1982	100	60	NO			
603796		A18019016CAA	CORNELIS E. & KRISTI J. JANSEN	NON-EXEMPT	450	0	0	1/1/1946	9/10/1981	0	75	YES			
603863	345314110112401	A17020011ACC	HEYWOOD,Y	NON-EXEMPT	300	0	12	8/1/1964	2/19/1982	50	450	NO			
603864	345314110112301	A17020011ACC	HEYWOOD,Y	NON-EXEMPT	200	0	4	1/1/1952	2/19/1982	50	40	NO			
603865		A17020011ACC	PACIFIC UNION CONFERENCE OF SEVENTH-DAY ADVENTISTS	EXEMPT	150	150	8	6/1/1974	2/19/1982	30	0	NO			
604008		A18020033000	DESPAIN,E R	NON-EXEMPT	235	100	6	8/1/1964	9/21/1981	100	150	NO			
604247		A17020011CBB	L. GRANT BRINKERHOFF	NON-EXEMPT	0	0	6		2/26/1982	21	100	NO			
604273		A17020007DBC	ROY WHITE	NON-EXEMPT	175	121	8	7/1/1979	3/4/1982	82	100	YES			
604646		A18020033BC0	PARISH,J D	NON-EXEMPT	250	80	8	11/28/1973	3/12/1982	67	60	NO			
604689	345308110125301	A17020010CAA	D'AMICO, DONALD,R	NON-EXEMPT	150	150	12	1/1/1957	3/11/1982	15	1100	YES			
604690		A17020010CAA	HOLBROOK, CITY OF,	NON-EXEMPT	60	40	12	1/1/1935	3/11/1982	10	1000	YES			
604691	345310110122901	A17020010CAA	HOLBROOK, CITY OF,	NON-EXEMPT	50	30	12	1/1/1935	3/11/1982	10	450	NO			
604918		A17020007CCB	DARRELL A & CYNTHIA L STEEN	NON-EXEMPT	200	126	6	7/3/1979	3/8/1982	80	35	YES			
604926		A17020011000	BRIGHAM YOUNG UNIV.,	NON-EXEMPT	0	0	0	9/5/1961	3/10/1982	0	0	NO			
605139		A17019012ACA	B & C United Energies	NON-EXEMPT	408	13	10	1/1/1977	3/22/1982	74	300	YES			
605141		A17020010BCB	MC LAWS,W	NON-EXEMPT	100	221	5	1/1/1965	3/22/1982	12	100	NO			
605469	345447110132801	A18020033CDA	WILLIAM WIEGAND	NON-EXEMPT	208	208	6	12/31/1946	4/7/1982	165	120	NO	A		
605470		A17020010BCB	MC LAWS,C L	NON-EXEMPT	100	0	8	7/1/1962	4/7/1982	8	0	NO			
605617		A18020034C00	JENNINGS,C L	NON-EXEMPT	300	150	8	3/1/1973	3/31/1982	120	45	NO			
605778		A17020005000	DEWITT,M	NON-EXEMPT	240	18	12	5/20/1974	3/31/1982	46	500	YES			
605779		A17020011000	DEWITT,H K	NON-EXEMPT	175	15	12	1/1/1970	3/31/1982	30	350	NO			
606476		A17020010CBB	JEFFERS,J C	NON-EXEMPT	0	0	0		4/30/1982	0	0	NO			
606477		A17020010CBB	JEFFERS,J C	NON-EXEMPT	150	0	0		4/30/1982	17	0	NO			
606478		A17020011CAB	JEFFERS,J C	NON-EXEMPT	200	0	0	1/1/1953	4/30/1982	0	300	NO			
606495		A17020007BBC	HILDEBRAND,R E	NON-EXEMPT	400	8	12	6/12/1973	4/26/1982	67	374	YES			
606498		A17020011C00	ADAIR,F R	NON-EXEMPT	125	20	6		4/26/1982	26	50	NO			
606720		A18020033BAC	DESPAIN,R E	NON-EXEMPT	350	129	11	1/1/1974	5/3/1982	90	100	NO			
606724		A17020008D00	J-S FARMS, INC.	EXEMPT	0	0	0		5/3/1982	0	35	NO			
606725		A17020008D00	J-S FARMS, INC.	EXEMPT	0	0	0		5/3/1982	0	35	NO			
606801	345833110244901	A18018010ADA	THE CAROL A SHAFF REVOCABLE TRUST	EXEMPT	50	50	6	1/1/1910	4/16/1982	30	20	NO			
607766		A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	460	10	12	1/1/1960	5/7/1982	92	525	NO			
607767		A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	250	10	7	12/1/1976	5/7/1982	94	100	NO			
607768		A17020007BDC	JOHN W. MYERS, JR.	NON-EXEMPT	150	51	6	11/1/1976	5/7/1982	47	100	NO			
607769		A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	180	8	8	1/1/1966	5/7/1982	81	100	NO			
608472	345637110191901	A18019022CBC	LARRY E. & AVA RACHELE BALDWIN	NON-EXEMPT	440	343	10	3/17/1967	5/10/1982	10	1000	NO			
609539		A18019016CD0	NEAL,T R	NON-EXEMPT	200	0	3	1/1/1936	5/25/1982	19	0	NO			
609540		A18019016CD0	NEAL,T R	NON-EXEMPT	200	0	8	1/1/1934	5/25/1982	19	500	NO			
609578		A17020007BDC	PENROD, JOHNNY,E	NON-EXEMPT	400	10	12	1/1/1970	5/14/1982	90	700	YES			
609959		A18020033D00	SCHADE,G L	NON-EXEMPT	150	130	6	1/1/1940	5/24/1982	0	0	NO			
610650		A17020007DAD	JEAN GEORGE	NON-EXEMPT	250	9	9	3/10/1974	5/23/1982	49	75	YES			
613088		A18019026ACB	AZ PUBLIC SERVICE,	NON-EXEMPT	595	695	30	1/1/1961	6/10/1982	0	1200	YES			
613089	345434110171201	A18019036CCC	AZ PUBLIC SERVICE,	NON-EXEMPT	350	55	10	12/1/1961	6/10/1982	27	950	YES	X		
613090	345434110170501	A18019036CCD	AZ PUBLIC SERVICE,	NON-EXEMPT	350	60	24	3/8/1962	6/10/1982	37	2000	YES			

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
613091	345345110175201	A17019002DBC	AZ PUBLIC SERVICE,	NON-EXEMPT	487	320	16	8/1/1967	6/10/1982	55	750	YES			
613092	345251110182601	A17019010DDB	AZ PUBLIC SERVICE,	NON-EXEMPT	550	38	24	2/1/1977	6/10/1982	100	450	YES			
613093	345526110200601	A18019028CDC	AZ PUBLIC SERVICE,	NON-EXEMPT	245	58	12	10/27/1978	6/10/1982	14	800	YES	X		
613094	345340110193001	A17019004DDC	AZ PUBLIC SERVICE,	NON-EXEMPT	550	61	24	3/5/1978	6/10/1982	87	1000	YES			
613095	345415110200801	A17019004BDB	AZ PUBLIC SERVICE,	NON-EXEMPT	430	85	24	7/1/1978	6/10/1982	30	900	YES	X		
613096		A17019012BCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	458	79	7	12/16/2020	6/10/1982	103	900	NO		X	
613097	345316110170910	A17019012CAC	ARIZONA PUBLIC SERVICE	NON-EXEMPT	576	78	11	12/16/2020	6/10/1982	97	600	NO		X	
613098		A18019020DDD	AZ PUBLIC SERVICE,	NON-EXEMPT	0	0	8		6/10/1982	0	0	NO			
613099		A17020006DDD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	127	25	5	12/16/2020	6/10/1982	58	0	NO		X	
613125		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	45	0	2		6/10/1982	24	0	NO			
613126		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	6	0	2		6/10/1982	2	0	NO			
613127		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	8	0	0		6/10/1982	0	0	NO			
613128		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	10	0	0		6/10/1982	1	0	NO			
613129		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	12	0	0		6/10/1982	2	0	NO			
613130		A18019026BDA	AZ PUBLIC SERVICE,	EXEMPT	15	0	0		6/10/1982	15	0	NO			
613131		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	45	0	0		6/10/1982	20	0	NO			
613132		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	8	0	0		6/10/1982	2	0	NO			
613133		A18019026BDA	AZ PUBLIC SERVICE,	EXEMPT	18	0	0		6/10/1982	17	0	NO			
613134		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	45	0	0		6/10/1982	17	0	NO			
613135		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	10	0	0		6/10/1982	8	0	NO			
613136		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	6	0	0		6/10/1982	1	0	NO			
613137		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	8	0	0		6/10/1982	1	0	NO			
613138		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	18	0	0		6/10/1982	0	0	NO			
613139		A18019026ACC	AZ PUBLIC SERVICE,	EXEMPT	14	0	0		6/10/1982	12	0	NO			
613140		A18019026ACD	AZ PUBLIC SERVICE,	EXEMPT	45	0	0		6/10/1982	18	0	NO			
613141		A18019026ACD	AZ PUBLIC SERVICE,	EXEMPT	18	0	0		6/10/1982	16	0	NO			
613142		A18019026ACD	AZ PUBLIC SERVICE,	EXEMPT	35	0	0		6/10/1982	13	0	NO			
613143		A18019021CCB	AZ PUBLIC SERVICE,	EXEMPT	1005	267	10	1/1/1977	6/10/1982	8	0	NO			
613144		A18019028DDD	AZ PUBLIC SERVICE,	EXEMPT	374	0	12		6/10/1982	13	0	NO			
613145		A18019026CBB	AZ PUBLIC SERVICE,	EXEMPT	570	0	0	1/1/1959	6/10/1982	30	0	NO			
613146	345339110202401	A17019004CCC	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		6/10/1982	0	0	NO			
613147		A18019028DDD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		6/10/1982	0	0	NO			
613148		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	595	595	0	1/1/1961	6/10/1982	0	0	NO			
613149	345613110180601	A18019026BBA	AZ PUBLIC SERVICE,	EXEMPT	570	185	12	1/1/1959	6/10/1982	0	0	NO			
613150		A18019035BDB	AZ PUBLIC SERVICE,	EXEMPT	57	50	6	8/23/1973	6/10/1982	45	0	NO			
613151		A18019026CAA	AZ PUBLIC SERVICE,	EXEMPT	57	53	6	8/28/1973	6/10/1982	40	0	NO			
613152		A18019025CDC	ARIZONA PUBLIC SERVICE CHOLLA POWER PLANT	EXEMPT	56	49	6	8/30/1973	6/10/1982	32	0	NO	A		
613153		A18019026DAB	AZ PUBLIC SERVICE,	EXEMPT	92	80	6	9/4/1973	6/10/1982	40	0	NO			
613154		A18019022DCA	AZ PUBLIC SERVICE,	EXEMPT	100	100	6	9/7/1973	6/10/1982	5	0	NO			
613155		A17019012BBA	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		6/10/1982	0	0	NO	A		
613158	345751110231101	A18018013BAD	AZ PUBLIC SERVICE,	EXEMPT	1005	290	16	4/8/1978	6/10/1982	35	0	NO			
613159	345802110243601	A18018011CCD	AZ PUBLIC SERVICE,	EXEMPT				1/17/1978	6/10/1982		0	NO			
613163		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	77	50	1	10/31/1978	6/10/1982	77	0	NO			
613164		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	44	28	1	10/31/1978	6/10/1982	28	0	NO			
613165		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	177	88	1	11/1/1978	6/10/1982	62	0	NO			
613166		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	164	88	1	11/1/1978	6/10/1982	20	0	NO			
613167		A18019023AAB	AZ PUBLIC SERVICE,	EXEMPT	137	88	1	11/1/1978	6/10/1982	54	0	NO			
613168		A18019023AAB	AZ PUBLIC SERVICE,	EXEMPT	50	33	2	10/31/1978	6/10/1982	1	0	NO			
613169		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	154	114	1		6/10/1982	29	0	NO			
613170		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	102	87	1		6/10/1982	27	0	NO			
613171		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	292	277	2		6/10/1982	74	0	NO			
613172		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	50	18	1	3/21/1979	6/10/1982	9	0	NO			
613173		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	3/22/1979	6/10/1982	19	0	NO			
613174		A18019014DAA	AZ PUBLIC SERVICE,	EXEMPT	80	48	1	3/20/1979	6/10/1982	52	0	NO			
613175		A18019014DDB	AZ PUBLIC SERVICE,	EXEMPT	81	41	1	3/12/1979	6/10/1982	30	0	NO			
613176		A18019014DAC	AZ PUBLIC SERVICE,	EXEMPT	80	53	1	8/21/1979	6/10/1982	77	0	NO			
613177		A18019013CAA	AZ PUBLIC SERVICE,	EXEMPT	62	40	1	3/9/1979	6/10/1982	32	0	NO			
613178		A18019014DCD	AZ PUBLIC SERVICE,	EXEMPT	67	38	1	3/11/1979	6/10/1982	39	0	NO			
613179		A18019014DCD	AZ PUBLIC SERVICE,	EXEMPT	67	38	1	3/11/1979	6/10/1982	41	0	NO			
613180		A18019014DCD	AZ PUBLIC SERVICE,	EXEMPT	54	31	1	3/23/1979	6/10/1982	33	0	NO			
613181		A18019013CAD	AZ PUBLIC SERVICE,	EXEMPT	57	25	1	3/8/1979	6/10/1982	30	0	NO			
613182		A18019013CAD	AZ PUBLIC SERVICE,	EXEMPT	53	28	1	2/26/1979	6/10/1982	33	0	NO			
613183		A18019013CCA	AZ PUBLIC SERVICE,	EXEMPT	70	43	1	3/8/1979	6/10/1982	40	0	NO			
613184		A18019013CCA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	3/7/1979	6/10/1982	32	0	NO			
613185		A18019013CCA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	2/25/1979	6/10/1982	18	0	NO			
613186		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	2/25/1979	6/10/1982	3	0	NO			
613187		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	50	25	1	2/24/1979	6/10/1982	0	0	NO			
613188		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	55	21	1	2/23/1979	6/10/1982	21	0	NO			
613189		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	55	31	1	2/22/1979	6/10/1982	7	0	NO			
613190		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	60	33	1	2/21/1979	6/10/1982	0	0	NO			
613191		A18019023AAB	AZ PUBLIC SERVICE,	EXEMPT	58	37	0	3/6/1979	6/10/1982	5	0	NO			
613192		A18019023ABA	AZ PUBLIC SERVICE,	EXEMPT	50	27	1	2/27/1979	6/10/1982	12	0	NO			
613193		A18019025DAA	AZ PUBLIC SERVICE,	EXEMPT	26	16	1		6/10/1982	16	0	NO			
613194		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	56	41	1		6/10/1982	17	0	NO			
613195		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	77	57	1		6/10/1982	18	0	NO			
613196		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	146	133	2		6/10/1982	27	0	NO			
613197		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	92	52	1		6/10/1982	70	0	NO			
613198		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	191	175	2		6/13/1982	69	0	NO			
613199		A18019025ADA	AZ PUBLIC SERVICE,	EXEMPT	112	32	1		6/10/1982	97	0	NO			
613200		A18019025AAD	AZ PUBLIC SERVICE,	EXEMPT	132	32	1		6/10/1982	117	0	NO			
613201		A18020019CCA	AZ PUBLIC SERVICE,	EXEMPT	54	32	1	4/6/1979	6/10/1982	0	0	NO			
613202		A18020030DDA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/7/1979	6/10/1982	0	31	NO			
613203		A18019025AAC	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/7/1979	6/10/1982	39	0	NO			
613204		A18019025ABA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/8/1979	6/10/1982	0	0	NO			

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613205		A18019024DCD	AZ PUBLIC SERVICE,	EXEMPT	57	35	1	4/8/1979	6/10/1982	0	0	NO			
613206		A18020030DCB	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	3/27/1979	6/10/1982	0	0	NO			
613207		A18020030DCB	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	3/26/1979	6/10/1982	53	0	NO			
613208		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	3/27/1979	6/10/1982	0	0	NO			
613209		A18020030CDB	AZ PUBLIC SERVICE,	EXEMPT	51	29	1	4/5/1979	6/10/1982	0	0	NO			
613210		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/6/1979	6/10/1982	0	0	NO			
613211		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	70	43	1	4/6/1979	6/10/1982	58	0	NO			
613212		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	51	29	1	4/5/1979	6/10/1982	18	0	NO			
613213		A18020030CBA	AZ PUBLIC SERVICE,	EXEMPT	120	88	1	5/19/1979	6/10/1982	55	0	NO			
613214		A18020030CBA	AZ PUBLIC SERVICE,	EXEMPT	120	88	2	5/16/1979	6/10/1982	96	0	NO			
613215		A18020030CBA	AZ PUBLIC SERVICE,	EXEMPT	116	88	1	5/7/1979	6/10/1982	77	0	NO			
613216		A18020030CBB	AZ PUBLIC SERVICE,	EXEMPT	70	43	1	3/26/1979	6/10/1982	11	0	NO			
613217		A18020030CBB	AZ PUBLIC SERVICE,	EXEMPT	37	19	1	4/3/1979	6/10/1982	21	0	NO			
613218		A18020030BCC	AZ PUBLIC SERVICE,	EXEMPT	100	79	1	5/1/1979	6/10/1982	59	0	NO			
613219		A18019030BCC	AZ PUBLIC SERVICE,	EXEMPT	103	81	1	4/18/1979	6/10/1982	80	0	NO			
613220		A18019025ADD	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	4/4/1979	6/10/1982	51	0	NO			
613221		A18019025ADD	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/4/1979	6/10/1982	21	0	NO			
613222		A18019025ADD	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/3/1979	6/10/1982	13	0	NO			
613223		A18019025ADA	AZ PUBLIC SERVICE,	EXEMPT	80	58	1	5/8/1979	6/10/1982	57	0	NO			
613399	345315110181201	A170190118CC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	340	260	24	10/15/1974	6/9/1982	94	1250	YES			
613400	345413110184401	A17019003ACB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	260	24	7/17/1974	6/9/1982	105	638	YES	X	X	
613401	345247110172301	A17019011DDC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	299	24	3/1/1977	6/9/1982	96	750	YES			
613402	345344110165101	A17019001CDC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	470	279	24	1/1/1977	6/9/1982	69	1000	YES			
613403	345411110161601	A17019001ADA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	390	278	24	11/1/1976	6/9/1982	39	700	YES	X		
613404	345444110192501	A18019033DAD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	410	269	24	10/26/1977	6/9/1982	26	600	YES			
613405	345322110200201	A17019009BDB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	415	239	24	12/19/1978	6/9/1982	92	1250	YES	X		
613406	345256110192401	A17019009DDA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	319	24	12/20/1977	6/9/1982	126	1250	YES			
613407	345415110210301	A17019005BDA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	490	279	24	1/1/1978	6/9/1982	64	850	YES	X		
613408	345500110210301	A18019032BDD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	314	24	6/13/1978	6/9/1982	98	1050	YES	X		
613409	345424110221301	A17019006BAB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	363	24	4/10/1978	6/9/1982	179	500	YES			
613410	345323110173001	A17019011ACA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	530	319	24	7/1/1977	6/9/1982	82	800	YES			
613411	345354110162701	A17019001DBD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	400	24	4/1/1977	6/9/1982	65	450	YES			
613412	345342110204801	A17019005DCD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	365	259	24	7/1/1978	6/9/1982	69	500	YES			
613413		A18019027BBB	AZTEC LAND & CATTLE CO LTD	EXEMPT	840	285	10	1/1/1977	6/9/1982	14	0	NO			
613414		A17019005BBB	AZTEC LAND & CATTLE CO LTD	EXEMPT	1020	282	10	1/1/1977	6/9/1982	111	0	NO			
613415		A17019001ADD	AZTEC LAND & CATTLE CO LTD	EXEMPT	755	50	10	1/1/1977	6/9/1982	45	0	NO			
613416		A17019009AAD	AZTEC LAND & CATTLE CO LTD	EXEMPT	780	44	10	1/1/1977	6/9/1982	100	0	NO			
613417		A18019027DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	900	163	10	1/1/1977	6/9/1982	14	0	NO			
613418		A18019035DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	560	120	11	12/31/1977	6/9/1982	65	0	NO	X	X	
613421		A18019035DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	520	57	10	1/1/1977	6/9/1982	33	0	NO			
613422		A18019030DCD	AZTEC LAND & CATTLE CO LTD	EXEMPT	670	288	10	6/1/1977	6/9/1982	72	0	NO			
613423	345321110213001	A17019007ADA	AZTEC LAND & CATTLE CO LTD	EXEMPT	555	141	10	1/1/1977	6/9/1982	92	0	NO			
613424		A18019032AAA	AZTEC LAND & CATTLE CO LTD	EXEMPT	854	136	11	8/1/1978	6/9/1982	25	0	NO			
613425		A17019005ADD	AZTEC LAND & CATTLE CO LTD	EXEMPT	845	112	10	7/21/1978	6/9/1982	42	0	NO			
613429	345608110250001	A18018027AAB	AZTEC LAND & CATTLE CO LTD	EXEMPT	555	190	11	6/28/1977	6/9/1982	0	0	NO		X	
613443	345618110224001	A18018024DDD	AZTEC LAND AND CATTLE CO., LTD	EXEMPT	338	338	24	8/15/1978	6/9/1982	0	0	NO	X	X	
613444		A18018024ADD	AZTEC LAND AND CATTLE CO., LTD	EXEMPT	785	278	10	1/1/1977	6/9/1982	20	0	NO			
614307		A18020028ACD	AZ STATE LAND DEPT,	EXEMPT	0	0	0	1/1/1975	6/14/1982	0	17	NO			
614308		A18020032DDA	AZ STATE LAND DEPT,	EXEMPT	100	0	9	1/1/1958	6/14/1982	0	0	NO	X		
616734		A17020010000	DANIEL J & BEKI A HEALY	NON-EXEMPT	75	3	8	1/1/1950	5/25/1982	25	250	NO			
616735		A17020008B00	JUAN BARRERAS	NON-EXEMPT	350	60	10	4/1/1959	5/25/1982	45	395	YES			
617195		A17020007000	BURRELL,M J	NON-EXEMPT	250	16	8	3/1/1975	6/2/1982	90	60	YES			
617485		A17020011AAD	MYERS,J	NON-EXEMPT	270	100	12	1/1/1932	4/16/1982	11	100	NO			
618132		A17020010CCB	FARMERS HOME,	EXEMPT	150	150	6	1/1/1977	6/9/1982	50	35	NO			
618962		A17020007ABA	BRUCE & CHELSIE GERMAIN	NON-EXEMPT	135	7	12	4/1/1975	6/11/1982	46	97	YES			
618963		A17020007ABA	NEWTON,F E	EXEMPT	135	7	12	4/1/1975	6/11/1982	4634	34000	NO			
619248		A17020010CDA	JORDAN AUTOBEE	NON-EXEMPT	200	40	6	1/1/1940	6/14/1982	60	100	NO			
619249		A17020010CBB	BRANDON & BRIGGETTE BRIMHALL	NON-EXEMPT	150	20	6	1/1/1978	6/14/1982	30	50	NO			
619389		A17020007ADD	DAVENPORT,M	NON-EXEMPT	235	50	10	1/1/1974	6/14/1982	40	300	YES			
619460		A17020007CCB	FIRKINS,J L	EXEMPT	200	0	6	1/16/1979	6/14/1982	80	35	YES			
620357		A17020010CDB	FERGUSON,E J	NON-EXEMPT	180	0	12		6/14/1982	25	1000	NO			
620358		A17020010CBA	FERGUSON,E J	NON-EXEMPT	100	22	12		6/14/1982	22	600	NO			
620359		A17020010CBA	FERGUSON,E J	NON-EXEMPT	100	15	10	1/1/1968	6/14/1982	22	400	NO			
620360		A17020010CCC	WILSON,G	NON-EXEMPT	180	30	10	1/1/1974	6/14/1982	50	1000	NO			
620686		A17020007ABA	KEENE SR,R J	NON-EXEMPT	150	12	12	3/5/1975	6/14/1982	48	3	YES			
620722	345414110153601	A17020006ACB	JOSEPH CITY IRRIGATION COMPANY	NON-EXEMPT	403	8	14	2/1/1948	6/14/1982	32	1009	YES	X	X	
620723	345401110153201	A17020006DBA	JOSEPH CITY IRRIGATION COMPANY	NON-EXEMPT	300	240	14	4/17/2009	6/14/1982	19	744	YES	X	X	
620724	345736110204201	A18019017ADC	JOSEPH CITY IRRIG CO,	NON-EXEMPT	425	275	12	1/1/1975	6/14/1982	90	1200	YES			
621980	345327110154701	A17020007BAD	MCLAWS,J R	NON-EXEMPT	200	10	10		6/14/1982	45	100	NO			
622735	345313110110401	A17020011ADC	DAVIS,L W	NON-EXEMPT	0	0	8	1/1/1952	5/19/1982	0	50	NO			
627200		A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	460	10	12	1/1/1960	2/9/1982	92	525	YES			
627201		A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	180	8	8	1/1/1966	2/9/1982	8	100	NO			
627202		A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	250	10	7	12/12/1976	2/9/1982	74	100	NO			
627203		A17020007BDC	ZUFELT, L. MAYNARD,	NON-EXEMPT	150	51	6	11/1/1976	2/9/1982	47	100	NO			
627238		A18018015AAD	ATCHISON-TOPEKA,	NON-EXEMPT	43	43	8	1/1/1941	6/10/1982	0	0	NO			
627252		A17020006AAC	ATCHISON-TOPEKA,	NON-EXEMPT	80	80	6	2/27/1940	6/10/1982	0	0	NO			
628494	345727110200501	A18019016000	JOSEPH CITY WATER,	NON-EXEMPT	460	300	10	1/1/1946	5/13/1982	70	300	NO			
628495	345722110212901	A18019017CBC	JOSEPH CITY WATER,	NON-EXEMPT	390	290	10	9/7/1972	5/13/1982	50	600	YES			
628496	345720110212601	A18019017CBC	JOSEPH CITY WATER,	NON-EXEMPT	400	300	10	10/1/1977	5/13/1982	50	600	YES			
628497	345726110200601	A18019016000	JOSEPH CITY WATER,	NON-EXEMPT	500	300	10	1/1/1942	5/13/1982	70	300	NO			
628564		A17020007000	EDWIN & BRENDA BURROUGHS	NON-EXEMPT	250	35	6		6/21/1982	65	65	YES			
629256	345714110201901	A18019016CCA	DELWIN OR EVELYN SOLOMON	NON-EXEMPT	425	0	10		6/17/1982	20	1000	YES	A		
629415		A17020010000	DAVID & DEBBIE SHUMWAY	NON-EXEMPT	200	20	12	1/1/1970	6/25/1982	40	500	NO			
629686	345320110151601	A17020007AAC	MELINDA WHITE	EXEMPT	0	0	0		3/2/1982	0	35	NO			

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
629709		A17020010CBB	BRANDON & BRIGGETTE BRIMHALL	EXEMPT	115	20	6	1/1/1979	3/1/1982	40	20	NO			
629893		A18020033ACD	DILLOW,W C	EXEMPT	170	90	6	3/1/1980	2/4/1982	70	25	NO			
630190		A17020007DBB	MCLAWS,G T	EXEMPT	400	0	14	4/1/1961	2/19/1982	90	2	NO			
631391		A17020007BBB	PAGE, FRANK,L	EXEMPT	175	48	6	1/12/1980	3/23/1982	155	25	NO			
632346		A17020010CC0	ALBERT M FERNIZA	EXEMPT	275	20	8	1/1/1973	4/6/1982	55	5	NO			
632472		A17020010ACC	MAURICE L. JONES	EXEMPT	200	12	6	5/16/1978	5/3/1982	52		NO	X	X	
633413		A17020010DDD	TERMAIN,D	NON-EXEMPT	103	18	8	3/1/1968	6/21/1982	13	110	NO			
633414		A17020010ACD	TERMAIN,D	NON-EXEMPT	100	10	8	4/1/1975	6/21/1982	8	100	NO			
637905		A18020033BCA	HOLYOAK,J	EXEMPT	170	40	6	3/19/1980	6/14/1982	100	35	NO			
638034		A18020031BDC	HUNT,D	EXEMPT	130	40	9	10/20/1980	6/14/1982	33	25	NO			
638807		A17020009BDB	DAVIE & CYNTHIA MOYA	NON-EXEMPT	0	0	15		6/14/1982	0	30	NO			
638808		A17020009BDB	MARVIN & KAREN MCLEMORE	EXEMPT	0	0	9		6/14/1982	0	30	NO			
638809		A17020009BDB	HARKEY, JOHN,	EXEMPT	0	0	9		6/14/1982	0	0	NO			
641097		A17020007CCC	KILEY AND ABBIE REIDHEAD	EXEMPT	220	10	6	2/11/1975	4/15/1982	120	0	NO	X	X	
641098		A17020007CCC	JAMES PRUITT	EXEMPT	180	10	6	2/8/1975	4/15/1982	100	0	NO	X	X	
641524		A18020033BAA	MYERS,V W	EXEMPT	265	0	6		4/13/1982	140	0	NO			
641851		A18020033CAC	PERKINS,W D	EXEMPT	200	81	7	5/1/1979	4/27/1982	70	30	NO			
642511		A18018011CCD	HANSEN BROTHERS	EXEMPT	810	220	11	1/17/1978	6/8/1982	33	0	NO		X	
642512		A18018013BAD	NEW MEXICO-AZ LND CO,	EXEMPT	795	68	16	4/8/1978	6/8/1982	35	0	NO			
644029		A18020033BDA	EVELYN CAROLE USSHER	EXEMPT	400	125	8	7/14/1972	5/18/1982	101	30	NO			
645034	345435110134901	A18020033CCD	ROGERS,A W	EXEMPT	200	85	9	12/13/1968	6/10/1982	35	35	NO			
645218		A17020011DBD	NASH,A F	EXEMPT	0	0	0		6/8/1982	0	0	NO			
645315		A17020011ACD	ALLEN MITCHELL	EXEMPT	120	0	8		6/11/1982	55	20	NO			
645395		A17019012BDD	CATHLEEN MILEHAM	EXEMPT	0	8	12		6/4/1982	89	0	NO			
648192		A17020010CBB	JOSEPH THOMAS SANTOS	EXEMPT	125	27	8	9/21/1979	6/14/1982	60	35	NO			
650048		A17020007DAA	JEFFERY M BALOO	EXEMPT	250	12	10	8/22/1973	6/24/1982	50	35	NO			
650086		A18019022ABC	LANE,J E	NON-EXEMPT	750	750	10		7/14/1982	50	200	YES			
650137		A17020010CBC	DAVID C. & TAMMY M. HAGER	EXEMPT	200	6	8	1/1/1977	6/16/1982	45	30	NO			
650524	345310110124801	A17020010CBA	PAULSELL,J L	EXEMPT	85	45	6	1/1/1964	6/30/1982	19	0	NO			
650787		A17020010C00	COOLEY,S R	EXEMPT	100	6	3	1/1/1971	6/17/1982	50	0	NO			
801481		A17020009ABA	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	50	NO			
801482		A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	200	NO			
801483		A17020009AAB	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	50	NO			
801484		A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	0	NO			
801485		A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	0	NO			
802073		A17020011DCC	OWENS,E J	NON-EXEMPT	170	70	8	9/15/1979	3/14/1985	90	250	NO			
802290		A18019017DAA	F B HANSEN	EXEMPT	440	400	6	1/1/1946	5/20/1985	50	30	NO			
802415		A17020010CCA	THOMAS D CATERN	NON-EXEMPT	150	30	8		6/18/1985	15	300	NO			
802416		A17020010BBB	ZUFELT,K L	EXEMPT	75	8	8	1/1/1976	6/18/1985	6	0	NO			
802422		A17020007000	SIZEMORE,R E	NON-EXEMPT	0	0	6	8/1/1973	5/31/1985	30	90	NO			
803003		A17020010CBA	WESTERN SAVINGS,	EXEMPT	0	0	0		9/17/1985	0	0	NO			
805293		A18019017BD0	DOUGLAS AND PATRICIA POGUE	EXEMPT	0	0	0	12/31/1937	11/1/1988	0	0	NO			
806201		A17020011D00	SEVENTH DAY ADVENT.,	NON-EXEMPT	250	90	12	12/31/1973	11/25/1991	35	500	NO			
806202		A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	200	0	10	12/31/1945	11/25/1991	35	100	NO			
806203	345304110113601	A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	220	90	12	12/31/1971	11/25/1991	37	150	NO			
806204		A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	200	80	5	12/31/1945	11/25/1991	35	100	NO			
808211		A18018034DAB	BRYAN & CASSYDE JOLLEY	NON-EXEMPT					8/8/2001			NO			
808212	345452110245401	A18018034DAB	BRYAN & CASSYDE JOLLEY	NON-EXEMPT					8/8/2001			NO			
808461		A18019017BCA	MARCI A. & JOSEPH M. ZABADAL	EXEMPT					5/16/2003			NO			
808706		A17020010BCC	DON E OR JEANNE E HUNSAKER	EXEMPT	100	30	6	1/1/1972	11/3/2004			NO			
809098		A17020005000	JOHN & CAROLYN NATCHER	EXEMPT								NO			App dated 8/3/2006, late well registry
809311		A17019012ADD	JASON & CRYSTAL CASTILLO	EXEMPT					1/26/2009			NO			
810061		A17020010CDC	RICK & TWYLA TAYLOR	EXEMPT	200	200	6	1/1/1963	4/8/2019	70	25	NO			
810208		A18019016CCD	ELDON LARSEN	NON-EXEMPT				1/1/1950	2/17/2021			NO			
810300		A18019035ADA	ARIZONA PUBLIC SERVICE CO.	EXEMPT	450	450	10	1/1/1947	12/8/2021	30		NO			
810301		A18019023DAD	ARIZONA PUBLIC SERVICE CO.	EXEMPT	550	550	16	1/1/1959	12/8/2021	50		NO			
901893		A18019016CCB	ADOT, ATTN: J.J. LIU	MONITOR	30	30	2	3/23/2005	3/16/2005	20		NO	A	X	
903874		A17020003AAD	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	30	30	2	12/20/2005	12/20/2005	13		NO	A	X	
904175		A17019010BAD	SAGE A. & DEBORAH D. SCHOLER	EXEMPT	593	593	7	2/20/2006	2/6/2006	465	18	NO	X	X	
905032		A18019016ACD	SPARTA INVESTMENTS INC.	MONITOR					6/16/2006			NO			
905034		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905035		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905036		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905037		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905038		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
906362	345435110171001	A18019036CCC	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT					2/1/2007			YES			
906363		A18019036DDC	ARIZONA PUBLIC SERVICE CORPORATION	NON-EXEMPT					2/1/2007			YES			
906364		A18019035AAB	ARIZONA PUBLIC SERVICE CORPORATION	NON-EXEMPT	481	470	20	7/15/2007	2/1/2007	30		YES		X	
906365		A18019036BBA	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	500	470	17	8/11/2007	2/1/2007	34		YES		X	
906812	345433110162101	A18019036DDD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT					4/12/2007			YES			
906917		A18019023CCD	ARIZONA PUBLIC SERVICE CO	OTHER					5/4/2007			NO			
907167		A18019023DDD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT					6/11/2007			YES			
907560		A17019011ABD	ARIZONA PUBLIC SERVICE CO	MONITOR	400	400	5	8/25/2007	8/7/2007			NO		X	
907561		A18019026CCC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	8	9/7/2007	8/7/2007	35		NO		X	
907562		A17019002AAA	ARIZONA PUBLIC SERVICE CO	MONITOR	251	250	5	8/23/2007	8/7/2007			NO		X	
907563		A17019002AAA	ARIZONA PUBLIC SERVICE CO	MONITOR	502	500	9	8/23/2007	8/7/2007	66		NO		X	
907565		A18019034DBA	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	9/22/2007	8/7/2007			NO		X	
907567		A18019036BCC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	9/19/2007	8/7/2007	38		NO		X	
907571		A17019002BBB	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	8/28/2007	8/7/2007			NO		X	
907572		A17019004ADC	ARIZONA PUBLIC SERVICE CO	NON-EXEMPT	530	520	21	10/15/2007	8/7/2007	89		NO		X	
907659		A17019010ADD	ARIZONA PUBLIC SERVICE CIMPANY	NON-EXEMPT	510	500	21	8/28/2007	8/23/2007	129		NO		X	
907660		A17019002BBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	500	490	21	2/7/2008	8/23/2007	67		NO		X	
907676		A18019016CBD	SPARTA INVESTMENTS	MONITOR	16	16	8	8/28/2007	8/27/2007	0		NO		X	
907677		A18019016CBD	SPARRA INVESTMENTS	MONITOR	40	40	2	8/28/2007	8/27/2007	25		NO		X	

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
907678		A18019016CBD	SPARTA INVESTMENTS	MONITOR	31	30	8	8/29/2007	8/27/2007	25		NO		X	
907679		A18019016CBD	SPARTA INVESTMENTS	MONITOR	31	30	8	8/29/2007	8/27/2007	25		NO		X	
907680		A18019016CBD	SPARTA INVESTMENTS	MONITOR	31	30	8	8/29/2007	8/27/2007	25		NO		X	
907681		A18019016CBD	SPARTA INVESTMENTS	MONITOR	16	16	8	8/28/2007	8/27/2007	0		NO		X	
907834		A17019002CCD	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	9/26/2007	9/21/2007	90		NO		X	
907835		A17019004CBC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	11/7/2007	9/21/2007	108		NO		X	
907836		A17019010BBC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	10/3/2007	9/21/2007	113		NO		X	
907883		A17019002ADD	ARIZONA PUBLIC SERVICE CO	MONITOR	360		8	10/8/2007	9/28/2007			NO		X	
907990		A17019002ADD	ARIZONA PUBLIC SERVICE CO	OTHER	360		8	10/9/2007	10/17/2007			NO		X	
908367		A17019002DCC	ARIZONA PUBLIC SERVICE	MONITOR	505	500	5	1/14/2008	1/18/2008	90		NO		X	
908486		A18019016DBC	SPARTA INVESTMENTS	MONITOR	30	30	8	3/3/2008	2/8/2008	25		NO		X	
908668		A18020033DDC	PACIFIC HOLT CORP.	NON-EXEMPT	300	300	8	5/27/2008	3/11/2008	72		NO		X	
908742		A17019002CCD	ARIZONA PUBLIC SERVICE CORP.	NON-EXEMPT	500	490	21	4/22/2008	3/27/2008	91		NO		X	
909085		A18019022CBC	AZTEC LAND & CATTLE CO LTD.	OTHER	90		7	5/28/2008	5/23/2008			NO	A	X	
909086		A18019016BCD	THRIFTWAY MARKETING	MONITOR	32	30	2	5/28/2008	5/23/2008	20		NO		X	
909087		A18019016BCD	THRIFTWAY MARKETING	MONITOR					5/23/2008			NO			
909088		A18019016CBD	THRIFTWAY MARKETING	MONITOR	30	30	2	5/27/2008	5/23/2008	20		NO		X	
909089		A18019016CBD	THRIFTWAY MARKETING	MONITOR	35	35	2	5/30/2008	5/23/2008	20		NO		X	
909090		A18019016CBD	THRIFTWAY MARKETING	MONITOR	32	30	2	5/28/2008	5/23/2008	20		NO		X	
909091		A18019016CBD	THRIFTWAY MARKETING	MONITOR	32	30	2	5/28/2008	5/23/2008	20		NO		X	
909092		A18019016CBD	THRIFTWAY MARKETING	MONITOR	35	35	2	5/28/2008	5/23/2008	20		NO		X	
909093		A18019016CBD	THRIFTWAY MARKETING	MONITOR	20	20	2	5/31/2008	5/23/2008			NO		X	
909094		A18019016DAC	THRIFTWAY MARKETING	MONITOR	35	35	2	5/30/2008	5/23/2008	20		NO		X	
909096		A18019016DAC	THRIFTWAY MARKETING	MONITOR	35	35	2	5/31/2008	5/23/2008	20		NO		X	
909097		A18019016DAC	THRIFTWAY MARKETING	MONITOR					5/23/2008			NO			
909098		A18019016DAC	THRIFTWAY MARKETING	MONITOR	32	32		5/29/2008	5/23/2008	20		NO		X	
909099		A18019016CBD	THRIFTWAY MARKETING	MONITOR	32	32	2	5/29/2008	5/23/2008	20		NO		X	
909100		A18019016CBD	THRIFTWAY MARKETINGT	MONITOR	32	32	2	5/29/2008	5/23/2008	20		NO		X	
909102		A18019016CBD	THRIFTWAY MARKETING	MONITOR					5/23/2008			NO			
909103		A18019016CBD	THRIFTWAY MARKETING	OTHER	20	20		5/31/2008	5/23/2008			NO		X	
909105		A18019016CBD	THRIFTWAY MARKETING	OTHER	18	18	2	5/31/2008	5/23/2008			NO		X	
909106		A18019016CBD	THRIFTWAY MARKETING	OTHER	18	18	2	5/31/2008	5/23/2008			NO		X	
909401		A17020010CCB	RONALD LEE SMITH	EXEMPT	160	160	6	7/11/2008	7/11/2008	67	25	NO	X	X	
909605		A18019016DAC	THRIFTWAY MARKETING	MONITOR	32	30	2	5/29/2008	8/20/2008	20		NO		X	
909750		A17020009ADA	HEATHER SMITH	EXEMPT	160	160	5	9/28/2008	9/17/2008	35	35	NO	X	X	
909768		A17020007BBA	GERALD BRIGGS	EXEMPT	160	160	6	9/19/2008	9/18/2008	66		NO		X	
909797		A17020006CBC	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	400	400	5	10/3/2008	9/24/2008	28		NO		X	
909801		A18019022CCC	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	535	530	5	10/30/2008	9/25/2008	30		NO		X	
909802		A17020006CBB	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	410	400	5	10/7/2008	9/25/2008	64		NO		X	
909803		A18019028CCC	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	510	500	5	11/6/2008	9/25/2008	29		NO		X	
909987		A18020030BBA	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	290	280	5	11/18/2008	10/30/2008			NO		X	
909988		A18020030BBA	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	385	380	5	11/15/2008	10/30/2008	140		NO		X	
910007		A18019025CDC	ARIZONA PUBLIC SERVICE CO	MONITOR	60		10	11/21/2008	11/6/2008			NO		X	
910008		A18019026DAB	ARIZONA PUBLIC SERVICE CO	MONITOR	90	65	5	11/22/2008	11/6/2008	30		NO		X	
910009		A18019023DDD	ARIZONA PUBLIC SERVICE CO	MONITOR	75	70	5	11/20/2008	11/6/2008	45		NO		X	
910010		A18019023DDD	ARIZONA PUBLIC SERVICE CO	MONITOR	180	170	5	12/4/2008	11/6/2008	45		NO		X	
910011		A18019026DBA	ARIZONA PUBLIC SERVICE CO	MONITOR	70	60	8	11/23/2008	11/6/2008	38		NO		X	
910012		A18019035AAA	ARIZONA PUBLIC SERVICE CO	MONITOR	46	40	8	11/24/2008	11/6/2008	34		NO		X	
910013		A18019025BDA	ARIZONA PUBLIC SERVICE CO	MONITOR	80	70	5	11/21/2008	11/6/2008	34		NO		X	
910248		A18019015CDA	LOVE'S COUNTRY STORES	MONITOR	20	20		1/14/2009	1/9/2009			NO		X	
910249		A18019015CDA	LOVE'S COUNTRY STORES	MONITOR	22				1/9/2009			NO		X	
910250		A18019015CDA	LOVE'S COUNTY STORES	MONITOR	20				1/9/2009			NO		X	
910278		A18019016CBD	ROSS ROGERS	MONITOR					1/15/2009			NO		I	
910279		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/19/2009	1/15/2009	18		NO		X	
910280		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910281		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910282		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910283		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910284		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910285		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910286		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910287		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910288		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910289		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910290		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO			
910291		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910292		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910293		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910294		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910295		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910296		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910297		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910298		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910300		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910301		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910302		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/25/2009	1/15/2009	18		NO		X	
910303		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/25/2009	1/15/2009	18		NO		X	
910304		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/25/2009	1/15/2009	18		NO		X	
910305		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910306		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910307		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910308		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910312		A18019016CBD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910313		A18019016CBD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
910314		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/29/2009	1/16/2009	18		NO		X	
910315		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910316		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910317		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910318		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910319		A18019016CBD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910320		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910321		A18019016BCD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910324		A17020006BAD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	400	240	21	4/10/2009	1/19/2009	29		NO		X	
910623		A18019023ACC	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	41	41	2	4/1/2009	4/8/2009	25		NO	A	X	
910624		A18019023000	ARIZONA DEPARTMENT OF TRANSPORTATION	OTHER	40		8	4/1/2009	4/8/2009	25		NO	A	X	
910717		A17020011000	CITY OF HOLBROOK	OTHER	45		8	5/18/2009	5/11/2009	20		NO	A	X	
910718		A17020002000	CITY OF HOLBROOK	OTHER	45		8	5/28/2009	5/11/2009	23		NO	A	X	
910723		A17020007DAC	DANIELLE FERNIZA	EXEMPT	200	100	6	6/21/2009	5/11/2009	95		NO		X	
911102		A17020002000	CITY OF HOLBROOK	OTHER					9/11/2009			NO			
911103		A17020002000	CITY OF HOLBROOK	OTHER					9/11/2009			NO			
912020		A17020009BCA	PENFIELD, CHARLENE PENFIELD, ALVIN	EXEMPT	155	155	5	5/14/2010	5/5/2010	25	25	NO	X	X	
912635		A17019012DAA	JESSIE AARYN BLINK	EXEMPT	363	100	6	12/1/2010	10/18/2010	83		NO		X	
912800		A18019013CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					12/27/2010			NO		I	
913769		A18019025BAA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	68	30		11/12/2011	11/3/2011	28		NO		X	
913770		A18019023CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	122	59		11/10/2011	11/3/2011	39		NO		X	
913771		A18019025DBA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR				11/11/2011	11/3/2011			NO		X	
913772		A18019022DDB	ARIZONA PUBLIC SERVICE COMPANY	OTHER	183			11/12/2011	11/3/2011			NO	A	X	
913983		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/16/2012			NO			
913984		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/16/2012			NO			
913985		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/16/2012			NO			
913993		A18019013DDD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/18/2012			NO			
914942		A18018014BDB	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	60	60	2	11/20/2012	11/14/2012	23		NO		X	
915393		A17020007BCC	BRYANT PETERSEN	NON-EXEMPT	220	220	6	6/3/2013	3/28/2013	68	10	NO	X	X	
916857		A17020010DCB	DAVID & DEBBIE SHUMWAY	EXEMPT					5/1/2014			NO			
917009		A18019023DCC	APS - CHOLLA POWER PLANT	OTHER					6/4/2014			NO	A	X	
917515		A18019022D00	BNSF RAILWAYS	OTHER	100		8	11/4/2014	11/6/2014	24		NO	A	X	
917536		A18019025000	ARIZONA PUBLIC SERVICE COMPANY	OTHER	61		8	11/20/2014	11/13/2014	32		NO	A	X	
917606		A18019023ACC	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	60	60	2	12/10/2014	12/8/2014	30		NO	A	X	
917710		A18019023000	ARIZONA DEPARTMENT OF TRANSPORTATION	OTHER	40			12/11/2014	1/14/2015	30		NO	A	X	
918505		A17020009ACD	TYLER KEE STINGLEY	EXEMPT	175	175	7	6/10/2015	8/6/2015	35	80	NO	X	X	
918535		A17020007ABD	SHERRA LOUISE WAHL	EXEMPT	180	180	8	8/31/2015	8/14/2015	35		NO		X	
918638		A18019025CDC	ARIZONA PUBLIC SERVICE	MONITOR	57	55	5	11/18/2015	9/11/2015	38		NO		X	
918639		A18019036ADB	ARIZONA PUBLIC SERVICE	MONITOR	35	20	4	9/16/2015	9/11/2015			NO		X	
918640		A18019025ADD	ARIZONA PUBLIC SERVICE	MONITOR	14	12	4	9/18/2015	9/11/2015			NO		X	
918641		A18020030CBB	ARIZONA PUBLIC SERVICE	MONITOR	32	29	4	9/18/2015	9/11/2015			NO		X	
918645		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR	13			9/19/2015	9/11/2015			NO		X	
918646		A18019013CAB	ARIZONA PUBLIC SERVICE	MONITOR	370	365	5	10/12/2015	9/11/2015			NO		X	
918647		A18019013CBB	ARIZONA PUBLIC SERVICE	MONITOR	425	423	5	10/21/2015	9/11/2015	197		NO		X	
918648		A18019013BCA	ARIZONA PUBLIC SERVICE	MONITOR	420	415	5	11/13/2015	9/11/2015	195		NO		X	
918649		A18019013BAC	ARIZONA PUBLIC SERVICE	MONITOR	450	445	5	11/1/2015	9/11/2015	225		NO		X	
918651		A18019023AAB	ARIZONA PUBLIC SERVICE	MONITOR					9/11/2015			NO			
918657		A18019024BBC	ARIZONA PUBLIC SERVICE	MONITOR	83	70	4	9/21/2015	9/14/2015			NO		X	
918658		A18019023CBD	ARIZONA PUBLIC SERVICE	MONITOR	97	84	5	11/17/2015	9/14/2015	42		NO		X	
918659		A18019023CBC	ARIZONA PUBLIC SERVICE	MONITOR	100	85	5	10/13/2015	9/14/2015	42		NO		X	
918660		A18019023CBC	ARIZONA PUBLIC SERVICE	MONITOR	100	85	5	10/8/2015	9/14/2015	41		NO		X	
918661		A18019023CBC	ARIZONA PUBLIC SERVICE	MONITOR	100	85	5	10/7/2015	9/14/2015	41		NO		X	
918701		A18019013DDB	ARIZONA PUBLIC SERVICES	MONITOR	60	55	5	10/5/2015	9/30/2015			NO		X	
919328		A17020009ACC	DOREEN JOHNSON	EXEMPT	250	250	6	11/8/2016	4/4/2016	40	30	NO	X	X	
919786		A18019023BAD	ARIZONA PUBLIC SERVICES (APS)	MONITOR	60	60	4	8/24/2016	8/11/2016	40		NO		X	
919787		A18019023BCC	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/25/2016	8/11/2016	40		NO		X	
919788		A18019023CCC	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/26/2016	8/11/2016	40		NO		X	
919789		A18019026AAD	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/29/2016	8/11/2016	42		NO		X	
919790		A18019024CDD	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/23/2016	8/11/2016	42		NO		X	
919791		A18019023DAB	ARIZONA PUBLIC SERVICE (APS)	MONITOR	120	118	4	8/19/2016	8/11/2016	42		NO		X	
920353		A18019021CCB	ARIZONA PUBLIC SERVICE (APS)	MONITOR	69	60	4	2/11/2017	2/3/2017	23		NO		X	
920467		A17020010BCC	MICHEAL SERNA	EXEMPT	160	160	5	4/18/2017	4/6/2017	68		NO		X	
921016		A18019022DDB	ARIZONA PUBLIC SERVICE - APS	MONITOR	126	119	4	11/4/2017	10/25/2017	50		NO		X	
921042		A18019022DDB	ARIZONA PUBLIC SERVICE (APS)	OTHER	66			11/5/2017	11/3/2017	60		NO	A	X	
921058		A18019026BBA	ARIZONA PUBLIC SERVICE	MONITOR	62	60	2	11/15/2017	11/8/2017	37		NO		X	
921059		A18019026BBA	ARIZONA PUBLIC SERVICE	MONITOR	62	60	2	11/16/2017	11/8/2017	36		NO		X	
921060		A18019023CCC	ARIZONA PUBLIC SERVICE	MONITOR					11/8/2017			NO			
921061		A18019023CCC	ARIZONA PUBLIC SERVICE	MONITOR					11/8/2017			NO			
921392		A18019026BB0	ARIZONA PUBLIC SERVICE	OTHER	51		6	2/27/2018	2/28/2018			NO		X	
921515		A18020014BCB	JAMES CASEY MURPH	EXEMPT	160	160		4/24/2018	4/2/2018	60		NO		X	
922299		A18019025DAB	ARIZONA PUBLIC SERVICE	MONITOR	25	19	4	11/14/2018	11/7/2018	14		NO		X	
922300		A18020030CBC	ARIZONA PUBLIC SERVICE	MONITOR	60	49	4	11/26/2018	11/7/2018	29		NO		X	
922301		A18019025DDB	ARIZONA PUBLIC SERVICE	MONITOR	50	45		11/15/2018	11/7/2018	34		NO		X	
922954		A18019023CCD	ARIZONA PUBLIC SERVICE	MONITOR	86	70	4	5/22/2019	5/10/2019	46		NO		X	
922955		A18019023CCC	ARIZONA PUBLIC SERVICE	MONITOR	96	82	4	5/17/2019	5/10/2019	46		NO		X	
923204		A18019015DCA	LOVES TRAVEL STOP AND COUNTRY STORES, INC	MONITOR					7/24/2019			NO			
923205		A18019015DCA	LOVES TRAVEL STOP & COUNTRY STORE, INC.	MONITOR					7/24/2019			NO			
923206		A18019015DCA	LOVES TRAVEL STOP & COUNRY STORE, INC.	MONITOR					7/24/2019			NO			
923207		A18019015DCA	LOVES TRAVEL SHOP & COUNTRY STORE, INC.	MONITOR					7/24/2019			NO			
923346		A18019025BAD	ARIZONA PUBLIC SERVICE	MONITOR	50			9/18/2019	9/9/2019			NO		X	
923582		A18019024BBB	ARIZONA PUBLIC SERVICE	MONITOR	77	75	3	11/22/2019	11/6/2019			NO		X	
923598		A18019014DDA	ARIZONA PUBLIC SERVICE	OTHER	62			11/19/2019	11/12/2019	9		NO	A	X	
923618		A18019024BBB	ARIZONA PUBLIC SERVICE	MONITOR	53		3	11/19/2019	11/18/2019			NO		X	
923825		A17020010CCB	CLARK L COLE	EXEMPT	170	170	6	1/22/2020	1/21/2020			NO		X	

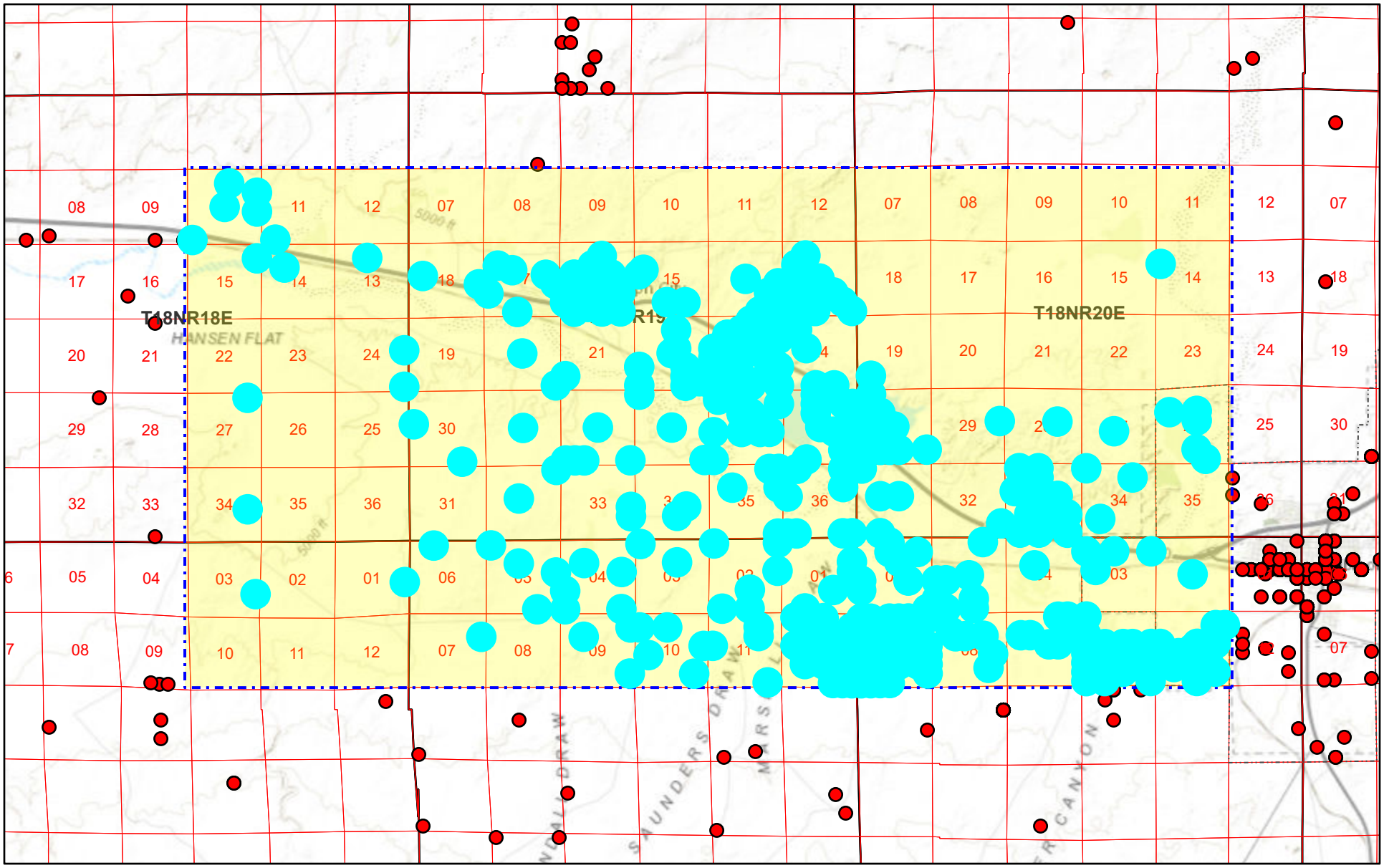
ADWR Well Registry Review Q2 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
923973		A18019020000	ARIZONA PUBLIC SERVICE	OTHER	40			3/3/2020	3/2/2020			NO	A	X	
924142		A18018010000	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY	OTHER					4/6/2020			NO			
925215		A18020030CBD	ARIZONA PUBLIC SERVICES	OTHER	55	52	6	12/12/2020	12/2/2020			NO		X	
925216		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	30	24	6	12/10/2020	12/2/2020			NO		X	
925217		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	55	55	6	12/10/2020	12/2/2020			NO		X	
925218		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	55	53	6	12/11/2020	12/2/2020			NO		X	
925219		A18020030000	ARIZONA PUBLIC SERVICE	OTHER					12/2/2020			NO			
925220		A18019025000	ARIZONA PUBLIC SERVICE	OTHER					12/2/2020			NO			
925226		A18019023CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	71	70	4	12/11/2020	12/4/2020	40		NO		X	
925227		A18019023CDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	71	70	4	12/9/2020	12/4/2020	40		NO		X	
925727		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC.	MONITOR	36	36	2	3/15/2021	3/11/2021	11		NO		X	ADWR records sent to APS in 2021 Q3
925728		A18019015DCA	LOVES TRAVELS STOPS & COUNTRY STORES, INC	MONITOR	36	36	2	3/16/2021	3/11/2021			NO		X	ADWR records sent to APS in 2021 Q3
925729		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR	36	36	2	3/16/2021	3/11/2021			NO		X	ADWR records sent to APS in 2021 Q3
925730		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR	35	36	2		3/11/2021	6		NO		X	ADWR records sent to APS in 2021 Q3
926097		A18019023AAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	55	55	6	5/5/2021	4/22/2021	2		NO		X	
926099		A18019023AAA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	130	130	6	5/13/2021	4/22/2021	4		NO		X	
926100		A18019023AAA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	84	81	6	5/3/2021	4/22/2021	19		NO		X	
926101		A18019013CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					4/22/2021			NO			
926102		A18019013CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	29	25	6	5/16/2021	4/22/2021	10		NO		X	
926103		A18019023ADC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	52	26	4	5/1/2021	4/22/2021			NO		X	
926104		A18019023CAC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	64	64	4	5/1/2021	4/22/2021	35		NO		X	
926105		A18019023DAC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	107	97	4	5/5/2021	4/22/2021	29		NO		X	
926106		A18019023DAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	177	165	4	5/18/2021	4/22/2021	27		NO		X	
926108		A18019022DBD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	67	48	4	4/29/2021	4/22/2021	37		NO		X	
926109		A18020030BDB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	88	88	2	5/14/2021	4/22/2021	21		NO		X	
926110		A18020030BDB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	50	47	2	5/15/2021	4/22/2021	20		NO		X	
926111		A18020030CBD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	52	50	2	5/15/2021	4/22/2021	19		NO		X	
926115		A18020030CBD	ARIZONA PUBLIC SERVICE COMPANY	OTHER	54	54	6	5/16/2021	4/22/2021	22		NO		X	
926116		A18020030CBD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	19	18	4	5/13/2021	4/22/2021	1		NO		X	
926120		A18020030CCB	ARIZONA PUBLIC SERVICE	MONITOR	27	19	4	5/3/2021	4/23/2021	4		NO		X	
926240		A18019013CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	51	47	6	5/15/2021	5/14/2021	10		NO		X	
926398		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC. (ATTN: MICHAEL KEY)	MONITOR	35	36	2	6/15/2021	6/9/2021	24		NO		X	ADWR records sent to APS in 2021 Q3
926399		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: MICHAEL KEY)	MONITOR	35	36	2	6/15/2021	6/9/2021	24		NO		X	ADWR records sent to APS in 2021 Q3
926812		A18019024BBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	31	30	6	9/28/2021	9/5/2021	12		NO		X	
926813		A18019024BBA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	26	26	6	9/29/2021	9/5/2021	18		NO		X	
926814		A18019024BBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	125	69	3	9/30/2021	9/5/2021	62		NO		X	
926815		A18019024BBA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	125	66	3	9/29/2021	9/5/2021	19		NO		X	
926816		A18019024BDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	65	65	4	10/5/2021	9/5/2021	23		NO		X	
927409		A18019025AAD	ARIZONA PUBLIC SERVICE	OTHER					12/10/2021			NO			
927464		A18019015DCA	LOVES TRAVEL STOPS & SOUNTRY STORE, INC	MONITOR				12/10/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927465		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/13/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927466		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/7/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927467		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/8/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927468		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/14/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927469		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/9/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
928235		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC (CHRIS WELDON	MONITOR	15	15	2	6/8/2022	6/1/2022	9		NO		X	ADWR Records sent to APS in 2022 Q4
928236		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC (CHRIS WELDON)	MONITOR	15	15	2	6/8/2022	6/1/2022	9		NO		X	ADWR Records sent to APS in 2022 Q4
928237		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR	35	35	2	6/8/2022	6/1/2022	20		NO		X	ADWR Records sent to APS in 2022 Q4
929456		A18019026000	ARIZONA PUBLIC SERVICE (ATTN: RICHARD JACK) CHOLLA	OTHER	50			3/9/2023	3/8/2023	35		NO	A	X	Well Abandonment Completion Report filed on March 31st, 2023
929461		A18019023000	ARIZONA PUBLIC SERVICE (ATTN: RICHARD JACK) CHOLLA	OTHER					3/9/2023			NO			Drilling card has been filed and expires on 3/9/2024.
929527		A18019029000	AZTEC LAND & CATTLE COMPANY	OTHER	50	50	8	2/28/2023	3/28/2023			NO	A	X	Logs state these are all geotechnical borings that were abandoned after drilling
929528		A18019028000	AZTEC LAND & CATTLE COMPANY	OTHER	50	50	8	3/2/2023	3/28/2023			NO	A	X	Logs state these are all geotechnical borings that were abandoned after drilling
929529		A18019027000	AZTEC LAND & CATTLE COMPANY	OTHER				3/2/2023	3/28/2023			NO		X	Logs state these are all geotechnical borings that were abandoned after drilling
929530		A18019022000	AZTEC LAND & CATTLE COMPANY	OTHER	50	50	8		3/28/2023	26		NO	A	X	Logs state these are all geotechnical borings that were abandoned after drilling
929675		A17020007BAA	GREG LONG	EXEMPT					5/3/2023			NO			Drilling card has been filed and expires on 5/3/2024.
929922		A18019016BDA	THRIFTWAY MARKETING CORPORATION	OTHER	27				7/10/2023			NO	A		Well Abandonment Completion Report received/entered in ADWR database in Q2 2024.
930125		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN CHRIS WELDON)	MONITOR	15	14	2	9/6/2023	8/24/2023	13		NO		X	Well Driller Report and Well Log revieced/entered in ADWR database in Q2 2024.
930126		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: CHRIS WELDON)	MONITOR	15	14	2	9/6/2023	8/24/2023			NO		X	Well Driller Report and Well Log revieced/entered in ADWR database in Q2 2024.
930127		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: CHRIS WELDON)	MONITOR	15	14	2	9/6/2023	8/24/2023	11		NO		X	Well Driller Report and Well Log revieced/entered in ADWR database in Q2 2024.
930402		A18020030CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	55	48	1	10/25/2023	10/25/2023			NO		X	Well Driller Report and Well Log Received/Entered on January 8, 2024. Well drill report uploaded to the ADWR database in Q2 2024.
930403		A18020030CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	32	35	4	10/26/2023	10/25/2023			NO		X	Well Driller Report and Well Log Received/Entered on January 8, 2024. Well drill report uploaded to the ADWR database in Q2 2024.

ADWR Well Registry Review Q2 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
930404		A18020030CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					10/25/2023			NO		X	Well Driller Report states that well was not drilled. Well Driller Report and Well Log Received/Entered on January 8, 2024. Well drill report uploaded to the ADWR database in Q2 2024.
930553		A18019013000	ARIZONA PUBLIC SERVICE COMPANY	OTHER					12/14/2023			NO			NOI received on 12/14/2023. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Well completion report has not been filed with ADWR by the time the Q2 2024 review was completed. Authorization expires 12/14/2024.
930554		A18019014000	ARIZONA PUBLIC SERVICE COMPANY	OTHER					12/14/2023			NO			NOI received on 12/14/2023. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Well completion report has not been filed with ADWR by the time the Q2 2024 review was completed. Authorization expires 12/14/2024.
930555		A18019013CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					12/14/2023			NO			Drilling card issued for an environmental monitoring well. Well completion report has not been filed with ADWR by the time the Q2 2024 review was completed. Authorization expires 12/14/2024.

ADWR_Registry Review_04012024_2



April 1, 2024

Well_Registry
Section
County
City Boundaries
Township

1:144,448

0 1 2 4 mi
0 1.5 3 6 km

Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Arizona Department of Water Resources

ADWR Well Registry Review Q3 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton D	Water Level (ft)	Pump Capacity (GPM	Pump Data Available	Completion Report	Log Received	WSP Notes
085087		A17020010BCD	TURLEY, BRENT,	EXEMPT	85	30	7	10/1/1980	7/11/1980	18	300	NO			
085104		A17019012ADA	JOHNSON,M D	EXEMPT	200	68	6	11/3/1980	9/24/1997	40	30	NO	X	X	
085257		A17020007DAB	MEIKLE & RUSSELL,	EXEMPT	175	58	6	1/1/1980	9/24/1997	80	0	NO			
085748		A18019022ACC	RANDALL,D S	EXEMPT	365	365	8	8/29/1980	9/24/1980	74	0	NO			
085794		A18020033BAD	ERKKILA,W O	EXEMPT	200	140	6	1/1/1980	9/24/1997	100	0	NO			
086109		A18019023000	ARIZONA PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086110		A18019023000	AZ PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086111		A18019023000	AZ PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086112		A18019023000	AZ PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/29/1980	0	0	NO			
086141		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	88	88	14	1/1/1980	9/24/1997	25	0	NO	A		
086142		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	87	87	14	1/1/1980	9/24/1997	25	0	NO	A		
086143		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	90	90	14	1/1/1980	9/24/1997	25	0	NO	A		
086144		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	83	83	14	1/1/1980	9/24/1997	25	0	NO	A		
086145		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	80	80	14	1/1/1980	9/24/1997	25	0	NO	A		
086146		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	86	86	14	1/1/1980	9/24/1997	25	0	NO	A		
086147		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	85	85	14	1/1/1980	9/24/1997	25	0	NO	A		
086148		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	83	83	14	1/1/1980	9/24/1997	25	0	NO	A		
086149		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	90	90	14	1/1/1980	9/24/1997	25	0	NO	A		
086150		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	87	87	14	1/1/1980	9/24/1997	25	0	NO	A		
086151		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	63	63	14	1/1/1980	9/24/1997	25	0	NO	A		
086152		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	42	42	14	1/1/1980	9/24/1997	0	0	NO	A		
086153		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	45	45	14	1/1/1980	9/24/1997	45	0	NO	A		
086184		A18020033CAC	EGBERT,A	NON-EXEMPT	165	75	6	1/1/1980	9/24/1997	65	0	NO			
087057		A17020007BCA	SARAH V. HANCOCK	EXEMPT	175	60	6	6/27/1981	8/1/1981	85	0	NO	X	X	
204270		A18020034BBB	RANDY MURPH	NON-EXEMPT	240	100	8	3/13/2005	7/8/2004	41		NO		X	
205717		A18019022DDB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					10/29/2004			NO			
205718		A18019022DCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					10/29/2004			NO			
205719		A18019023CCA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	47	45	4	3/9/2005	10/29/2004	34		NO		X	
205720		A18019023CCA	ARIZONA PUBLIC SERVICE CO	MONITOR	47	45	2	3/9/2005	10/29/2004	35		NO	A	X	
207696		A17020007AAA	JACK R PICKETT JR	EXEMPT	175	60	6	5/29/2005	5/4/2005	67	16	NO	X	X	
207948		A17020005CCC	MARIBEL LUNA	EXEMPT	160	54	6	7/18/2005	6/20/2005	46		NO		X	
211590		A18020033BDD	RAYMOND H TURLEY	EXEMPT	250	137	7	6/3/2006	3/24/2006	100		NO	X	X	
212756		A18020033CDA	WILLIAM WIEGAND	EXEMPT	160	93	5	7/19/2006	7/3/2006	70	13	NO	X	X	
214839		A18019023CBD	KLEINFELDER, INC	OTHER								NO			App date 3/7/2007, denied app for specialty well
215327		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	32	30	5	4/25/2007	3/30/2007	19		NO		X	
215328		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	32	30	5	4/24/2007	3/30/2007	19		NO		X	
215329		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	32	30	5	4/24/2007	3/30/2007	19		NO		X	
215330		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	30	29	5	4/24/2007	3/30/2007	19		NO		X	
215331		A18018010DAA	JACKRABBIT TRADING POST	MONITOR	30	28	5	4/25/2007	3/30/2007	19		NO		X	
215540		A18019023CCA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR				6/12/2009	4/26/2007			NO		X	
215541		A18019023CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	50	50	5	6/13/2007	4/26/2007	38		NO		X	
217762		A18019016CCA	DELWIN OR EVELYN SOLOMON	NON-EXEMPT	400	400	8	9/18/2008	5/8/2008	45	400	NO	X	X	
220206		A18019023CDB	ARIZONA PUBLIC SERVICE	OTHER					10/15/2010			NO			
220297		A17020010DAA	CITY OF HOLBROOK	NON-EXEMPT	200	41	16	5/13/2011	12/30/2010	20	1400	NO	X	X	
220453		A18019023C00	ARIZONA PUBLIC SERVICE COMPANY	OTHER	0	0	0	11/9/2011	3/22/2011	42		NO		X	
220454		A18019022DD0	ARIZONA PUBLIC SERVICE COMPANY	OTHER	0	0	0	11/10/2011	3/21/2011	40		NO		X	
221778		A18019023CDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	62	60	4	11/6/2012	10/12/2012	42		NO		X	
221779		A18019023CDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	62	60	4	11/6/2012	10/12/2012	42		NO		X	
221780		A18019023CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	62	60	4	11/7/2012	10/15/2012	42		NO		X	
226669		A18018010CCC	ANTONIO & CYNTHIA JAQUEZ	MONITOR					12/7/2016			NO			
231033		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		

ADWR Well Registry Review Q3 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton D	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
231034		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
231035		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
231036		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR					8/26/2019			NO	A		
231037		A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - UST PROGRAM	MONITOR	30				8/26/2019			NO	A		
232663		A17019003BBB	EL PASO NATURAL GAS COMPANY, LLC., A KINDER MORGAN COMPANY	OTHER	20	490	12	9/2/2020	7/25/2020			NO	A	X	
233176		A18019016DCB	THRIFTWAY MARKETING CORPORATION	MONITOR								NO			App date 10/18/2020, marked as denied
233177		A18019016CDA	THRIFTWAY MARKETING CORPORATION	MONITOR								NO			App date 10/18/2020, marked as denied
233178		A18019016CAD	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233179		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020
233180		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233181		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, Denied 12/13/2020
233182		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233183		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233184		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020. Denied as of 12/23/2020
233185		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, Denied 12/13/2020
233186		A18019016CAD	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233187		A18019016ABC	THRIFTWAY MARKETING CORPORATION	OTHER								NO			App date 10/18/2020, marked as denied
233264		A17019012DAD	ARIZONA PUBLIC SERVICE COMPANY	EXEMPT	390	79	7	12/16/2020	10/30/2020	92		NO		X	
233265		A18019028CCD	ARIZONA PUBLIC SERVICE	EXEMPT	247	148	7	12/16/2020	10/30/2020	22		NO		X	
233713		A18019016DCB	THRIFTWAY MARKETING CORPORATION	MONITOR	28	28	2	2/22/2021	1/27/2021			NO		X	ADWR records sent to APS in 2021 Q4
233714		A18019016CDA	THRIFTWAY MARKETING CORPORATION	MONITOR	28	28	2	2/24/2021	1/27/2021			NO		X	ADWR records sent to APS in 2022 Q1 after expanded area of review
236622		A17020011AAC	ALEX W & JENNIE B HATCH	EXEMPT					3/28/2022			NO		X	Drill authority issued 4/13/22 - Updated Records were added to ADWR as of 7/06/22 Well Review. Sent to APS
238560		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	111	99	2	5/25/2023	3/30/2023	22		NO		X	
238561		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	65	64	4	5/23/2023	3/30/2023	18		NO		X	
238562		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	113	112	4	5/23/2023	3/30/2023	24		NO		X	
238563		A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	67	66	4	5/9/2023	3/30/2023	20		NO		X	
238564		A18020030CAB	ARIZONA PUBLIC SERVICE	MONITOR	113	110	2	5/19/2023	3/30/2023	27		NO		X	
238565		A18020030CAB	ARIZONA PUBLIC SERVICE	MONITOR	100	96	2	5/22/2023	3/30/2023	22		NO		X	
238566		A18020030CAB	ARIZONA PUBLIC SERVICE	OTHER	112			5/15/2023	3/30/2023			NO	A	X	
239280		A18019016DBC	THRIFTYWAY MARKETING CORPORTION	OTHER	27				7/11/2023			NO	A		
239455		A18019016DBC	THRIFTWAY MARKETING CORPORATION	OTHER					8/4/2023			NO			
482933		A18019028CCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	220	148	7	12/16/2020	7/23/2020	22		NO		X	
482992		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	51	46	1		4/29/2021			NO	A		
482994		A18020030BDB	ARIZONA PUBLIC SERVICE	MONITOR	76	76	1		4/29/2021			NO	A		
482995		A18020030BDB	ARIZONA PUBLIC SERVICE	MONITOR	56	55	1		4/29/2021			NO	A		
500636		A17020004BD0	SCHADE,J	NON-EXEMPT	250	70	8	1/1/1981	9/24/1997	20	0	NO	X	X	
500712		A17020007CBD	NEWMAN AND JESSICA JOHN	EXEMPT	215	80	5	9/18/1981	8/17/1981	0	0	NO	C	X	
500726		A17020007CBA	JOHN HARDY	EXEMPT	195	80	5	8/21/1981	8/18/1981	49	75	NO	X	X	
501812		A17020010BDC	SHUMWAY,D	EXEMPT	100	39	6	5/1/1982	1/19/1982	24	0	NO	C	X	
502100		A18019016DDC	BARRETT,W W	EXEMPT	280	245	5	9/22/1982	2/23/1982	35	35	NO	X	X	
502294		A17020007ABB	ROBERT L. AND SYLVIA A. VARIAN	EXEMPT	270	229	6	4/1/1982	3/16/1982	20	0	NO	X	X	
502410		A17020010CCC	FERGUSON,M E	NON-EXEMPT	0	0	0		3/19/1982	0	0	NO			
502455		A18019016DDC	RANDALL,D	NON-EXEMPT	0	0	0		3/25/1982	0	0	NO			
502730		A17020007BBC	GERALD F BRIGGS	EXEMPT	160	57	5	8/20/1982	4/30/1982	90	0	NO	C	X	
503829		A17020010CCB	FRED & GAIL JOE	EXEMPT	200	200	0		8/26/1982	60	0	NO	X	X	
503847		A17020007CCC	EDWIN & BRENDA BURROUGHS	EXEMPT	200	79	8	5/8/1983	8/30/1982	37	0	YES	C	X	
503848		A17020007BBB	EDWIN & BRENDA BURROUGHS	EXEMPT	200	79	8	4/22/1983	8/30/1982	51	0	YES	C	X	
503984		A18020033DAC	SCHADE,J	EXEMPT	200	201	6	10/14/1982	9/21/1982	90	0	NO	X	X	
504944		A17019012DCA	JANKA,D	EXEMPT	200	70	7	6/20/1983	3/9/1983	57	0	NO	C	X	
505119		A18019016DDC	RANDALL, A BLAINE,	NON-EXEMPT	450	280	12	8/15/1983	4/5/1983	40	800	NO	X	X	
505356		A17020007BDD	MYERS, JOHN JR,W	NON-EXEMPT	0	0	0		5/10/1983	0	0	NO			
505455		A17019012ADC	ALLEN,C G	EXEMPT	200	69	6	6/1/1983	5/23/1983	70	24	NO	X	X	
505634	345312110122501	A17020010ACC	HOLBROOK, TOWN OF,	NON-EXEMPT	105	87	12	7/1/1983	6/14/1983	13	1450	YES	X	X	
506364		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	108	104	5	10/7/1983	9/21/1983	22	0	NO	N	X	
506365		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	54	54	5	10/11/1983	9/21/1983	20	0	NO	N	X	
506366		A18019024BBD	ARIZONA PUBLIC SERVICE	EXEMPT	118	65	5	10/21/1983	9/21/1983	26	0	NO	A	X	

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton D	Water Level (ft)	Pump Capacity (GPM	Pump Data Available	Completion Report	Log Received	WSP Notes
506367		A18019013DBD	AZ PUBLIC SERVICE,	EXEMPT	93	84	5	10/14/1983	9/21/1983	45	0	NO	N	X	
506368		A18019013CDD	AZ PUBLIC SERVICE,	EXEMPT	93	75	5	10/19/1983	9/21/1983	32	0	NO	N	X	
506369		A18019023AAC	AZ PUBLIC SERVICE,	EXEMPT	39	0	0	10/26/1983	9/21/1983	0	0	NO	N	X	
506370		A18019023ADA	AZ PUBLIC SERVICE,	EXEMPT	159	58	5	10/26/1983	9/21/1983	29	0	NO	N	X	
506371		A18019023DAB	AZ PUBLIC SERVICE,	EXEMPT	54	47	5	11/1/1983	9/21/1983	37	0	NO	N	X	
506372		A18019023ACA	AZ PUBLIC SERVICE,	EXEMPT	94	65	5	10/4/1983	9/21/1983	32	0	NO	N	X	
506586		A18019023ABB	ARIZONA PUBLIC SERVICE COMPANY	OTHER	58	58	5	11/2/1983	11/1/1983	36	0	NO	N	X	
506587		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	40	35	5	11/4/1983	11/1/1983	3	0	NO	A	X	
507508		A17020007BDA	PENROD, JOHNNY,E	NON-EXEMPT	195	70	7	5/15/1984	3/20/1984	49	14	NO	X	X	
508359		A17020007AAA	JANSEN,H	EXEMPT	0	0	0		6/12/1984	0	0	NO			
509947		A17019012BAC	BELSHE,M T	EXEMPT	166	166	6	12/26/1984	12/20/1984	90	28	NO	X	X	
510154		A17020010CBB	BISSONNETTE & SMITH	EXEMPT	98	40	6	6/5/1985	1/28/1985	33	15	NO	X	X	
511029		A17020007CBA	TRACY OR JANELLA PERKINS	EXEMPT	195	80	5	10/1/1981	5/2/1985	60	35	NO	X	X	
511169		A18019023B00	HARCO CORP,	OTHER	205	205	10	5/23/1985	5/17/1985	0	0	NO	N	X	
511932		A17020007ACA	GROSS,K H	EXEMPT	0	0	0		7/30/1985	0	0	NO			
513840		A17020007DDA	THOMAS HENSON	NON-EXEMPT	170	50	6	5/2/1986	3/28/1986	90	27	NO	X	X	
514992		A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	250	80	8	8/25/1986	7/25/1986	130	245	YES	X	X	
515770		A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	200	80	0	11/7/1987	10/7/1986	54	3	NO	X	X	
516042		A17020007DAD	JANSEN, CORNELIS,	NON-EXEMPT	175	50	6	11/4/1986	11/14/1986	42	20	NO	X	X	
518211		A17020007BBB	TERMAIN, DEBORA,L	EXEMPT	200	40	6	3/17/1988	6/19/1987	39	0	NO	C	X	
518943		A18019015BC0	EL PASO NATURAL GAS,	OTHER	500	190	8	10/15/1987	9/2/1987	0	0	NO	N	X	
519638		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	12	10	1	12/2/1987	11/13/1987	0	0	NO	N	X	
519639		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	12	10	1	12/2/1987	11/13/1987	4	0	NO	N	X	
519640		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	12	10	1	12/2/1987	11/13/1987	4	0	NO	N	X	
519760		A17020007ABD	MEGGAN P MURPH	EXEMPT	150	32	6	7/10/1988	12/1/1987	35	20	NO	X	X	
520217		A17020007CDD	YAZZIE, ALFRED,	EXEMPT	180	60	6	2/10/1989	2/9/1988	60	0	NO	C	X	
521468		A17019012BBA	MAXWELL, MYRON,	EXEMPT	200	67	6	5/12/1989	6/14/1988	75	12	NO	X	X	
524566		A18019023000	AZ PUBLIC SERVICE,	OTHER	185	40	6	6/8/1989	5/17/1989	0	0	NO	N	X	
527034		A17020007ABA	CHRISTOPHER & SHERRA DUNSMORE	EXEMPT	150	30	6	4/30/1990	2/2/1990	45	0	NO	C	X	
527039		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527040		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527041		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527042		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527043		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527044		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527045		A17019012DDD	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527046		A17019012DDC	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527047		A17019012DDC	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527048		A17019012DDC	MYERS, JOHN JR,W	EXEMPT	0	0	0		1/31/1990	0	0	NO			
527278		A18020026DCD	HOLBROOK, TOWN OF,	NON-EXEMPT	0	0	0		3/2/1990	0	0	NO	N		
527279		A18020026BCA	HOLBROOK, TOWN OF,	NON-EXEMPT	0	0	0		3/2/1990	0	0	NO	N		
527280		A18020026ACC	HOLBROOK, TOWN OF,	NON-EXEMPT	78	78	7	3/10/1990	3/2/1990	17	0	NO	N	X	
527281		A18020026ACB	HOLBROOK, TOWN OF,	NON-EXEMPT	300	300	6	3/4/1990	3/2/1990	229	0	NO	N	X	
527282		A18020026DCB	HOLBROOK, TOWN OF,	NON-EXEMPT	42	42	6	3/8/1990	3/2/1990	0	0	NO	N	X	
528697		A18020034ABD	JENNINGS, MOLLIE,	NON-EXEMPT	460	395	0	7/10/1990	7/9/1990	254	300	NO	X	X	
529604		A18019016DCB	RADIAN CORP,	MONITOR	18	10	2	5/28/1991	5/20/1991	13	0	NO	N	X	
529605		A18019016DCB	RADIAN CORP,	MONITOR	15	10	2	5/29/1991	5/20/1991	13	0	NO	N	X	
529606		A18019016DCC	RADIAN CORP,	MONITOR	25	20	2	5/28/1991	5/20/1991	13	0	NO	N	X	
529607		A18019016DCA	RADIAN CORP,	MONITOR	15	10	2	5/28/1991	5/20/1991	13	0	NO	N	X	
531124		A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	275	20	14	5/28/1991	3/7/1991	12	750	NO	X	X	
533811		A18019013CCA	AZ PUBLIC SERVICE,	MONITOR	259	258	5	1/22/1992	11/26/1991	114	0	NO	N	X	
533812		A18019013CCA	AZ PUBLIC SERVICE,	MONITOR	293	292	5	1/12/1992	11/26/1991	83	0	NO	N	X	
533813		A18019023AAA	AZ PUBLIC SERVICE,	MONITOR	280	279	5	12/16/1991	11/26/1991	80	0	NO	N	X	
533814		A18019013CCA	AZ PUBLIC SERVICE,	MONITOR	62	62	5	1/27/1992	11/26/1991	4	0	NO	N	X	
533815		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/26/1991	0	0	NO	N		
533816		A18019023AAA	AZ PUBLIC SERVICE,	MONITOR	240	238	5	12/19/1991	11/26/1991	80	0	NO	N	X	
533817		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	141	140	5	2/15/1992	11/26/1991	30	0	NO	N	X	
533818		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/26/1991	0	0	NO	N		

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533819		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/26/1991	0	0	NO	N		
533820		A18020030CAA	AZ PUBLIC SERVICE,	MONITOR	96	20	5	2/15/1992	11/26/1991	30	0	NO	N	X	
534511		A17020011BCC	JEFFERS, MARIA,	NON-EXEMPT	0	0	0		2/20/1992	0	0	NO			
535278		A18020029ADD	BRIMHALL SAND & ROCK,	NON-EXEMPT	420	420	10	6/3/1992	5/12/1992	251	0	NO	C	X	
536055		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	40	18	4	7/23/1992	7/16/1992	33	0	NO	N	X	
536056		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	21	0	0	7/20/1992	7/16/1992	20	0	NO	N	X	
536057		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	51	0	0	7/21/1992	7/16/1992	50	0	NO	N	X	
536058		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	30	0	0	7/22/1992	7/16/1992	30	0	NO	N	X	
536059		A18020030CBA	AZ PUBLIC SERVICE,	MONITOR	40	0	0	7/28/1992	7/16/1992	33	0	NO	N	X	
537495		A18020031CDC	WESTOVER, BOYD,L	EXEMPT	125	125	0	2/2/1993	12/1/1992	6	0	NO	C	X	
538790		A17020007CDC	MYERS, JOHN JR,W	NON-EXEMPT	200	200	5	4/22/1993	4/15/1993	0	40	NO	X	X	
539095		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	5/27/1993	5/12/1993	5	0	NO	C	X	
539096		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	5/28/1993	5/12/1993	5	0	NO	C	X	
539097		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	7/8/1993	5/12/1993	5	0	NO	C	X	
539098		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	7/8/1993	5/12/1993	5	0	NO	C	X	
539099		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	20	5	7/9/1993	5/12/1993	5	0	NO	C	X	
539100		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	20	0	0	7/7/1993	5/12/1993	5	0	NO	C	X	
539101		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	12	0	0	7/7/1993	5/12/1993	1	0	NO	C	X	
539102		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	21	0	0	7/7/1993	5/12/1993	5	0	NO	C	X	
539103		A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	6/1/1993	5/12/1993	1	0	NO	A	X	
539104		A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	6/2/1993	5/12/1993	1	0	NO	A	X	
539105		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539106		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539107		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539108		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539109		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539110		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539111		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539112		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539113		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539114		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539115		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539116		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539117		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539118		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		5/12/1993	0	0	NO			
539119		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	20	10	2	5/19/1993	5/12/1993	1	0	NO	N	X	
539120		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	20	10	2	5/19/1993	5/12/1993	1	0	NO	N	X	
539121		A18019013CCD	AZ PUBLIC SERVICE,	MONITOR	20	10	2	5/19/1993	5/12/1993	1	0	NO	N	X	
539225		A17020007DAA	GARY AND MELISSA HUNT	EXEMPT	174	54	5	6/18/1993	5/18/1993	74	30	NO	X	X	
539859		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		7/12/1993	0	0	NO			
539860		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/21/1993	7/12/1993	25	0	NO		X	
539861		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/23/1993	7/12/1993	25	0	NO		X	
539862		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/22/1993	7/12/1993	25	0	NO		X	
539863		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	35	35	5	7/25/1993	7/12/1993	25	0	NO		X	
539864		A18019013CCD	AZ PUBLIC SERVICE,	EXEMPT	40	40	5	7/24/1993	7/12/1993	25	0	NO		X	
539986		A18020031BBB	HUNT, BOYCE,B	EXEMPT	130	30	61	9/7/1993	7/16/1993	105	0	NO	C	X	
540040		A18019016DCC	RADIAN CORP,	MONITOR	20	20	4	9/15/1993	8/17/1993	14	0	NO	N	X	
540041		A18019016DCC	RADIAN CORP,	MONITOR	20	20	4	9/16/1993	8/17/1993	15	0	NO	N	X	
540042		A18019016DCA	RADIAN CORP,	MONITOR	20	20	4	9/16/1993	8/17/1993	13	0	NO	N	X	
540668		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	45	45	4	9/23/1993	9/15/1993	23	0	NO	N	X	
540669		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	0	0	0		9/15/1993	0	0	NO	N		
540670		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	0	0	0		9/15/1993	0	0	NO	N		
540671		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	0	0	0		9/15/1993	0	0	NO	N		
540672		A18019022DBD	ARIZONA PUBLIC SERVICE	MONITOR	45	45	4	9/24/1993	9/15/1993	18	0	NO	A	X	
541134	345512110151701	A18020031ACC	KEMPTON, CARL,	EXEMPT	160	100	6	11/8/1993	10/20/1993	115	0	NO	C	X	
541684		A18019015BCC	EL PASO NATURAL GAS,	OTHER	500	180	8	12/17/1993	12/5/1993	0	0	NO	N	X	
541711	345531110124101	A18020027CAA	DALE MCKINNON	NON-EXEMPT	460	320	8	3/25/1994	12/6/1993	207	0	NO	C	X	
546245		A18019023CDA	APS,	OTHER	187	187	6	12/9/1994	10/28/1994	0	0	NO	N	X	
546582		A17020010CBB	KENNEVINA LEE	EXEMPT	250	250	6	12/28/1994	11/14/1994	57	0	NO	C	X	
547033		A18019023CDD	APS,	OTHER	25	0	0	1/9/1995	12/30/1994	25	0	NO	N	X	
547034		A18019023CDD	APS,	MONITOR	46	45	4	1/9/1995	12/30/1994	25	0	NO	N	X	
547035		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	46	45	4	1/10/1995	12/30/1994	25	0	NO	A	X	
547036		A18019023CDD	ARIZONA PUBLIC SERVICE CO	MONITOR	46	45	4	1/11/1995	12/30/1994	25	0	NO	A	X	
547037		A18019023CDD	APS,	MONITOR	0	0	0		12/30/1994	0	0	NO	N		

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547038		A18019023CDD	APS,	MONITOR	0	0	0		12/30/1994	0	0	NO	N		
547039		A18019023CDD	APS,	MONITOR	0	0	0		12/30/1994	0	0	NO	N		
547253		A18020030000	ARIZONA PUBLIC SERVICE COMPANY	OTHER	37	0	0	6/7/1995	6/2/1995	0	0	NO	N	X	
547254		A18019025000	ARIZONA PUBLIC SERVICE COMPANY	OTHER	50	0	0	6/14/1995	6/2/1995	0	0	NO	N	X	
548409		A17020007BAC	KEVIN DIPIAZZA	EXEMPT	145	54	6	7/18/1995	3/6/1995	60	18	NO	X	X	
552166		A18020033BBA	CLINTON HADDOX	EXEMPT	0	0	0		9/18/1995	0	0	NO			
552869		A17020005CBB	LOPEZ, ODELL,	EXEMPT	100	41	6	12/30/1995	10/16/1995	34	20	NO	X	X	
553267		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	49	49	5	12/21/1995	11/30/1995	2	25	NO	X	X	
553268		A18020030CCB	ARIZONA PUBLIC SERVICE	MONITOR	50	50	4		11/30/1995	0	0	NO	A		
553269		A18020030CCC	AZ PUBLIC SERVICE,	MONITOR	45	45	4	12/19/1995	11/30/1995	9	0	NO	N	X	
553270		A18019036AAB	AZ PUBLIC SERVICE,	MONITOR	0	0	0		11/30/1995	0	0	NO	N		
553271		A18019023CDD	AZ PUBLIC SERVICE,	MONITOR	45	20	4	12/18/1995	11/30/1995	29	0	NO	N	X	
558134		A17020010ADD	FISH BROS, LLC	NON-EXEMPT	200	42	12	10/29/1996	6/6/1996	5	0	NO	X	X	
558423		A17020010CCC	FERGUSON, MICHAEL,	NON-EXEMPT	205	20	6	11/3/1996	6/17/1996	57	0	NO	C	X	
560489		A18020030CCC	AZ PUBLIC SERVICE,	MONITOR	30	0	4	2/11/1997	11/26/1996	29	0	NO	N	X	
562218		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR	0	0	0		4/22/1997	0	0	NO	N		
562329		A18018010CCC	JAQUEZ JR, ANTONIO,	MONITOR	0	0	0		4/22/1997	0	0	NO	A		
562330		A18018010CCC	JAQUEZ JR, ANTONIO,	MONITOR	0	0	0		4/22/1997	0	0	NO	A		
562331		A18018010CCC	JAQUEZ JR, ANTONIO,	MONITOR	0	0	0		4/22/1997	0	0	NO	A		
562332		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR	25	5	2	4/16/1998	4/22/1997	15	0	NO	A	X	
562333		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR	25	5	4	4/17/1998	4/22/1997	15	0	NO	A	X	
566113		A17020005CBA	MARCELINO & ROSA PONCE	EXEMPT	125	52	8	7/24/1998	12/2/1997	41		NO		X	
566237		A18019018BCD	DELWIN OR EVELYN SOLOMON	EXEMPT	400	155	10	5/13/1998	12/4/1997	14		NO		X	
566723		A17020007CDB	ARTHUR OR MAJORI MAHER	EXEMPT	205	47	7	1/6/1999	1/27/1998	80		NO	X	X	
567466		A17020005CCB	FERNANDO AND ROBIN LEDEZMA	EXEMPT	130	431	6	11/4/1998	2/27/1998	50		NO		X	
568830		A17020010CBB	ALICE JOHNSON	EXEMPT	160	51	6	7/20/1998	6/3/1998	60		NO		X	
569370		A17019003BBB	EL PASO NATURAL GAS CO. LLC., A KINDER MORGAN COMPANY	OTHER	500	130	8	9/27/1998	6/19/1998			NO	A	X	
570836		A17019010CBA	LUCAS AND GRAVES DEVELOPMENT, INC	EXEMPT					9/14/1998			NO			
573258		A18018010ABC	THE CAROL A SHAFF REVOCABLE TRUST	EXEMPT	280	233	8	3/24/1999	2/8/1999	83		NO		X	
573582		A17020006BAA	BOYD L WESTOVER	EXEMPT					3/4/1999			NO			
577823		A17020007CDB	JOHN OR JOANN MYERS	EXEMPT					1/27/1998			NO			
578122		A17020007BAC	JOHNNY E PENROD	EXEMPT					11/5/1999			NO			
578284		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578285		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578286		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578287		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578288		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578289		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578290		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578291		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578292		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578293		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578294		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578295		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578296		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578297		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578298		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578299		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578300		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578301		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578302		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578303		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578304		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
578305		A18018010CCC	ANTONIO JAQUEZ JR	MONITOR					11/19/1999			NO			
579540		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR	40	30	2	3/23/2000	2/8/2000	42		NO		X	
579541		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR	60	50	2	3/28/2000	2/8/2000	27		NO		X	
579542		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	62	52	2	3/22/2000	2/8/2000			NO		X	
579543		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	85	75	2	3/27/2000	2/8/2000	25		NO		X	
579544		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	85	75	2	3/23/2000	2/8/2000	37		NO		X	
579545		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	104	90	2	3/20/2000	2/8/2000	90		NO		X	
579546		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR	83	73	2	3/21/2000	2/8/2000	46		NO		X	
580114		A17020007BCC	BRYANT PETERSEN	NON-EXEMPT	205	55	6	5/12/2000	3/20/2000	621	27	NO	X	X	
580185		A17020006BAA	BOYD L WESTOVER	EXEMPT	173	38	6	8/15/2000	3/16/2000	26		NO		X	
582885		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
582886		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			

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582887		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
582888		A18020030CBD	ARIZONA PUBLIC SERVICE	MONITOR					8/15/2000			NO			
583834		A17020007BAA	KENNETH H EDINGER	EXEMPT	160	60	6	12/18/2000	10/11/2000	49		NO	X	X	
585020		A17020007CCD	JOHN OR JOANN MYERS	EXEMPT	208	60	5	4/10/2001	1/2/2001	78		NO	X	X	
588000		A18019016CAC	HARTLEY TURLEY	OTHER					7/19/2001			NO			
588012		A18019016CAC	HARTLEY TURLEY	MONITOR	45	45	4	3/8/2002	7/19/2001	26		NO		X	
588013		A18019016CAC	HARTLEY TURLEY	MONITOR	40	40	4	3/6/2002	7/19/2001	9		NO	A	X	
588014		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO	A		
588015		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO	A		
588016		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO	A		
588017		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588018		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588019		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588020		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
588021		A18019016CAC	HARTLEY TURLEY	MONITOR					7/19/2001			NO			
590313		A17020010CBB	ANTHONY AND CARLA JEWETT	EXEMPT	200	60		6/7/2002	12/24/2001	74		NO		X	
590553		A17020007CBB	DUANE RAY CHARLEY	EXEMPT	220	55	5	2/28/2002	1/14/2002	81		NO	X	X	
590554		A17020007CBC	ROBERT MCLAWS	EXEMPT	215	50	5	3/8/2002	1/14/2002	86		NO	X	X	
592674		A17020007BAA	BOBBIE C WRIGHT	EXEMPT	205	45	6	8/9/2002	5/20/2002	57		NO		X	
592774		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	30				5/28/2002			NO	A		
592775		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
592776		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
592777		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
592778		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				5/28/2002			NO	A		
593169		A18019034DBC	MILTON H DESPAIN	EXEMPT	115	50	6	9/7/2002	6/20/2002	43		NO		X	
593851		A18019016CAC	HARTLEY TURLEY	MONITOR					7/30/2002			NO	A		
594035		A18018010CCC	JACKRABBIT TRADING POST	MONITOR					8/9/2002			NO			
594036		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				8/9/2002			NO	A		
594037		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				8/9/2002			NO	A		
594038		A18018010CCC	JACKRABBIT TRADING POST	MONITOR					8/9/2002			NO			
594039		A18018010CCC	JACKRABBIT TRADING POST	MONITOR	25				8/9/2002			NO	A		
594796		A18019023CDD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					9/27/2002			NO			
594797		A18019023CDD	ARIZONA PUBLIC SERVICE COMPANY	OTHER					9/27/2002			NO			
595839		A18019016CAC	HARTLEY TURLEY	MONITOR	15	11			11/18/2002	20		NO	A	X	
595846		A18019016CAC	HARTLEY TURLEY	MONITOR	15	14	1		11/18/2002	20		NO	A	X	
595849		A18019016CAC	HARTLEY TURLEY	MONITOR	10	10	4		11/18/2002	20		NO	A	X	
599261		A18019017CDD	JOSEPH CITY SANITARY DISTRICT	MONITOR	30	30	6	8/5/2003	7/1/2003	6		NO		X	
600208	345302110123801	A17020010CAC	SHUMWAY, DREW,	NON-EXEMPT	200	20	12	1/1/1940	10/7/1981	30	600	NO	N	N	
600239	345424110125101	A17020003BAD	SHUMWAY, DREW,	NON-EXEMPT	500	65	12	1/1/1960	10/7/1981	31	400	NO	N	N	
600240		A17020011CAC	SHUMWAY, DREW,	NON-EXEMPT	400	60	12	1/1/1960	10/7/1981	30	500	NO	N	N	
600241		A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	200	10	8	1/1/1950	10/7/1981	3	150	NO	N	N	
600242		A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	1/1/1950	10/7/1981	3	200	NO	N	N	
600243		A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	1/1/1950	10/7/1981	3	200	NO	N	N	
600245		A17020005CCD	SHUMWAY, DREW,	NON-EXEMPT	225	10	10	1/1/1940	10/7/1981	10	300	YES	N	N	
600246	345342110141201	A17020005DCC	SHUMWAY, DREW,	NON-EXEMPT	225	20	10	1/1/1955	10/7/1981	0	150	NO	N	N	
600247	345342110141301	A17020005DCB	SHUMWAY, DREW,	NON-EXEMPT	225	20	10	1/1/1955	10/7/1981	3	150	NO	N	N	
600248	345420110124301	A17020003BBC	FUELCO TRAVEL CENTER,	NON-EXEMPT	495	60	10	3/15/1972	10/7/1981	27	300	NO	N	N	
600249		A17020010DBC	SHUMWAY, DREW,	NON-EXEMPT	210	20	8	1/1/1940	10/7/1981	50	100	NO	N	N	
600250	345247110110401	A17020011DDB	SHUMWAY, DREW,	NON-EXEMPT	410	65	12	1/20/1973	10/7/1981	40	300	NO	N	N	
600251		A17020005ABA	SHUMWAY, DREW,	NON-EXEMPT	350	20	8	2/21/1974	10/7/1981	100	300	YES	N	N	
600252		A17020010DDA	SHUMWAY, DREW,	NON-EXEMPT	225	42	12	2/27/1980	10/7/1981	75	300	NO	N	N	
600253		A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	200	10	12	10/18/1978	10/7/1981	20	400	NO	N	N	
600254		A17020003BCD	SHUMWAY, DREW,	NON-EXEMPT	200	20	8	1/1/1940	10/7/1981	3	100	NO	N	N	
600255	345314110121401	A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	1/1/1940	10/7/1981	3	100	NO	N	N	
600256	345303110120501	A17020010DAC	SHUMWAY, DREW,	EXEMPT	280	10	10	1/1/1940	10/7/1981	35	30	NO	N	N	

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600372		A17019012DAC	DAVID DESPAIN	NON-EXEMPT	300	71	6	2/14/1975	9/28/1981	50	100	YES	N	X	
600373		A17019012DBC	DAVID DESPAIN	NON-EXEMPT	250	70	8	4/3/1977	9/28/1981	80	100	NO	X	X	
600374		A17018001DAA	AZTEC LAND & CATTLE,	EXEMPT	180	60	6	5/15/1946	9/28/1981	160	5	NO	N	N	
600375	345445110192501	A18019033DAA	AZTEC LAND CO. LLC.	EXEMPT	100	40	6	6/10/1946	9/28/1981	20	12	NO	N	N	
600376		A18019017DAA	F B HANSEN	EXEMPT	450	120	8	1/1/1945	9/28/1981	90	20	NO	N	N	
600377	345324110123801	A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	75	5	12	1/1/1940	9/28/1981	18	500	NO	N	N	
600378	345324110123901	A17020010BDC	DAVID & DEBBIE SHUMWAY	NON-EXEMPT	75	5	12	1/1/1940	9/28/1981	18	100	NO	N	N	
600383	345345110245701	A17018003DAD	AZTEC LAND & CATTLE,	EXEMPT	130	20	6	1/1/1930	9/28/1981	100	7	NO	N	N	
600521		A17020007ABC	JANSEN,H W	NON-EXEMPT	250	12	12	8/1/1971	12/16/1981	50	150	NO	N	N	
600527		A18019016000	RANDALL, A BLAINE,	NON-EXEMPT	450	150	12	1/1/1958	12/16/1981	50	1200	NO	N	N	
601745		A17020010CDA	RICK G TAYLOR	EXEMPT	150	20	6	3/13/1978	9/18/1981	50	30	NO			
601814	345753110213501	A18019018DAA	PORTER,H D	NON-EXEMPT	322	250	8	1/1/1970	1/18/1982	20	10	NO			
601836		A17019012AAD	B & C United Energies	NON-EXEMPT	325	10	12	1/1/1962	1/19/1982	60	220	YES			
601837		A17019012ABB	ALONZO & SHARI MCLAWS	NON-EXEMPT	400	10	12	1/1/1948	1/19/1982	69	220	YES			
602175		A17020010DAB	SIMPER,A D	NON-EXEMPT	150	10	8	1/1/1950	2/4/1982	3	200	NO			
602176		A17020010DBD	COOPER & SHEALYNN REIDHEAD	NON-EXEMPT	130	48	8	1/1/1980	2/4/1982	21	200	NO			
602321		A18020033CDD	BLACK ROCK CONSTR,	NON-EXEMPT	225	45	8	7/20/1976	1/21/1982	40	400	NO			
602783		A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	100	100	6	5/10/1980	2/10/1982	46	100	NO			
602960		A17020010DAB	HEWARD,J E	EXEMPT	100	20	8	1/1/1940	2/17/1982	8	30	NO			
602961		A17020008ACA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	150	20	8	1/1/1940	2/17/1982	1	150	NO			
602962		A17020008ACA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	200	20	10	1/1/1940	2/17/1982	1	200	NO			
602963		A17020008DAB	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	225	35	10	1/1/1940	2/17/1982	28	400	YES			
602964		A17020008BDA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	150	20	6	1/1/1940	2/17/1982	1	100	NO			
602965	345320110144710	A17020008BDB	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	200	20	10	1/1/1940	2/17/1982	12	600	YES			
603167		A17020010CAB	MICHAEL & ERNESTINE KAFFER	NON-EXEMPT	150	20	8	1/1/1950	2/18/1982	30	350	NO			
603770		A18020033000	THOMPSON,C C	NON-EXEMPT	210	100	6	4/1/1964	9/14/1982	100	60	NO			
603796		A18019016CAA	CORNELIS E. & KRISTI J. JANSEN	NON-EXEMPT	450	0	0	1/1/1946	9/10/1981	0	75	YES			
603863	345314110112401	A17020011ACC	HEYWOOD,Y	NON-EXEMPT	300	0	12	8/1/1964	2/19/1982	50	450	NO			
603864	345314110112301	A17020011ACC	HEYWOOD,Y	NON-EXEMPT	200	0	4	1/1/1952	2/19/1982	50	40	NO			
603865		A17020011ACC	PACIFIC UNION CONFERENCE OF SEVENTH-DAY ADVENTISTS	EXEMPT	150	150	8	6/1/1974	2/19/1982	30	0	NO			
604008		A18020033000	DESPAIN,E R	NON-EXEMPT	235	100	6	8/1/1964	9/21/1981	100	150	NO			
604247		A17020011CBB	L GRANT BRINKERHOFF	NON-EXEMPT	0	0	6		2/26/1982	21	100	NO			
604273		A17020007DBC	ROY WHITE	NON-EXEMPT	175	121	8	7/1/1979	3/4/1982	82	100	YES			
604646		A18020033BC0	PARISH,J D	NON-EXEMPT	250	80	8	11/28/1973	3/12/1982	67	60	NO			
604689	345308110125301	A17020010CAA	D'AMICO, DONALD,R	NON-EXEMPT	150	150	12	1/1/1957	3/11/1982	15	1100	YES			
604690		A17020010CAA	HOLBROOK, CITY OF,	NON-EXEMPT	60	40	12	1/1/1935	3/11/1982	10	1000	YES			
604691	345310110122901	A17020010CAA	HOLBROOK, CITY OF,	NON-EXEMPT	50	30	12	1/1/1935	3/11/1982	10	450	NO			
604918		A17020007CCB	DARRELL A & CYNTHIA L STEEN	NON-EXEMPT	200	126	6	7/3/1979	3/8/1982	80	35	YES			
604926		A17020011000	BRIGHAM YOUNG UNIV.,	NON-EXEMPT	0	0	0	9/5/1961	3/10/1982	0	0	NO			
605139		A17019012ACA	B & C United Energies	NON-EXEMPT	408	13	10	1/1/1977	3/22/1982	74	300	YES			
605141		A17020010BCB	MC LAWS,W	NON-EXEMPT	100	221	5	1/1/1965	3/22/1982	12	100	NO			

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605469	345447110132801	A18020033CDA	WILLIAM WIEGAND	NON-EXEMPT	208	208	6	12/31/1946	4/7/1982	165	120	NO	A		
605470		A17020010BCB	MC LAWS,C L	NON-EXEMPT	100	0	8	7/1/1962	4/7/1982	8	0	NO			
605617		A18020034C00	JENNINGS,C L	NON-EXEMPT	300	150	8	3/1/1973	3/31/1982	120	45	NO			
605778		A17020005000	DEWITT,M	NON-EXEMPT	240	18	12	5/20/1974	3/31/1982	46	500	YES			
605779		A17020011000	DEWITT,H K	NON-EXEMPT	175	15	12	1/1/1970	3/31/1982	30	350	NO			
606476		A17020010CBB	JEFFERS,J C	NON-EXEMPT	0	0	0		4/30/1982	0	0	NO			
606477		A17020010CBB	JEFFERS,J C	NON-EXEMPT	150	0	0		4/30/1982	17	0	NO			
606478		A17020011CAB	JEFFERS,J C	NON-EXEMPT	200	0	0	1/1/1953	4/30/1982	0	300	NO			
606495		A17020007BBC	HILDEBRAND,R E	NON-EXEMPT	400	8	12	6/12/1973	4/26/1982	67	374	YES			
606498		A17020011C00	ADAIR,F R	NON-EXEMPT	125	20	6		4/26/1982	26	50	NO			
606720		A18020033BAC	DESPAIN,R E	NON-EXEMPT	350	129	11	1/1/1974	5/3/1982	90	100	NO			
606724		A17020008D00	J-S FARMS, INC.	EXEMPT	0	0	0		5/3/1982	0	35	NO			
606725		A17020008D00	J-S FARMS, INC.	EXEMPT	0	0	0		5/3/1982	0	35	NO			
606801	345833110244901	A18018010ADA	THE CAROL A SHAFF REVOCABLE TRUST	EXEMPT	50	50	6	1/1/1910	4/16/1982	30	20	NO			
607766		A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	460	10	12	1/1/1960	5/7/1982	92	525	NO			
607767		A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	250	10	7	12/1/1976	5/7/1982	94	100	NO			
607768		A17020007BDC	JOHN W. MYERS, JR.	NON-EXEMPT	150	51	6	11/1/1976	5/7/1982	47	100	NO			
607769		A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	180	8	8	1/1/1966	5/7/1982	81	100	NO			
608472	345637110191901	A18019022CBC	LARRY E. & AVA RACHELE BALDWIN	NON-EXEMPT	440	343	10	3/17/1967	5/10/1982	10	1000	NO			
609539		A18019016CD0	NEAL,T R	NON-EXEMPT	200	0	3	1/1/1936	5/25/1982	19	0	NO			
609540		A18019016CD0	NEAL,T R	NON-EXEMPT	200	0	8	1/1/1934	5/25/1982	19	500	NO			
609578		A17020007BDC	PENROD, JOHNNY,E	NON-EXEMPT	400	10	12	1/1/1970	5/14/1982	90	700	YES			
609959		A18020033D00	SCHADE,G L	NON-EXEMPT	150	130	6	1/1/1940	5/24/1982	0	0	NO			
610650		A17020007DAD	JEAN GEORGE	NON-EXEMPT	250	9	9	3/10/1974	5/23/1982	49	75	YES			
613088		A18019026ACB	AZ PUBLIC SERVICE,	NON-EXEMPT	595	695	30	1/1/1961	6/10/1982	0	1200	YES			
613089	345434110171201	A18019036CCC	AZ PUBLIC SERVICE,	NON-EXEMPT	350	55	10	12/1/1961	6/10/1982	27	950	YES	X		
613090	345434110170501	A18019036CCD	AZ PUBLIC SERVICE,	NON-EXEMPT	350	60	24	3/8/1962	6/10/1982	37	2000	YES			
613091	345345110175201	A17019002DBC	AZ PUBLIC SERVICE,	NON-EXEMPT	487	320	16	8/1/1967	6/10/1982	55	750	YES			
613092	345251110182601	A17019010DDB	AZ PUBLIC SERVICE,	NON-EXEMPT	550	38	24	2/1/1977	6/10/1982	100	450	YES			
613093	345526110200601	A18019028CDC	AZ PUBLIC SERVICE,	NON-EXEMPT	245	58	12	10/27/1978	6/10/1982	14	800	YES	X		
613094	345340110193001	A17019004DDC	AZ PUBLIC SERVICE,	NON-EXEMPT	550	61	24	3/5/1978	6/10/1982	87	1000	YES			
613095	345415110200801	A17019004BDB	AZ PUBLIC SERVICE,	NON-EXEMPT	430	85	24	7/1/1978	6/10/1982	30	900	YES	X		
613096		A17019012BCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	458	79	7	12/16/2020	6/10/1982	103	900	NO		X	
613097	345316110170910	A17019012CAC	ARIZONA PUBLIC SERVICE	NON-EXEMPT	576	78	11	12/16/2020	6/10/1982	97	600	NO		X	
613098		A18019020DDD	AZ PUBLIC SERVICE,	NON-EXEMPT	0	0	8		6/10/1982	0	0	NO			
613099		A17020006DDD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	127	25	5	12/16/2020	6/10/1982	58	0	NO		X	
613125		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	45	0	2		6/10/1982	24	0	NO			
613126		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	6	0	2		6/10/1982	2	0	NO			
613127		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	8	0	0		6/10/1982	0	0	NO			
613128		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	10	0	0		6/10/1982	1	0	NO			
613129		A18019026BAD	AZ PUBLIC SERVICE,	EXEMPT	12	0	0		6/10/1982	2	0	NO			
613130		A18019026BDA	AZ PUBLIC SERVICE,	EXEMPT	15	0	0		6/10/1982	15	0	NO			
613131		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	45	0	0		6/10/1982	20	0	NO			

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613132		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	8	0	0		6/10/1982	2	0	NO			
613133		A18019026BDA	AZ PUBLIC SERVICE,	EXEMPT	18	0	0		6/10/1982	17	0	NO			
613134		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	45	0	0		6/10/1982	17	0	NO			
613135		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	10	0	0		6/10/1982	8	0	NO			
613136		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	6	0	0		6/10/1982	1	0	NO			
613137		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	8	0	0		6/10/1982	1	0	NO			
613138		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	18	0	0		6/10/1982	0	0	NO			
613139		A18019026ACC	AZ PUBLIC SERVICE,	EXEMPT	14	0	0		6/10/1982	12	0	NO			
613140		A18019026ACD	AZ PUBLIC SERVICE,	EXEMPT	45	0	0		6/10/1982	18	0	NO			
613141		A18019026ACD	AZ PUBLIC SERVICE,	EXEMPT	18	0	0		6/10/1982	16	0	NO			
613142		A18019026ACD	AZ PUBLIC SERVICE,	EXEMPT	35	0	0		6/10/1982	13	0	NO			
613143		A18019021CCB	AZ PUBLIC SERVICE,	EXEMPT	1005	267	10	1/1/1977	6/10/1982	8	0	NO			
613144		A18019028DDD	AZ PUBLIC SERVICE,	EXEMPT	374	0	12		6/10/1982	13	0	NO			
613145		A18019026CBB	AZ PUBLIC SERVICE,	EXEMPT	570	0	0	1/1/1959	6/10/1982	30	0	NO			
613146	345339110202401	A17019004CCC	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		6/10/1982	0	0	NO			
613147		A18019028DDD	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		6/10/1982	0	0	NO			
613148		A18019026ACB	AZ PUBLIC SERVICE,	EXEMPT	595	595	0	1/1/1961	6/10/1982	0	0	NO			
613149	345613110180601	A18019026BBA	AZ PUBLIC SERVICE,	EXEMPT	570	185	12	1/1/1959	6/10/1982	0	0	NO			
613150		A18019035BDB	AZ PUBLIC SERVICE,	EXEMPT	57	50	6	8/23/1973	6/10/1982	45	0	NO			
613151		A18019026CAA	AZ PUBLIC SERVICE,	EXEMPT	57	53	6	8/28/1973	6/10/1982	40	0	NO			
613152		A18019025CDC	ARIZONA PUBLIC SERVICE CHOLLA POWER PLANT	EXEMPT	56	49	6	8/30/1973	6/10/1982	32	0	NO	A		
613153		A18019026DAB	AZ PUBLIC SERVICE,	EXEMPT	92	80	6	9/4/1973	6/10/1982	40	0	NO			
613154		A18019022DCA	AZ PUBLIC SERVICE,	EXEMPT	100	100	6	9/7/1973	6/10/1982	5	0	NO			
613155		A17019012BBA	AZ PUBLIC SERVICE,	EXEMPT	0	0	0		6/10/1982	0	0	NO	A		
613158	345751110231101	A18018013BAD	AZ PUBLIC SERVICE,	EXEMPT	1005	290	16	4/8/1978	6/10/1982	35	0	NO			
613159	345802110243601	A18018011CCD	AZ PUBLIC SERVICE,	EXEMPT				1/17/1978	6/10/1982		0	NO			
613163		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	77	50	1	10/31/1978	6/10/1982	77	0	NO			
613164		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	44	28	1	10/31/1978	6/10/1982	28	0	NO			
613165		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	177	88	1	11/1/1978	6/10/1982	62	0	NO			
613166		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	164	88	1	11/1/1978	6/10/1982	20	0	NO			
613167		A18019023AAB	AZ PUBLIC SERVICE,	EXEMPT	137	88	1	11/1/1978	6/10/1982	54	0	NO			
613168		A18019023AAB	AZ PUBLIC SERVICE,	EXEMPT	50	33	2	10/31/1978	6/10/1982	1	0	NO			
613169		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	154	114	1		6/10/1982	29	0	NO			
613170		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	102	87	1		6/10/1982	27	0	NO			
613171		A18019023AAA	AZ PUBLIC SERVICE,	EXEMPT	292	277	2		6/10/1982	74	0	NO			
613172		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	50	18	1	3/21/1979	6/10/1982	9	0	NO			
613173		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	3/22/1979	6/10/1982	19	0	NO			
613174		A18019014DAA	AZ PUBLIC SERVICE,	EXEMPT	80	48	1	3/20/1979	6/10/1982	52	0	NO			
613175		A18019014DDB	AZ PUBLIC SERVICE,	EXEMPT	81	41	1	3/12/1979	6/10/1982	30	0	NO			
613176		A18019014DAC	AZ PUBLIC SERVICE,	EXEMPT	80	53	1	8/21/1979	6/10/1982	77	0	NO			
613177		A18019013CAA	AZ PUBLIC SERVICE,	EXEMPT	62	40	1	3/9/1979	6/10/1982	32	0	NO			
613178		A18019014DCD	AZ PUBLIC SERVICE,	EXEMPT	67	38	1	3/11/1979	6/10/1982	39	0	NO			
613179		A18019014DCD	AZ PUBLIC SERVICE,	EXEMPT	67	38	1	3/11/1979	6/10/1982	41	0	NO			
613180		A18019014DCD	AZ PUBLIC SERVICE,	EXEMPT	54	31	1	3/23/1979	6/10/1982	33	0	NO			
613181		A18019013CAD	AZ PUBLIC SERVICE,	EXEMPT	57	25	1	3/8/1979	6/10/1982	30	0	NO			
613182		A18019013CAD	AZ PUBLIC SERVICE,	EXEMPT	53	28	1	2/26/1979	6/10/1982	33	0	NO			
613183		A18019013CCA	AZ PUBLIC SERVICE,	EXEMPT	70	43	1	3/8/1979	6/10/1982	40	0	NO			
613184		A18019013CCA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	3/7/1979	6/10/1982	32	0	NO			
613185		A18019013CCA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	2/25/1979	6/10/1982	18	0	NO			
613186		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	2/25/1979	6/10/1982	3	0	NO			
613187		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	50	25	1	2/24/1979	6/10/1982	0	0	NO			
613188		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	55	21	1	2/23/1979	6/10/1982	21	0	NO			
613189		A18019013CCC	AZ PUBLIC SERVICE,	EXEMPT	55	31	1	2/22/1979	6/10/1982	7	0	NO			
613190		A18019024BBB	AZ PUBLIC SERVICE,	EXEMPT	60	33	1	2/21/1979	6/10/1982	0	0	NO			
613191		A18019023AAB	AZ PUBLIC SERVICE,	EXEMPT	58	37	0	3/6/1979	6/10/1982	5	0	NO			
613192		A18019023ABA	AZ PUBLIC SERVICE,	EXEMPT	50	27	1	2/27/1979	6/10/1982	12	0	NO			
613193		A18019025DAA	AZ PUBLIC SERVICE,	EXEMPT	26	16	1		6/10/1982	16	0	NO			
613194		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	56	41	1		6/10/1982	17	0	NO			
613195		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	77	57	1		6/10/1982	18	0	NO			
613196		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	146	133	2		6/10/1982	27	0	NO			
613197		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	92	52	1		6/10/1982	70	0	NO			
613198		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	191	175	2		6/13/1982	69	0	NO			
613199		A18019025ADA	AZ PUBLIC SERVICE,	EXEMPT	112	32	1		6/10/1982	97	0	NO			
613200		A18019025AAD	AZ PUBLIC SERVICE,	EXEMPT	132	32	1		6/10/1982	117	0	NO			
613201		A18020019CCA	AZ PUBLIC SERVICE,	EXEMPT	54	32	1	4/6/1979	6/10/1982	0	0	NO			
613202		A18020030DDA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/7/1979	6/10/1982	0	31	NO			
613203		A18019025AAC	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/7/1979	6/10/1982	39	0	NO			

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613204		A18019025ABA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/8/1979	6/10/1982	0	0	NO			
613205		A18019024DCD	AZ PUBLIC SERVICE,	EXEMPT	57	35	1	4/8/1979	6/10/1982	0	0	NO			
613206		A18020030DCB	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	3/27/1979	6/10/1982	0	0	NO			
613207		A18020030DCB	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	3/26/1979	6/10/1982	53	0	NO			
613208		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	3/27/1979	6/10/1982	0	0	NO			
613209		A18020030CDB	AZ PUBLIC SERVICE,	EXEMPT	51	29	1	4/5/1979	6/10/1982	0	0	NO			
613210		A18020030CDA	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/6/1979	6/10/1982	0	0	NO			
613211		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	70	43	1	4/6/1979	6/10/1982	58	0	NO			
613212		A18020030CBD	AZ PUBLIC SERVICE,	EXEMPT	51	29	1	4/5/1979	6/10/1982	18	0	NO			
613213		A18020030CBA	AZ PUBLIC SERVICE,	EXEMPT	120	88	1	5/19/1979	6/10/1982	55	0	NO			
613214		A18020030CBA	AZ PUBLIC SERVICE,	EXEMPT	120	88	2	5/16/1979	6/10/1982	96	0	NO			
613215		A18020030CBA	AZ PUBLIC SERVICE,	EXEMPT	116	88	1	5/7/1979	6/10/1982	77	0	NO			
613216		A18020030CBB	AZ PUBLIC SERVICE,	EXEMPT	70	43	1	3/26/1979	6/10/1982	11	0	NO			
613217		A18020030CBB	AZ PUBLIC SERVICE,	EXEMPT	37	19	1	4/3/1979	6/10/1982	21	0	NO			
613218		A18020030BCC	AZ PUBLIC SERVICE,	EXEMPT	100	79	1	5/1/1979	6/10/1982	59	0	NO			
613219		A18019030BCC	AZ PUBLIC SERVICE,	EXEMPT	103	81	1	4/18/1979	6/10/1982	80	0	NO			
613220		A18019025ADD	AZ PUBLIC SERVICE,	EXEMPT	60	38	1	4/4/1979	6/10/1982	51	0	NO			
613221		A18019025ADD	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/4/1979	6/10/1982	21	0	NO			
613222		A18019025ADD	AZ PUBLIC SERVICE,	EXEMPT	50	28	1	4/3/1979	6/10/1982	13	0	NO			
613223		A18019025ADA	AZ PUBLIC SERVICE,	EXEMPT	80	58	1	5/8/1979	6/10/1982	57	0	NO			
613399	345315110181201	A17019011BCC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	340	260	24	10/15/1974	6/9/1982	94	1250	YES			
613400	345413110184401	A17019003ACB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	260	24	7/17/1974	6/9/1982	105	638	YES	X	X	
613401	345247110172301	A17019011DDC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	299	24	3/1/1977	6/9/1982	96	750	YES			
613402	345344110165101	A17019001CDC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	470	279	24	1/1/1977	6/9/1982	69	1000	YES			
613403	345411110161601	A17019001ADA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	390	278	24	11/1/1976	6/9/1982	39	700	YES	X		
613404	345444110192501	A18019033DAD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	410	269	24	10/26/1977	6/9/1982	26	600	YES			
613405	345322110200201	A17019009BDB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	415	239	24	12/19/1978	6/9/1982	92	1250	YES	X		
613406	345256110192401	A17019009DDA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	319	24	12/20/1977	6/9/1982	126	1250	YES			
613407	345415110210301	A17019005BDA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	490	279	24	1/1/1978	6/9/1982	64	850	YES	X		
613408	3455001110210301	A18019032BDD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	314	24	6/13/1978	6/9/1982	98	1050	YES	X		
613409	345424110221301	A17019006BAB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	363	24	4/10/1978	6/9/1982	179	500	YES			
613410	345323110173001	A17019011ACA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	530	319	24	7/1/1977	6/9/1982	82	800	YES			
613411	345354110162701	A17019001DBD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	400	24	4/1/1977	6/9/1982	65	450	YES			
613412	345342110204801	A17019005DCD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	365	259	24	7/1/1978	6/9/1982	69	500	YES			
613413		A18019027BBB	AZTEC LAND & CATTLE CO LTD	EXEMPT	840	285	10	1/1/1977	6/9/1982	14	0	NO			
613414		A17019005BBB	AZTEC LAND & CATTLE CO LTD	EXEMPT	1020	282	10	1/1/1977	6/9/1982	111	0	NO			
613415		A17019001ADD	AZTEC LAND & CATTLE CO LTD	EXEMPT	755	50	10	1/1/1977	6/9/1982	45	0	NO			
613416		A17019009AAD	AZTEC LAND & CATTLE CO LTD	EXEMPT	780	44	10	1/1/1977	6/9/1982	100	0	NO			
613417		A18019027DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	900	163	10	1/1/1977	6/9/1982	14	0	NO			
613418		A1801903SDDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	560	120	11	12/31/1977	6/9/1982	65	0	NO	X	X	
613421		A1801903SDDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	520	57	10	1/1/1977	6/9/1982	33	0	NO			
613422		A18019030DCD	AZTEC LAND & CATTLE CO LTD	EXEMPT	670	288	10	6/1/1977	6/9/1982	72	0	NO			
613423	345321110213001	A17019007ADA	AZTEC LAND & CATTLE CO LTD	EXEMPT	555	141	10	1/1/1977	6/9/1982	92	0	NO			
613424		A18019032AAA	AZTEC LAND & CATTLE CO LTD	EXEMPT	854	136	11	8/1/1978	6/9/1982	25	0	NO			
613425		A17019005ADD	AZTEC LAND & CATTLE CO LTD	EXEMPT	845	112	10	7/21/1978	6/9/1982	42	0	NO			
613429	3456081102500O1	A18018027AAB	AZTEC LAND & CATTLE CO LTD	EXEMPT	555	190	11	6/28/1977	6/9/1982	0	0	NO		X	
613443	345618110224001	A18018024DDD	AZTEC LAND AND CATTLE CO., LTD	EXEMPT	338	338	24	8/15/1978	6/9/1982	0	0	NO	X	X	
613444		A18018024ADD	AZTEC LAND AND CATTLE CO., LTD	EXEMPT	785	278	10	1/1/1977	6/9/1982	20	0	NO			
614307		A18020028ACD	AZ STATE LAND DEPT,	EXEMPT	0	0	0	1/1/1975	6/14/1982	0	17	NO			
614308		A18020032DDA	AZ STATE LAND DEPT,	EXEMPT	100	0	9	1/1/1958	6/14/1982	0	0	NO	X		
616734		A17020010000	DANIEL J & BEKI A HEALY	NON-EXEMPT	75	3	8	1/1/1950	5/25/1982	25	250	NO			
616735		A17020008B00	JUAN BARRERAS	NON-EXEMPT	350	60	10	4/1/1959	5/25/1982	45	395	YES			
617195		A17020007000	BURRELL,M J	NON-EXEMPT	250	16	8	3/1/1975	6/2/1982	90	60	YES			
617485		A17020011AAD	MYERS,J	NON-EXEMPT	270	100	12	1/1/1932	4/16/1982	11	100	NO			

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton D	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
618132		A17020010CCB	FARMERS HOME,	EXEMPT	150	150	6	1/1/1977	6/9/1982	50	35	NO			
618962		A17020007ABA	BRUCE & CHELSIE GERMAIN	NON-EXEMPT	135	7	12	4/1/1975	6/11/1982	46	97	YES			
618963		A17020007ABA	NEWTON,F E	EXEMPT	135	7	12	4/1/1975	6/11/1982	4634	34000	NO			
619248		A17020010CDA	JORDAN AUTOBEE	NON-EXEMPT	200	40	6	1/1/1940	6/14/1982	60	100	NO			
619249		A17020010CBB	BRANDON & BRIGGETTE BRIMHALL	NON-EXEMPT	150	20	6	1/1/1978	6/14/1982	30	50	NO			
619389		A17020007ADD	DAVENPORT,M	NON-EXEMPT	235	50	10	1/1/1974	6/14/1982	40	300	YES			
619460		A17020007CCB	FIRKINS,J L	EXEMPT	200	0	6	1/16/1979	6/14/1982	80	35	YES			
620357		A17020010CDB	FERGUSON,E J	NON-EXEMPT	180	0	12		6/14/1982	25	1000	NO			
620358		A17020010CBA	FERGUSON,E J	NON-EXEMPT	100	22	12		6/14/1982	22	600	NO			
620359		A17020010CBA	FERGUSON,E J	NON-EXEMPT	100	15	10	1/1/1968	6/14/1982	22	400	NO			
620360		A17020010CCC	WILSON,G	NON-EXEMPT	180	30	10	1/1/1974	6/14/1982	50	1000	NO			
620686		A17020007ABA	KEENE SR,R J	NON-EXEMPT	150	12	12	3/5/1975	6/14/1982	48	3	YES			
620722	345414110153601	A17020006ACB	JOSEPH CITY IRRIGATION COMPANY	NON-EXEMPT	403	8	14	2/1/1948	6/14/1982	32	1009	YES	X	X	
620723	345410110153201	A17020006DBA	JOSEPH CITY IRRIGATION COMPANY	NON-EXEMPT	300	240	14	4/17/2009	6/14/1982	19	744	YES	X	X	
620724	345736110204201	A18019017ADC	JOSEPH CITY IRRIG CO,	NON-EXEMPT	425	275	12	1/1/1975	6/14/1982	90	1200	YES			
621980	345327110154701	A17020007BAD	MCLAWS,J R	NON-EXEMPT	200	10	10		6/14/1982	45	100	NO			
622735	345313110110401	A17020011ADC	DAVIS,L W	NON-EXEMPT	0	0	8	1/1/1952	5/19/1982	0	50	NO			
627200		A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	460	10	12	1/1/1960	2/9/1982	92	525	YES			
627201		A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	180	8	8	1/1/1966	2/9/1982	8	100	NO			
627202		A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	250	10	7	12/12/1976	2/9/1982	74	100	NO			
627203		A17020007BDC	ZUFELT, L. MAYNARD,	NON-EXEMPT	150	51	6	11/1/1976	2/9/1982	47	100	NO			
627238		A18018015AAD	ATCHISON-TOPEKA,	NON-EXEMPT	43	43	8	1/1/1941	6/10/1982	0	0	NO			
627252		A17020006AAC	ATCHISON-TOPEKA,	NON-EXEMPT	80	80	6	2/27/1940	6/10/1982	0	0	NO			
628494	345727110200501	A18019016000	JOSEPH CITY WATER,	NON-EXEMPT	460	300	10	1/1/1946	5/13/1982	70	300	NO			
628495	345722110212901	A18019017CBC	JOSEPH CITY WATER,	NON-EXEMPT	390	290	10	9/7/1972	5/13/1982	50	600	YES			
628496	345720110212601	A18019017CBC	JOSEPH CITY WATER,	NON-EXEMPT	400	300	10	10/1/1977	5/13/1982	50	600	YES			
628497	345726110200601	A18019016000	JOSEPH CITY WATER,	NON-EXEMPT	500	300	10	1/1/1942	5/13/1982	70	300	NO			
628564		A17020007000	EDWIN & BRENDA BURROUGHS	NON-EXEMPT	250	35	6		6/21/1982	65	65	YES			
629256	345714110201901	A18019016CCA	DELWIN OR EVELYN SOLOMON	NON-EXEMPT	425	0	10		6/17/1982	20	1000	YES	A		
629415		A17020010000	DAVID & DEBBIE SHUMWAY	NON-EXEMPT	200	20	12	1/1/1970	6/25/1982	40	500	NO			
629686	345320110151601	A17020007AAC	MELINDA WHITE	EXEMPT	0	0	0		3/2/1982	0	35	NO			
629709		A17020010CBB	BRANDON & BRIGGETTE BRIMHALL	EXEMPT	115	20	6	1/1/1979	3/1/1982	40	20	NO			
629893		A18020033ACD	DILLOW,W C	EXEMPT	170	90	6	3/1/1980	2/4/1982	70	25	NO			
630190		A17020007DBB	MCLAWS,G T	EXEMPT	400	0	14	4/1/1961	2/19/1982	90	2	NO			
631391		A17020007BBB	PAGE, FRANK,L	EXEMPT	175	48	6	1/12/1980	3/23/1982	155	25	NO			
632346		A17020010CC0	ALBERT M FERNIZA	EXEMPT	275	20	8	1/1/1973	4/6/1982	55	5	NO			
632472		A17020010ACC	MAURICE L. JONES	EXEMPT	200	12	6	5/16/1978	5/3/1982	52		NO	X	X	
633413		A17020010DDD	TERMAIN,D	NON-EXEMPT	103	18	8	3/1/1968	6/21/1982	13	110	NO			
633414		A17020010ACD	TERMAIN,D	NON-EXEMPT	100	10	8	4/1/1975	6/21/1982	8	100	NO			
637905		A18020033BCA	HOLYOAK,J	EXEMPT	170	40	6	3/19/1980	6/14/1982	100	35	NO			
638034		A18020031BDC	HUNT,D	EXEMPT	130	40	9	10/20/1980	6/14/1982	33	25	NO			
638807		A17020009BDB	DAVIE & CYNTHIA MOYA	NON-EXEMPT	0	0	15		6/14/1982	0	30	NO			
638808		A17020009BDB	MARVIN & KAREN MCLEMORE	EXEMPT	0	0	9		6/14/1982	0	30	NO			
638809		A17020009BDB	HARKEY, JOHN,	EXEMPT	0	0	9		6/14/1982	0	0	NO			
641097		A17020007CCC	KILEY AND ABBIE REIDHEAD	EXEMPT	220	10	6	2/11/1975	4/15/1982	120	0	NO	X	X	

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641098		A17020007CCC	JAMES PRUITT	EXEMPT	180	10	6	2/8/1975	4/15/1982	100	0	NO	X	X	
641524		A18020033BAA	MYERS,V W	EXEMPT	265	0	6		4/13/1982	140	0	NO			
641851		A18020033CAC	PERKINS,W D	EXEMPT	200	81	7	5/1/1979	4/27/1982	70	30	NO			
642511		A18018011CCD	HANSEN BROTHERS	EXEMPT	810	220	11	1/17/1978	6/8/1982	33	0	NO		X	
642512		A18018013BAD	NEW MEXICO-AZ LND CO,	EXEMPT	795	68	16	4/8/1978	6/8/1982	35	0	NO			
644029		A18020033BDA	EVELYN CAROLE USSHER	EXEMPT	400	125	8	7/14/1972	5/18/1982	101	30	NO			
645034	345435110134901	A18020033CCD	ROGERS,A W	EXEMPT	200	85	9	12/13/1968	6/10/1982	35	35	NO			
645218		A17020011DBD	NASH,A F	EXEMPT	0	0	0		6/8/1982	0	0	NO			
645315		A17020011ACD	ALLEN MITCHELL	EXEMPT	120	0	8		6/11/1982	55	20	NO			
645395		A17019012BDD	CATHLEEN MILEHAM	EXEMPT	0	8	12		6/4/1982	89	0	NO			
648192		A17020010CBB	JOSEPH THOMAS SANTOS	EXEMPT	125	27	8	9/21/1979	6/14/1982	60	35	NO			
650048		A17020007DAA	JEFFERY M BALOO	EXEMPT	250	12	10	8/22/1973	6/24/1982	50	35	NO			
650086		A18019022ABC	LANE,J E	NON-EXEMPT	750	750	10		7/14/1982	50	200	YES			
650137		A17020010CBC	DAVID C. & TAMMY M. HAGER	EXEMPT	200	6	8	1/1/1977	6/16/1982	45	30	NO			
650524	345310110124801	A17020010CBA	PAULSELL,J L	EXEMPT	85	45	6	1/1/1964	6/30/1982	19	0	NO			
650787		A17020010C00	COOLEY,S R	EXEMPT	100	6	3	1/1/1971	6/17/1982	50	0	NO			
801481		A17020009ABA	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	50	NO			
801482		A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	200	NO			
801483		A17020009AAB	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	50	NO			
801484		A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	0	NO			
801485		A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12	1/1/1938	5/17/1984	0	0	NO			
802073		A17020011DCC	OWENS,E J	NON-EXEMPT	170	70	8	9/15/1979	3/14/1985	90	250	NO			
802290		A18019017DAA	F B HANSEN	EXEMPT	440	400	6	1/1/1946	5/20/1985	50	30	NO			
802415		A17020010CCA	THOMAS D CATERN	NON-EXEMPT	150	30	8		6/18/1985	15	300	NO			
802416		A17020010BBB	ZUFELT,K L	EXEMPT	75	8	8	1/1/1976	6/18/1985	6	0	NO			
802422		A17020007000	SIZEMORE,R E	NON-EXEMPT	0	0	6	8/1/1973	5/31/1985	30	90	NO			
803003		A17020010CBA	WESTERN SAVINGS,	EXEMPT	0	0	0		9/17/1985	0	0	NO			
805293		A18019017BD0	DOUGLAS AND PATRICIA POGUE	EXEMPT	0	0	0	12/31/1937	11/1/1988	0	0	NO			
806201		A17020011D00	SEVENTH DAY ADVENT.,	NON-EXEMPT	250	90	12	12/31/1973	11/25/1991	35	500	NO			
806202		A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	200	0	10	12/31/1945	11/25/1991	35	100	NO			
806203	345304110113601	A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	220	90	12	12/31/1971	11/25/1991	37	150	NO			
806204		A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	200	80	5	12/31/1945	11/25/1991	35	100	NO			
808211		A18018034DAB	BRYAN & CASSYDE JOLLEY	NON-EXEMPT					8/8/2001			NO			
808212	345452110245401	A18018034DAB	BRYAN & CASSYDE JOLLEY	NON-EXEMPT					8/8/2001			NO			
808461		A18019017BCA	MARCI A. & JOSEPH M. ZABADAL	EXEMPT					5/16/2003			NO			
808706		A17020010BCC	DON E OR JEANNE E HUNSAKER	EXEMPT	100	30	6	1/1/1972	11/3/2004			NO			
809098		A17020005000	JOHN & CAROLYN NATCHER	EXEMPT								NO			App dated 8/3/2006, late well registry
809311		A17019012ADD	JASON & CRYSTAL CASTILLO	EXEMPT					1/26/2009			NO			
810061		A17020010CDC	RICK & TWYLA TAYLOR	EXEMPT	200	200	6	1/1/1963	4/8/2019	70	25	NO			
810208		A18019016CCD	ELDON LARSEN	NON-EXEMPT				1/1/1950	2/17/2021			NO			
810300		A18019035ADA	ARIZONA PUBLIC SERVICE CO.	EXEMPT	450	450	10	1/1/1947	12/8/2021	30		NO			
810301		A18019023DAD	ARIZONA PUBLIC SERVICE CO.	EXEMPT	550	550	16	1/1/1959	12/8/2021	50		NO			
901893		A18019016CCB	ADOT, ATTN: J.J. LIU	MONITOR	30	30	2	3/23/2005	3/16/2005	20		NO	A	X	
903874		A17020003AAD	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	30	30	2	12/20/2005	12/20/2005	13		NO	A	X	
904175		A17019010BAD	SAGE A. & DEBORAH D. SCHOLER	EXEMPT	593	593	7	2/20/2006	2/6/2006	465	18	NO	X	X	
905032		A18019016ACD	SPARTA INVESTMENTS INC.	MONITOR					6/16/2006			NO			
905034		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905035		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905036		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905037		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
905038		A18019016DCA	SPARTA INVESTMENTS, INC.	MONITOR					6/16/2006			NO			
906362	345435110171001	A18019036CCC	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT					2/1/2007			YES			
906363		A18019036DDC	ARIZONA PUBLIC SERVICE CORPORATION	NON-EXEMPT					2/1/2007			YES			

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906364		A18019035AAB	ARIZONA PUBLIC SERVICE CORPORATION	NON-EXEMPT	481	470	20	7/15/2007	2/1/2007	30		YES		X	
906365		A18019036BBA	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	500	470	17	8/11/2007	2/1/2007	34		YES		X	
906812	345433110162101	A18019036DDD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT					4/12/2007			YES			
906917		A18019023CCD	ARIZONA PUBLIC SERVICE CO	OTHER					5/4/2007			NO			
907167		A18019023DDD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT					6/11/2007			YES			
907560		A17019011ABD	ARIZONA PUBLIC SERVICE CO	MONITOR	400	400	5	8/25/2007	8/7/2007			NO		X	
907561		A18019026CCC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	8	9/7/2007	8/7/2007	35		NO		X	
907562		A17019002AAA	ARIZONA PUBLIC SERVICE CO	MONITOR	251	250	5	8/23/2007	8/7/2007			NO		X	
907563		A17019002AAA	ARIZONA PUBLIC SERVICE CO	MONITOR	502	500	9	8/23/2007	8/7/2007	66		NO		X	
907565		A18019034DBA	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	9/22/2007	8/7/2007			NO		X	
907567		A18019036BCC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	9/19/2007	8/7/2007	38		NO		X	
907571		A17019002BBB	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	8/28/2007	8/7/2007			NO		X	
907572		A17019004ADC	ARIZONA PUBLIC SERVICE CO	NON-EXEMPT	530	520	21	10/15/2007	8/7/2007	89		NO		X	
907659		A17019010ADD	ARIZONA PUBLIC SERVICE CIMPANY	NON-EXEMPT	510	500	21	8/28/2007	8/23/2007	129		NO		X	
907660		A17019002BBB	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	500	490	21	2/7/2008	8/23/2007	67		NO		X	
907676		A18019016CBD	SPARTA INVESTMENTS	MONITOR	16	16	8	8/28/2007	8/27/2007	0		NO		X	
907677		A18019016CBD	SPARRA INVESTMENTS	MONITOR	40	40	2	8/28/2007	8/27/2007	25		NO		X	
907678		A18019016CBD	SPARTA INVESTMENTS	MONITOR	31	30	8	8/29/2007	8/27/2007	25		NO		X	
907679		A18019016CBD	SPARTA INVESTMENTS	MONITOR	31	30	8	8/29/2007	8/27/2007	25		NO		X	
907680		A18019016CBD	SPARTA INVESTMENTS	MONITOR	31	30	8	8/29/2007	8/27/2007	25		NO		X	
907681		A18019016CBD	SPARTA INVESTMENTS	MONITOR	16	16	8	8/28/2007	8/27/2007	0		NO		X	
907834		A17019002CCD	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	9/26/2007	9/21/2007	90		NO		X	
907835		A17019004CBC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	11/7/2007	9/21/2007	108		NO		X	
907836		A17019010BBC	ARIZONA PUBLIC SERVICE CO	MONITOR	500	500	5	10/3/2007	9/21/2007	113		NO		X	
907883		A17019002ADD	ARIZONA PUBLIC SERVICE CO	MONITOR	360		8	10/8/2007	9/28/2007			NO		X	
907990		A17019002ADD	ARIZONA PUBLIC SERVICE CO	OTHER	360		8	10/9/2007	10/17/2007			NO		X	
908367		A17019002DCC	ARIZONA PUBLIC SERVICE	MONITOR	505	500	5	1/14/2008	1/18/2008	90		NO		X	
908486		A18019016DBC	SPARTA INVESTMENTS	MONITOR	30	30	8	3/3/2008	2/8/2008	25		NO		X	
908668		A18020033DDC	PACIFIC HOLT CORP.	NON-EXEMPT	300	300	8	5/27/2008	3/11/2008	72		NO		X	
908742		A17019002CCD	ARIZONA PUBLIC SERVICE CORP.	NON-EXEMPT	500	490	21	4/22/2008	3/27/2008	91		NO		X	
909085		A18019022CBC	AZTEC LAND & CATTLE CO LTD.	OTHER	90		7	5/28/2008	5/23/2008			NO	A	X	
909086		A18019016BCD	THRIFTWAY MARKETING	MONITOR	32	30	2	5/28/2008	5/23/2008	20		NO		X	
909087		A18019016BCD	THRIFTWAY MARKETING	MONITOR					5/23/2008			NO			
909088		A18019016CBD	THRIFTWAY MARKETING	MONITOR	30	30	2	5/27/2008	5/23/2008	20		NO		X	
909089		A18019016CBD	THRIFTWAY MARKETING	MONITOR	35	35	2	5/30/2008	5/23/2008	20		NO		X	
909090		A18019016CBD	THRIFTWAY MARKETING	MONITOR	32	30	2	5/28/2008	5/23/2008	20		NO		X	
909091		A18019016CBD	THRIFTWAY MARKETING	MONITOR	32	30	2	5/28/2008	5/23/2008	20		NO		X	
909092		A18019016CBD	THRIFTWAY MARKETING	MONITOR	35	35	2	5/28/2008	5/23/2008	20		NO		X	
909093		A18019016CBD	THRIFTWAY MARKETING	MONITOR	20	20	2	5/31/2008	5/23/2008			NO		X	
909094		A18019016DAC	THRIFTWAY MARKETING	MONITOR	35	35	2	5/30/2008	5/23/2008	20		NO		X	
909096		A18019016DAC	THRIFTWAY MARKETING	MONITOR	35	35	2	5/31/2008	5/23/2008	20		NO		X	
909097		A18019016DAC	THRIFTWAY MARKETING	MONITOR					5/23/2008			NO			
909098		A18019016DAC	THRIFTWAY MARKETING	MONITOR	32	32		5/29/2008	5/23/2008	20		NO		X	
909099		A18019016CBD	THRIFTWAY MARKETING	MONITOR	32	32	2	5/29/2008	5/23/2008	20		NO		X	
909100		A18019016CBD	THRIFTWAY MARKETINGT	MONITOR	32	32	2	5/29/2008	5/23/2008	20		NO		X	
909102		A18019016CBD	THRIFTWAY MARKETING	MONITOR					5/23/2008			NO			
909103		A18019016CBD	THRIFTWAY MARKETING	OTHER	20	20		5/31/2008	5/23/2008			NO		X	
909105		A18019016CBD	THRIFTWAY MARKETING	OTHER	18	18	2	5/31/2008	5/23/2008			NO		X	
909106		A18019016CBD	THRIFTWAY MARKETING	OTHER	18	18	2	5/31/2008	5/23/2008			NO		X	
909401		A17020010CCB	RONALD LEE SMITH	EXEMPT	160	160	6	7/11/2008	7/11/2008	67	25	NO	X	X	
909605		A18019016DAC	THRIFTWAY MARKETING	MONITOR	32	30	2	5/29/2008	8/20/2008	20		NO		X	
909750		A17020009ADA	HEATHER SMITH	EXEMPT	160	160	5	9/28/2008	9/17/2008	35	35	NO	X	X	
909768		A17020007BBA	GERALD BRIGGS	EXEMPT	160	160	6	9/19/2008	9/18/2008	66		NO		X	
909797		A17020006CBC	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	400	400	5	10/3/2008	9/24/2008	28		NO		X	
909801		A18019022CCC	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	535	530	5	10/30/2008	9/25/2008	30		NO		X	
909802		A17020006CBB	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	410	400	5	10/7/2008	9/25/2008	64		NO		X	
909803		A18019028CCC	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	510	500	5	11/6/2008	9/25/2008	29		NO		X	
909987		A18020030BBA	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	290	280	5	11/18/2008	10/30/2008			NO		X	
909988		A18020030BBA	ARIZONA PUBLIC SERVICE COMPANY CHOLLA POWER PLANT	MONITOR	385	380	5	11/15/2008	10/30/2008	140		NO		X	
910007		A18019025CDC	ARIZONA PUBLIC SERVICE CO	MONITOR	60		10	11/21/2008	11/6/2008			NO		X	
910008		A18019026DAB	ARIZONA PUBLIC SERVICE CO	MONITOR	90	65	5	11/22/2008	11/6/2008	30		NO		X	

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Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton D	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
910009		A18019023DDD	ARIZONA PUBLIC SERVICE CO	MONITOR	75	70	5	11/20/2008	11/6/2008	45		NO		X	
910010		A18019023DDD	ARIZONA PUBLIC SERVICE CO	MONITOR	180	170	5	12/4/2008	11/6/2008	45		NO		X	
910011		A18019026DBA	ARIZONA PUBLIC SERVICE CO	MONITOR	70	60	8	11/23/2008	11/6/2008	38		NO		X	
910012		A18019035AAA	ARIZONA PUBLIC SERVICE CO	MONITOR	46	40	8	11/24/2008	11/6/2008	34		NO		X	
910013		A18019025BDA	ARIZONA PUBLIC SERVICE CO	MONITOR	80	70	5	11/21/2008	11/6/2008	34		NO		X	
910248		A18019015CDA	LOVE'S COUNTRY STORES	MONITOR	20	20		1/14/2009	1/9/2009			NO		X	
910249		A18019015CDA	LOVE'S COUNTRY STORES	MONITOR	22				1/9/2009			NO		X	
910250		A18019015CDA	LOVE'S COUNTY STORES	MONITOR	20				1/9/2009			NO		X	
910278		A18019016CBD	ROSS ROGERS	MONITOR					1/15/2009			NO		I	
910279		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/19/2009	1/15/2009	18		NO		X	
910280		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910281		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910282		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910283		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910284		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910285		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910286		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910287		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910288		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910289		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910290		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO			
910291		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910292		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910293		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910294		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910295		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910296		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910297		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910298		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910300		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910301		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910302		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/25/2009	1/15/2009	18		NO		X	
910303		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/25/2009	1/15/2009	18		NO		X	
910304		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/25/2009	1/15/2009	18		NO		X	
910305		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910306		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910307		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910308		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/15/2009	18		NO		X	
910312		A18019016CBD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910313		A18019016CBD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910314		A18019016CBD	ROSS ROGERS	MONITOR	30	30		1/29/2009	1/16/2009	18		NO		X	
910315		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910316		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910317		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910318		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910319		A18019016CBD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910320		A18019016CBD	ROSS ROGERS	MONITOR	32	32	4	1/29/2009	1/16/2009	18		NO		X	
910321		A18019016BCD	ROSS ROGERS	MONITOR	32	32		1/29/2009	1/16/2009	18		NO		X	
910324		A17020006BAD	ARIZONA PUBLIC SERVICE COMPANY	NON-EXEMPT	400	240	21	4/10/2009	1/19/2009	29		NO		X	
910623		A18019023ACC	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	41	41	2	4/1/2009	4/8/2009	25		NO	A	X	
910624		A18019023000	ARIZONA DEPARTMENT OF TRANSPORTATION	OTHER	40		8	4/1/2009	4/8/2009	25		NO	A	X	
910717		A17020011000	CITY OF HOLBROOK	OTHER	45		8	5/18/2009	5/11/2009	20		NO	A	X	
910718		A17020002000	CITY OF HOLBROOK	OTHER	45		8	5/28/2009	5/11/2009	23		NO	A	X	
910723		A17020007DAC	DANIELLE FERNIZA	EXEMPT	200	100	6	6/21/2009	5/11/2009	95		NO		X	
911102		A17020002000	CITY OF HOLBROOK	OTHER					9/11/2009			NO			
911103		A17020002000	CITY OF HOLBROOK	OTHER					9/11/2009			NO			
912020		A17020009BCA	PENFIELD, CHARLENE PENFIELD, ALVIN	EXEMPT	155	155	5	5/14/2010	5/5/2010	25	25	NO	X	X	
912635		A17019012DAA	JESSIE AARYN BLINK	EXEMPT	363	100	6	12/1/2010	10/18/2010	83		NO		X	
912800		A18019013CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					12/27/2010			NO		I	
913769		A18019025BAA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	68	30		11/12/2011	11/3/2011	28		NO		X	
913770		A18019023CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	122	59		11/10/2011	11/3/2011	39		NO		X	
913771		A18019025DBA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR				11/11/2011	11/3/2011			NO		X	
913772		A18019022DDB	ARIZONA PUBLIC SERVICE COMPANY	OTHER	183			11/12/2011	11/3/2011			NO	A	X	
913983		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/16/2012			NO			
913984		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/16/2012			NO			
913985		A18019023CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/16/2012			NO			

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913993		A18019013DDD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					1/18/2012			NO			
914942		A18018014BDB	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	60	60	2	11/20/2012	11/14/2012	23		NO		X	
915393		A17020007BCC	BRYANT PETERSEN	NON-EXEMPT	220	220	6	6/3/2013	3/28/2013	68	10	NO	X	X	
916857		A17020010DCB	DAVID & DEBBIE SHUMWAY	EXEMPT					5/1/2014			NO			
917009		A18019023DCC	APS - CHOLLA POWER PLANT	OTHER					6/4/2014			NO	A	X	
917515		A18019022D00	BNSF RAILWAYS	OTHER	100		8	11/4/2014	11/6/2014	24		NO	A	X	
917536		A18019025000	ARIZONA PUBLIC SERVICE COMPANY	OTHER	61		8	11/20/2014	11/13/2014	32		NO	A	X	
917606		A18019023ACC	ARIZONA DEPARTMENT OF TRANSPORTATION	MONITOR	60	60	2	12/10/2014	12/8/2014	30		NO	A	X	
917710		A18019023000	ARIZONA DEPARTMENT OF TRANSPORTATION	OTHER	40			12/11/2014	1/14/2015	30		NO	A	X	
918505		A17020009ACD	TYLER KEE STINGLEY	EXEMPT	175	175	7	6/10/2015	8/6/2015	35	80	NO	X	X	
918535		A17020007ABD	SHERRA LOUISE WAHL	EXEMPT	180	180	8	8/31/2015	8/14/2015	35		NO		X	
918638		A18019025CDC	ARIZONA PUBLIC SERVICE	MONITOR	57	55	5	11/18/2015	9/11/2015	38		NO		X	
918639		A18019036ADB	ARIZONA PUBLIC SERVICE	MONITOR	35	20	4	9/16/2015	9/11/2015			NO		X	
918640		A18019025ADD	ARIZONA PUBLIC SERVICE	MONITOR	14	12	4	9/18/2015	9/11/2015			NO		X	
918641		A18020030CBB	ARIZONA PUBLIC SERVICE	MONITOR	32	29	4	9/18/2015	9/11/2015			NO		X	
918645		A18020030CAC	ARIZONA PUBLIC SERVICE	MONITOR	13			9/19/2015	9/11/2015			NO		X	
918646		A18019013CAB	ARIZONA PUBLIC SERVICE	MONITOR	370	365	5	10/12/2015	9/11/2015			NO		X	
918647		A18019013CBB	ARIZONA PUBLIC SERVICE	MONITOR	425	423	5	10/21/2015	9/11/2015	197		NO		X	
918648		A18019013BCA	ARIZONA PUBLIC SERVICE	MONITOR	420	415	5	11/13/2015	9/11/2015	195		NO		X	
918649		A18019013BAC	ARIZONA PUBLIC SERVICE	MONITOR	450	445	5	11/1/2015	9/11/2015	225		NO		X	
918651		A18019023AAB	ARIZONA PUBLIC SERVICE	MONITOR					9/11/2015			NO			
918657		A18019024BBC	ARIZONA PUBLIC SERVICE	MONITOR	83	70	4	9/21/2015	9/14/2015			NO		X	
918658		A18019023CBD	ARIZONA PUBLIC SERVICE	MONITOR	97	84	5	11/17/2015	9/14/2015	42		NO		X	
918659		A18019023CBC	ARIZONA PUBLIC SERVICE	MONITOR	100	85	5	10/13/2015	9/14/2015	42		NO		X	
918660		A18019023CBC	ARIZONA PUBLIC SERVICE	MONITOR	100	85	5	10/8/2015	9/14/2015	41		NO		X	
918661		A18019023CBC	ARIZONA PUBLIC SERVICE	MONITOR	100	85	5	10/7/2015	9/14/2015	41		NO		X	
918701		A18019013DDB	ARIZONA PUBLIC SERVICES	MONITOR	60	55	5	10/3/2015	9/30/2015			NO		X	
919328		A17020009ACC	DOREEN JOHNSON	EXEMPT	250	250	6	11/8/2016	4/4/2016	40	30	NO	X	X	
919786		A18019023BAD	ARIZONA PUBLIC SERVICES (APS)	MONITOR	60	60	4	8/24/2016	8/11/2016	40		NO		X	
919787		A18019023BCC	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/25/2016	8/11/2016	40		NO		X	
919788		A18019023CCC	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/26/2016	8/11/2016	40		NO		X	
919789		A18019026AAD	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/29/2016	8/11/2016	42		NO		X	
919790		A18019024CDD	ARIZONA PUBLIC SERVICE (APS)	MONITOR	60	60	4	8/23/2016	8/11/2016	42		NO		X	
919791		A18019023DAB	ARIZONA PUBLIC SERVICE (APS)	MONITOR	120	118	4	8/19/2016	8/11/2016	42		NO		X	
920353		A18019021CCB	ARIZONA PUBLIC SERVICE (APS)	MONITOR	69	60	4	2/11/2017	2/3/2017	23		NO		X	
920467		A17020010BCC	MICHEAL SERNA	EXEMPT	160	160	5	4/18/2017	4/6/2017	68		NO		X	
921016		A18019022DDB	ARIZONA PUBLIC SERVICE - APS	MONITOR	126	119	4	11/4/2017	10/25/2017	50		NO		X	
921042		A18019022DDB	ARIZONA PUBLIC SERVICE (APS)	OTHER	66			11/5/2017	11/3/2017	60		NO	A	X	
921058		A18019026BBA	ARIZONA PUBLIC SERVICE	MONITOR	62	60	2	11/15/2017	11/8/2017	37		NO		X	
921059		A18019026BBA	ARIZONA PUBLIC SERVICE	MONITOR	62	60	2	11/16/2017	11/8/2017	36		NO		X	
921060		A18019023CCC	ARIZONA PUBLIC SERVICE	MONITOR					11/8/2017			NO			
921061		A18019023CCC	ARIZONA PUBLIC SERVICE	MONITOR					11/8/2017			NO			
921392		A18019026BB0	ARIZONA PUBLIC SERVICE	OTHER	51		6	2/27/2018	2/28/2018			NO		X	
921515		A18020014BCB	JAMES CASEY MURPH	EXEMPT	160	160		4/24/2018	4/2/2018	60		NO		X	
922299		A18019025DAB	ARIZONA PUBLIC SERVICE	MONITOR	25	19	4	11/14/2018	11/7/2018	14		NO		X	
922300		A18020030CBC	ARIZONA PUBLIC SERVICE	MONITOR	60	49	4	11/26/2018	11/7/2018	29		NO		X	
922301		A18019025DDB	ARIZONA PUBLIC SERVICE	MONITOR	50	45		11/15/2018	11/7/2018	34		NO		X	
922954		A18019023CCD	ARIZONA PUBLIC SERVICE	MONITOR	86	70	4	5/22/2019	5/10/2019	46		NO		X	
922955		A18019023CCC	ARIZONA PUBLIC SERVICE	MONITOR	96	82	4	5/17/2019	5/10/2019	46		NO		X	
923204		A18019015DCA	LOVES TRAVEL STOP AND COUNTRY STORES, INC	MONITOR					7/24/2019			NO			
923205		A18019015DCA	LOVES TRAVEL STOP & COUNTRY STORE, INC.	MONITOR					7/24/2019			NO			
923206		A18019015DCA	LOVES TRAVEL STOP & COUNRY STORE, INC.	MONITOR					7/24/2019			NO			
923207		A18019015DCA	LOVES TRAVEL SHOP & COUNTRY STORE, INC.	MONITOR					7/24/2019			NO			
923346		A18019025BAD	ARIZONA PUBLIC SERVICE	MONITOR	50			9/18/2019	9/9/2019			NO		X	
923582		A18019024BBB	ARIZONA PUBLIC SERVICE	MONITOR	77	75	3	11/22/2019	11/6/2019			NO		X	
923598		A18019014DDA	ARIZONA PUBLIC SERVICE	OTHER	62			11/19/2019	11/12/2019	9		NO	A	X	
923618		A18019024BBB	ARIZONA PUBLIC SERVICE	MONITOR	53		3	11/19/2019	11/18/2019			NO		X	
923825		A17020010CCB	CLARK L COLE	EXEMPT	170	170	6	1/22/2020	1/21/2020			NO		X	
923973		A18019020000	ARIZONA PUBLIC SERVICE	OTHER	40			3/3/2020	3/2/2020			NO	A	X	
924142		A18018010000	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY	OTHER					4/6/2020			NO			
925215		A18020030CBD	ARIZONA PUBLIC SERVICES	OTHER	55	52	6	12/12/2020	12/2/2020			NO		X	
925216		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	30	24	6	12/10/2020	12/2/2020			NO		X	
925217		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	55	55	6	12/10/2020	12/2/2020			NO		X	
925218		A18020030CBD	ARIZONA PUBLIC SERVICE	OTHER	55	53	6	12/11/2020	12/2/2020			NO		X	
925219		A18020030000	ARIZONA PUBLIC SERVICE	OTHER					12/2/2020			NO			
925220		A18019025000	ARIZONA PUBLIC SERVICE	OTHER					12/2/2020			NO			

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925226		A18019023CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	71	70	4	12/11/2020	12/4/2020	40		NO		X	
925227		A18019023CDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	71	70	4	12/9/2020	12/4/2020	40		NO		X	
925727		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC.	MONITOR	36	36	2	3/15/2021	3/11/2021	11		NO		X	ADWR records sent to APS in 2021 Q3
925728		A18019015DCA	LOVES TRAVELS STOPS & COUNTRY STORES, INC	MONITOR	36	36	2	3/16/2021	3/11/2021			NO		X	ADWR records sent to APS in 2021 Q3
925729		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR	36	36	2	3/16/2021	3/11/2021			NO		X	ADWR records sent to APS in 2021 Q3
925730		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR	35	36	2		3/11/2021	6		NO		X	ADWR records sent to APS in 2021 Q3
926097		A18019023AAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	55	55	6	5/5/2021	4/22/2021	2		NO		X	
926099		A18019023AAA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	130	130	6	5/13/2021	4/22/2021	4		NO		X	
926100		A18019023AAA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	84	81	6	5/3/2021	4/22/2021	19		NO		X	
926101		A18019013CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					4/22/2021			NO			
926102		A18019013CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	29	25	6	5/16/2021	4/22/2021	10		NO		X	
926103		A18019023ADC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	52	26	4	5/1/2021	4/22/2021			NO		X	
926104		A18019023CAC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	64	64	4	5/1/2021	4/22/2021	35		NO		X	
926105		A18019023DAC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	107	97	4	5/5/2021	4/22/2021	29		NO		X	
926106		A18019023DAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	177	165	4	5/18/2021	4/22/2021	27		NO		X	
926108		A18019022DBD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	67	48	4	4/29/2021	4/22/2021	37		NO		X	
926109		A18020030BDB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	88	88	2	5/14/2021	4/22/2021	21		NO		X	
926110		A18020030BDB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	50	47	2	5/15/2021	4/22/2021	20		NO		X	
926111		A18020030CBD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	52	50	2	5/15/2021	4/22/2021	19		NO		X	
926115		A18020030CBD	ARIZONA PUBLIC SERVICE COMPANY	OTHER	54	54	6	5/16/2021	4/22/2021	22		NO		X	
926116		A18020030CBD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	19	18	4	5/13/2021	4/22/2021	1		NO		X	
926120		A18020030CCB	ARIZONA PUBLIC SERVICE	MONITOR	27	19	4	5/3/2021	4/23/2021	4		NO		X	
926240		A18019013CCD	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	51	47	6	5/15/2021	5/14/2021	10		NO		X	
926398		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC. (ATTN: MICHAEL KEY)	MONITOR	35	36	2	6/15/2021	6/9/2021	24		NO		X	ADWR records sent to APS in 2021 Q3
926399		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: MICHAEL KEY)	MONITOR	35	36	2	6/15/2021	6/9/2021	24		NO		X	ADWR records sent to APS in 2021 Q3
926812		A18019024BBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	31	30	6	9/28/2021	9/5/2021	12		NO		X	
926813		A18019024BBA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	26	26	6	9/29/2021	9/5/2021	18		NO		X	
926814		A18019024BBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	125	69	3	9/30/2021	9/5/2021	62		NO		X	
926815		A18019024BBA	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	125	66	3	9/29/2021	9/5/2021	19		NO		X	
926816		A18019024BDC	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	65	65	4	10/5/2021	9/5/2021	23		NO		X	
927409		A18019025AAD	ARIZONA PUBLIC SERVICE	OTHER					12/10/2021			NO			
927464		A18019015DCA	LOVES TRAVEL STOPS & SOUNTRY STORE, INC	MONITOR				12/10/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927465		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/13/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927466		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/7/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927467		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/8/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927468		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/14/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
927469		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR				12/9/2021	12/28/2021			NO		X	Drill Records in ADWR Database as of Q1 2023
928235		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC (CHRIS WELDON	MONITOR	15	15	2	6/8/2022	6/1/2022	9		NO		X	ADWR Records sent to APS in 2022 Q4
928236		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC (CHRIS WELDON)	MONITOR	15	15	2	6/8/2022	6/1/2022	9		NO		X	ADWR Records sent to APS in 2022 Q4
928237		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	MONITOR	35	35	2	6/8/2022	6/1/2022	20		NO		X	ADWR Records sent to APS in 2022 Q4
929456		A18019026000	ARIZONA PUBLIC SERVICE (ATTN: RICHARD JACK) CHOLLA	OTHER	50			3/9/2023	3/8/2023	35		NO	A	X	Well Abandonment Completion Report filed on March 31st, 2023
929461		A18019023000	ARIZONA PUBLIC SERVICE (ATTN: RICHARD JACK) CHOLLA	OTHER					3/9/2023			NO			Drilling card has been filed and expires on 3/9/2024.
929527		A18019029000	AZTEC LAND & CATTLE COMPANY	OTHER	50	50	8	2/28/2023	3/28/2023			NO	A	X	Logs state these are all geotechnical borings that were abandoned after drilling
929528		A18019028000	AZTEC LAND & CATTLE COMPANY	OTHER	50	50	8	3/2/2023	3/28/2023			NO	A	X	Logs state these are all geotechnical borings that were abandoned after drilling
929529		A18019027000	AZTEC LAND & CATTLE COMPANY	OTHER				3/2/2023	3/28/2023			NO		X	Logs state these are all geotechnical borings that were abandoned after drilling
929530		A18019022000	AZTEC LAND & CATTLE COMPANY	OTHER	50	50	8		3/28/2023	26		NO	A	X	Logs state these are all geotechnical borings that were abandoned after drilling
929675		A17020007BAA	GREG LONG	EXEMPT	160	160	5		5/3/2023	42		NO		X	Drill Report submited to ADWR on 5/7/2024
929922		A18019016BDA	THRIFTWAY MARKETING CORPORATION	OTHER	27				7/10/2023			NO	A		Records sent to APS in Q2 2024
930125		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN CHRIS WELDON)	MONITOR	15	14	2	9/6/2023	8/24/2023	13		NO		X	Records sent to APS in Q2 2024
930126		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: CHRIS WELDON)	MONITOR	15	14	2	9/6/2023	8/24/2023			NO		X	Records sent to APS in Q2 2024
930127		A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: CHRIS WELDON)	MONITOR	15	14	2	9/6/2023	8/24/2023	11		NO		X	Records sent to APS in Q2 2024
930402		A18020030CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	55	48	1	10/25/2023	10/25/2023			NO		X	Records sent to APS in Q2 2024
930403		A18020030CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR	32	35	4	10/26/2023	10/25/2023			NO		X	Records sent to APS in Q2 2024
930404		A18020030CAB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					10/25/2023			NO		X	Records sent to APS in Q2 2024
930553		A18019013000	ARIZONA PUBLIC SERVICE COMPANY	OTHER					12/14/2023			NO			geotechnical boring that will be abandoned after drilling. Well completion report has not been filed with ADWR by the time the Q3 2024 review was completed. Authorization expires 12/14/2024.

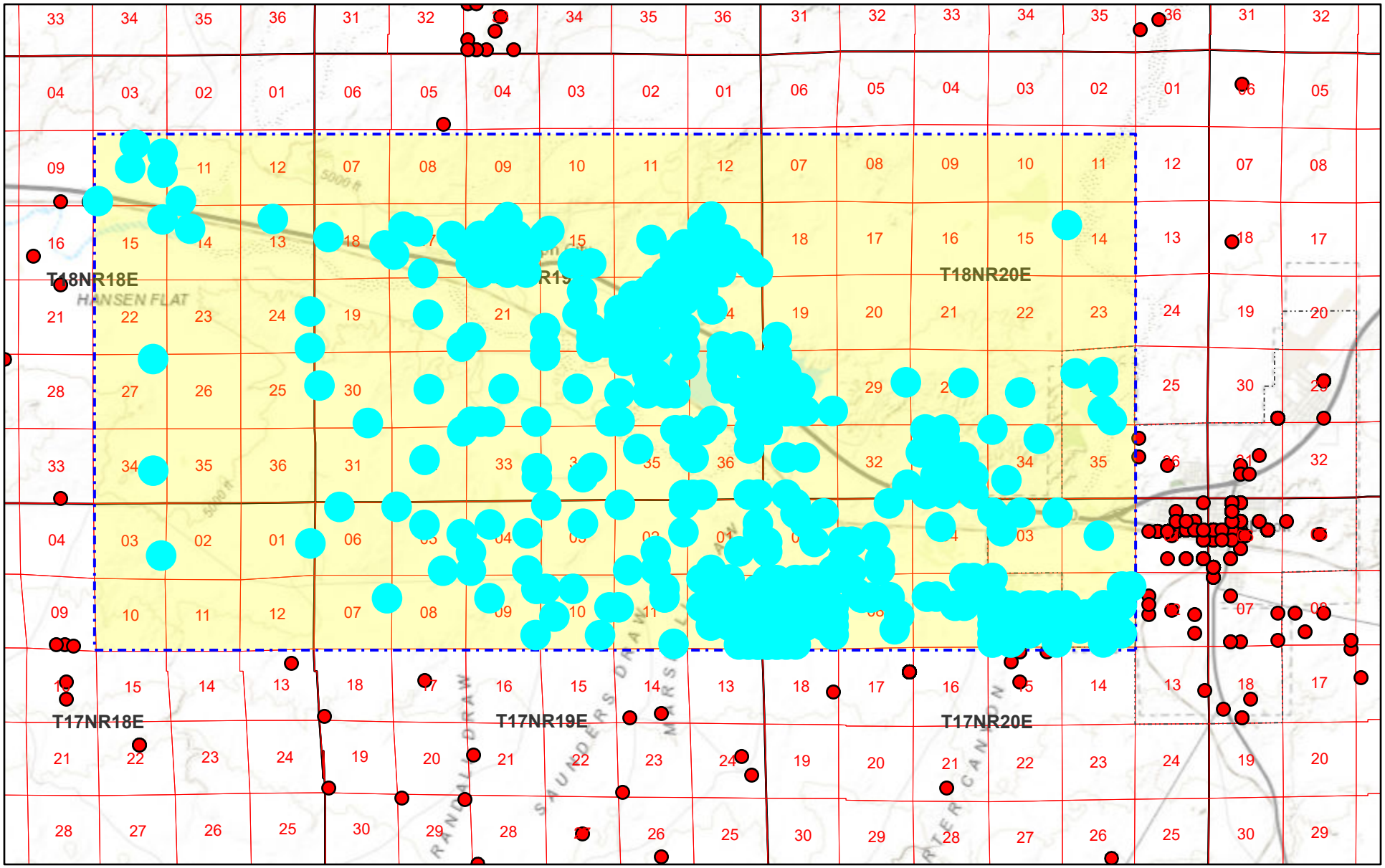
ADWR Well Registry Review Q3 2024

Registry No. (55-)	GWSI Site ID	Cadastral	Owner Name	Well Type	Well Depth (ft)	Casing Depth (ft)	Case Dia (in)	Drill Date	Applicaiton D	Water Level (ft)	Pump Capacity (GPM)	Pump Data Available	Completion Report	Log Received	WSP Notes
930554		A18019014000	ARIZONA PUBLIC SERVICE COMPANY	OTHER					12/14/2023			NO			geotechnical boring that will be abandoned after drilling. Well completion report has not been filed with ADWR by the time the Q3 2024 review was completed. Authorization expires 12/14/2024.
930555		A18019013CBB	ARIZONA PUBLIC SERVICE COMPANY	MONITOR					12/14/2023			NO			Drilling card issued for an environmental monitoring well. Well completion report has not been filed with ADWR by the time the Q3 2024 review was completed. Authorization expires 12/14/2024.
931199		A18019013CBC	ARIZONA PUBLIC SERVICE COMPANY	OTHER					5/31/2024			NO			NOI received on 5/31/2024. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Authorization expires 5/31/2025.
931200		A18019014DDB	ARIZONA PUBLIC SERVICE COMPANY	OTHER					5/31/2024			NO			NOI received on 5/31/2024. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Authorization expires 5/31/2025.

Notes:

New Well Registry No. as of Q3 2024

ADWR_Registry Review_07092024



July 9, 2024

Well_Registry

Section

County

City Boundaries

Township

1:144,448

0 1 2 4 mi

0 1.5 3 6 km

Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Arizona Department of Water Resources

ADWR Well Registry Review Q4 2024

Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report St	OBJECTID	x	y	WSP Comments
85087	A17020010BCD	TURLEY, BRENT,	EXEMPT	85	30	7		7/10/1980	18	300		254	-12268894.43	4148657.161	
85104	A17019012ADA	JOHNSON,M D	EXEMPT	200	68	6	X	9/23/1997	40	30	X	271	-12275398.37	4148844.851	
85257	A17020007DAB	MEIKLE & RUSSELL,	EXEMPT	175	58	6		9/23/1997	80	0		297	-12273629.4	4148361.874	
85748	A18019022ACC	RANDALL,D S	EXEMPT	365	365	8		9/23/1980	74	0		688	-12280081.05	4156543.95	
85794	A18020033BAD	ERKKILA,W O	EXEMPT	200	140	6		9/23/1997	100	0		811	-12270416.15	4153107.234	
86109	A18019023000	ARIZONA PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/28/1980	0	0		983	-12278218.17	4156421.966	
86110	A18019023000	ARIZONA PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/28/1980	0	0		984	-12278218.17	4156421.966	
86111	A18019023000	ARIZONA PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/28/1980	0	0		985	-12278218.17	4156421.966	
86112	A18019023000	ARIZONA PUBLIC SERVICE	NON-EXEMPT	0	0	0		10/28/1980	0	0		986	-12278218.17	4156421.966	
86141	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	88	88	14		9/23/1997	25	0	A	1012	-12279090.46	4156292.161	
86142	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	87	87	14		9/23/1997	25	0	A	1013	-12279090.46	4156292.161	
86143	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	90	90	14		9/23/1997	25	0	A	1014	-12279090.46	4156292.161	
86144	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	83	83	14		9/23/1997	25	0	A	1015	-12279090.46	4156292.161	
86145	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	80	80	14		9/23/1997	25	0	A	1016	-12279090.46	4156292.161	
86146	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	86	86	14		9/23/1997	25	0	A	1017	-12279090.46	4156292.161	
86147	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	85	85	14		9/23/1997	25	0	A	1018	-12279090.46	4156292.161	
86148	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	83	83	14		9/23/1997	25	0	A	1019	-12279090.46	4156292.161	
86149	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	90	90	14		9/23/1997	25	0	A	1020	-12279090.46	4156292.161	
86150	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	87	87	14		9/23/1997	25	0	A	1021	-12279090.46	4156292.161	
86151	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	63	63	14		9/23/1997	25	0	A	1022	-12279090.46	4156292.161	
86152	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	42	42	14		9/23/1997	0	0	A	1023	-12279090.46	4156292.161	
86153	A18019023CBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	45	45	14		9/23/1997	45	0	A	1107	-12279090.46	4156292.161	
86184	A18020033CAC	EGBERT,A	NON-EXEMPT	165	75	6		9/23/1997	65	0		1052	-12270662.31	4152123.682	
87057	A17020007BCA	SARAH V. HANCOCK	EXEMPT	175	60	6	X	7/31/1981	85	0	X	1768	-12274894.51	4148844.831	
204270	A18020034BBB	RANDY MURPH	NON-EXEMPT	240	100	8	X	7/7/2004	41			6277	-12269141.93	4153349.468	
205717	A18019022DDB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					10/28/2004				7305	-12279586.12	4155797.216	
205718	A18019022DCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR					10/28/2004				7306	-12279832.82	4155551.573	
205719	A18019023CCA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	47	45	4	X	10/28/2004	34			7307	-12278839.71	4155798.138	
205720	A18019023CCA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	47	45	2	X	10/28/2004	35		A	7308	-12278839.71	4155798.138	
207696	A17020007AAA	JACK R PICKETT JR	EXEMPT	175	60	6	X	5/3/2005	67	16	X	8772	-12273382.62	4149343.94	
207948	A17020005CCC	MARIBEL LUNA	EXEMPT	160	54	6	X	6/19/2005	46			11283	-12273133.43	4149596.629	
211590	A18020033BDD	RAYMOND H TURLEY	EXEMPT	250	137	7	X	3/23/2006	100		X	14461	-12270412.37	4152615.077	
212756	A18020033CDA	WILLIAM WIEGAND	EXEMPT	160	93	5	X	7/2/2006	70	13	X	15758	-12270407.07	4151878.108	
214839	A18019023CBD	KLEINFELDER, INC	SPCL - GEOTECHNICAL									17609	-12278840.07	4156045.497	App date 3/7/2007, denied app for specialty well
215327	A18018010DAA	JACKRABBIT TRADING POST	ENV - MONITOR	32	30	5	X	3/29/2007	19			16485	-12291263.79	4160200.412	
215328	A18018010DAA	JACKRABBIT TRADING POST	ENV - MONITOR	32	30	5	X	3/29/2007	19			16486	-12291263.79	4160200.412	
215329	A18018010DAA	JACKRABBIT TRADING POST	ENV - MONITOR	32	30	5	X	3/29/2007	19			16487	-12291263.79	4160200.412	
215330	A18018010DAA	JACKRABBIT TRADING POST	ENV - MONITOR	30	29	5	X	3/29/2007	19			16488	-12291263.79	4160200.412	
215331	A18018010DAA	JACKRABBIT TRADING POST	ENV - MONITOR	30	28	5	X	3/29/2007	19			16489	-12291263.79	4160200.412	
215540	A18019023CCA	ARIZONA PUBLIC SERVICE	ENV - MONITOR				X	4/25/2007				17257	-12278839.71	4155798.138	
215541	A18019023CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	50	50	5	X	4/25/2007	38			17258	-12278839.11	4155550.782	
217762	A18019016CCA	DELWIN OR EVELYN SOLOMON	NON-EXEMPT	400	400	8	X	5/7/2008	45	400	X	19477	-12282800.66	4157774.788	
220206	A18019023CDB	ARIZONA PUBLIC SERVICE	SPCL - CATHODIC PROTECTION					10/14/2010				22286	-12278589.93	4155800.059	
220297	A17020010DAA	CITY OF HOLBROOK	NON-EXEMPT	200	41	16	X	12/29/2010	20	1,400	X	21141	-12267417.44	4148415.35	
220453	A18019023C00	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	0	0	0	X	3/21/2011	42			21740	-12278715.61	4155922.17	
220454	A18019022DD0	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	0	0	0	X	3/20/2011	40			21741	-12279462.27	4155672.68	
221778	A18019023CDC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	62	60	4	X	10/11/2012	42			23910	-12278589.33	4155552.704	
221779	A18019023CDC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	62	60	4	X	10/11/2012	42			23911	-12278589.33	4155552.704	
221780	A18019023CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	62	60	4	X	10/14/2012	42			23912	-12278839.11	4155550.782	
226669	A18018010CCC	ANTONIO & CYNTHIA JAQUEZ	ENV - MONITOR					12/6/2016				27830	-12292986.37	4159441.134	
231033	A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMNENTAL QUALITY	ENV - MONITOR	30				8/25/2019			A	32726	-12292986.37	4159441.134	
231034	A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMNENTAL QUALITY	ENV - MONITOR	30				8/25/2019			A	32727	-12292986.37	4159441.134	
231035	A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMNENTAL QUALITY	ENV - MONITOR	30				8/25/2019			A	32728	-12292986.37	4159441.134	
231036	A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMNENTAL QUALITY	ENV - MONITOR					8/25/2019			A	32729	-12292986.37	4159441.134	
231037	A18018010CCC	ARIZONA DEPARTMENT OF ENVIRONMNENTAL QUALITY	ENV - MONITOR	30				8/25/2019			A	32730	-12292986.37	4159441.134	
232663	A17019003BBB	EL PASO NATURAL GAS, A KINDER MORGAN COMPANY	SPCL - CATHODIC PROTECTION	20	490	12	X	7/24/2020			A	34488	-12281034.31	4151328.73	
233176	A18019016DCB	THRIFTWAY MARKETING CORPORATION	ENV - MONITOR									33354	-12282060.93	4157778.419	App date 10/18/2020, marked as denied
233177	A18019016CDA	THRIFTWAY MARKETING CORPORATION	ENV - MONITOR									33355	-12282307.46	4157777.622	App date 10/18/2020, marked as denied
233178	A18019016CAD	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33356	-12282308.62	4158025.03	App date 10/18/2020, marked as denied
233179	A18019016ABC	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33357	-12282066.73	4159014.291	App date 10/18/2020
233180	A18019016ABC	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33358	-12282066.73	4159014.291	App date 10/18/2020, marked as denied
233181	A18019016ABC	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33359	-12282066.73	4159014.291	App date 10/18/2020. Denied 12/13/2020
233182	A18019016ABC	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33360	-12282066.73	4159014.291	App date 10/18/2020, marked as denied
233183	A18019016ABC	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33361	-12282066.73	4159014.291	App date 10/18/2020, marked as denied
233184	A18019016ABC	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33362	-12282066.73	4159014.291	App date 10/18/2020. Denied as of 12/23/2020

ADWR Well Registry Review Q4 2024

Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report Stu	OBJECTID	x	y	WSP Comments
233185	A18019016ABC	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33363	-12282066.73	4159014.291	App date 10/18/2020, Denied 12/13/2020
233186	A18019016CAD	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33364	-12282308.62	4158025.03	App date 10/18/2020, marked as denied
233187	A18019016ABC	THRIFTWAY MARKETING CORPORATION	ENV - VADOSE ZONE									33365	-12282066.73	4159014.291	App date 10/18/2020, marked as denied
233264	A17019012DAD	ARIZONA PUBLIC SERVICE	EXEMPT	390	79	7	X	10/29/2020	92			33566	-12275397.63	4148105.714	
233265	A18019028CCD	ARIZONA PUBLIC SERVICE	EXEMPT	247	148	7	X	10/29/2020	22			33837	-12282781.24	4153559.881	
233713	A18019016DCB	THRIFTWAY MARKETING CORPORATION	ENV - MONITOR	28	28	2	X	1/26/2021				35527	-12282060.93	4157778.419	ADWR records sent to APS in 2021 Q4
233714	A18019016CDA	THRIFTWAY MARKETING CORPORATION	ENV - MONITOR	28	28	2	X	1/26/2021				35528	-12282307.46	4157777.622	ADWR records sent to APS in 2022 Q1 after expanded area of review
236622	A17020011AAC	ALEX W & JENNIE B HATCH	EXEMPT				X	3/27/2022				39070	-12265689.08	4149164.973	Drill authority issued 4/13/22 - Updated Records were added to ADWR as of 7/06/22 Well Review. Sent to APS
238560	A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	111	99	2	X	3/29/2023	22			40463	-12274635.83	4154335.308	
238561	A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	65	64	4	X	3/29/2023	18			40464	-12274635.83	4154335.308	
238562	A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	113	112	4	X	3/29/2023	24			40465	-12274635.83	4154335.308	
238563	A18020030CAB	ARIZONA PUBLIC SERVICE	EXEMPT	67	66	4	X	3/29/2023	20			40466	-12274635.83	4154335.308	
238564	A18020030CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	113	110	2	X	3/29/2023	27			40467	-12274635.83	4154335.308	
238565	A18020030CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	100	96	2	X	3/29/2023	22			40544	-12274635.83	4154335.308	
238566	A18020030CAB	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	112			X	3/29/2023			A	40545	-12274635.83	4154335.308	
239280	A18019016DBC	THRIFTYWAY MARKETING CORPORTION	SPCL - GEOTECHNICAL	27				7/10/2023			A	40103	-12282062.09	4158025.827	
239455	A18019016DBC	THRIFTWAY MARKETING CORPORATION	SPCL - GEOTECHNICAL					8/3/2023				40809	-12282062.09	4158025.827	
241797	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43608	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241798	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43688	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241799	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43689	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241800	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43690	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241801	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43691	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241802	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43692	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241803	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43693	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241804	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43694	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241805	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/26/2024				43695	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241806	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43696	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241808	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/26/2024				43698	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241809	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43699	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241810	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43700	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241811	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43701	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241812	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43702	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241813	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43703	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241814	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43704	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241815	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43705	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241816	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43706	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/3/2024.
241817	A18020030BCB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43707	-12275130.06	4154823.803	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/3/2024.
241818	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43708	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241819	A18020030CBD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43709	-12274882.89	4154084.913	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241820	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43710	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/9/2024.
241821	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43711	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/9/2024.
241822	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43712	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/10/2024.
241823	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43713	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/9/2024.
241824	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43792	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report Sta	OBJECTID	x	y	WSP Comments
241825	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43793	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241826	A18020030BCD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43794	-12274882.7	4154579.554	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241827	A18020030BCA	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43795	-12274882.72	4154826.884	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241828	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43796	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241829	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43797	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241830	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43798	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241831	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43799	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241832	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43800	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241833	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43801	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241834	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43802	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241835	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43803	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241836	A18020030BDC	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43804	-12274635.85	4154582.633	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241837	A18020030CBA	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43805	-12274882.67	4154332.23	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241838	A18020030CAC	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43806	-12274635.45	4154087.987	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241839	A18020030CAC	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43807	-12274635.45	4154087.987	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024
241840	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43808	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/9/2024
241841	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43809	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241842	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43810	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241843	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43811	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241844	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43812	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/1/2024.
241845	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43813	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/3/2024.
241846	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43814	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/3/2024.
241847	A18020030CAB	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43815	-12274635.83	4154335.308	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/3/2024.
241848	A18020030CAD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43816	-12274388.26	4154089.833	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/9/2024.
241849	A18020030CAD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43817	-12274388.26	4154089.833	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/9/2024.
241850	A18020030CAD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43899	-12274388.26	4154089.833	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/9/2024.
241851	A18020030CAD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43900	-12274388.26	4154089.833	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/2/2024.
241852	A18020030CAD	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43901	-12274388.26	4154089.833	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/9/2024.
241853	A18020030CAC	ARIZONA PUBLIC SERVICES	EXEMPT					9/25/2024				43902	-12274635.45	4154087.987	Well has not been drilled. NOI, Drilling Authority and Varience Request has been received by ADWR as of 10/10/2024.
482933	A18019028CCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	220	148	7	X	7/22/2020	22			44709	-12282781.24	4153559.881	
482992	A18020030CBD	ARIZONA PUBLIC SERVICE	SPCL - OTHER	51	46	1		4/28/2021			A	44900	-12274882.89	4154084.913	
482994	A18020030BDB	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	76	76	1		4/28/2021			A	44902	-12274635.86	4154831.187	
482995	A18020030BDB	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	56	55	1		4/28/2021			A	44903	-12274635.86	4154831.187	
500636	A17020004BD0	SCHADE,J	NON-EXEMPT	250	70	8	X	9/23/1997	20	0	X	46769	-12270523.74	4150760.246	
500712	A17020007CBD	NEWMAN AND JESSICA JOHN	EXEMPT	215	80	5	X	8/16/1981	0	0	C	45789	-12274892.69	4148106.91	
500726	A17020007CBA	JOHN HARDY	EXEMPT	195	80	5	X	8/17/1981	49	75	X	45865	-12274893.34	4148352.878	
501812	A17020010BDC	SHUMWAY,D	EXEMPT	100	39	6	X	1/18/1982	24	0	C	46112	-12268647.74	4148657.66	
502100	A18019016DDC	BARRETT,W W	EXEMPT	280	245	5	X	2/22/1982	35	35	X	47352	-12281566.82	4157535.044	
502294	A17020007ABB	ROBERT L. AND SYLVIA A. VARIAN	EXEMPT	270	229	6	X	3/15/1982	20	0	X	48166	-12274138.97	4149339.785	
502410	A17020010CCC	FERGUSON,M E	NON-EXEMPT	0	0	0		3/18/1982	0	0		47287	-1226914.14	4147670.364	
502455	A18019016DDC	RANDALL,D	NON-EXEMPT	0	0	0		3/24/1982	0	0		47456	-12281566.82	4157535.044	
502730	A17020007BBC	GERALD F BRIGGS	EXEMPT	160	57	5	X	4/29/1982	90	0	C	47291	-12275147.47	4149088.996	
503829	A17020010CCB	FRED & GAIL JOE	EXEMPT	200	200	0	X	8/25/1982	60	0	X	48997	-12269140.8	4147916.315	
503847	A17020007CCC	EDWIN & BRENDA BURROUGHS	EXEMPT	200	79	8	X	8/29/1982	37	0	C	49077	-12275145.27	4147613.179	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report St	OBJECTID	x	y	WSP Comments
503848	A17020007BBB	EDWIN & BRENDA BURROUGHS	EXEMPT	200	79	8	X	8/29/1982	51	0	C	49078	-12275147.76	4149334.984	
503984	A18020033DAC	SCHADE,J	EXEMPT	200	201	6	X	9/20/1982	90	0	X	49589	-12269647.84	4152121.91	
504944	A17019012DCA	JANKA,D	EXEMPT	200	70	7	X	3/8/1983	57	0	C	50860	-12275897.82	4147867.067	
505119	A18019016DDC	RANDALL, A BLAINE,	NON-EXEMPT	450	280	12	X	4/4/1983	40	800	X	50225	-12281566.82	4157535.044	
505356	A17020007BDD	MYERS, JOHN JR,W	NON-EXEMPT	0	0	0		5/9/1983	0	0		49901	-12274388.64	4148602.47	
505455	A17019012ADC	ALLEN,C G	EXEMPT	200	69	6	X	5/22/1983	70	24	X	50246	-12275648.27	4148603.146	
505634	A17020010ACC	HOLBROOK, TOWN OF,	NON-EXEMPT	105	87	12	X	6/13/1983	13	1,450	X	49677	-12268154.95	4148659.869	
506364	A18019023AAA	ARIZONA PUBLIC SERVICE	EXEMPT	108	104	5	X	9/20/1983	22	0	N	51271	-12277349.12	4157296.313	
506365	A18019023AAA	ARIZONA PUBLIC SERVICE	EXEMPT	54	54	5	X	9/20/1983	20	0	N	51272	-12277349.12	4157296.313	
506366	A18019024BBD	ARIZONA PUBLIC SERVICE	EXEMPT	118	65	5	X	9/20/1983	26	0	A	51273	-12276856.14	4157050.298	
506367	A18019013DBD	ARIZONA PUBLIC SERVICE	EXEMPT	93	84	5	X	9/20/1983	45	0	N	51274	-12275887.95	4158041.442	
506368	A18019013CDD	ARIZONA PUBLIC SERVICE	EXEMPT	93	75	5	X	9/20/1983	32	0	N	51275	-12276372.12	4157546.482	
506369	A18019023AAC	ARIZONA PUBLIC SERVICE	EXEMPT	39	0	0	X	9/20/1983	0	0	N	51276	-12277596.8	4157045.796	
506370	A18019023ADA	ARIZONA PUBLIC SERVICE	EXEMPT	159	58	5	X	9/20/1983	29	0	N	51277	-12277346.66	4156800.308	
506371	A18019023DAB	ARIZONA PUBLIC SERVICE	EXEMPT	54	47	5	X	9/20/1983	37	0	N	51278	-12277593.37	4156303.652	
506372	A18019023ACA	ARIZONA PUBLIC SERVICE	EXEMPT	94	65	5	X	9/20/1983	32	0	N	51279	-12277844.94	4156796.506	
506586	A18019023ABB	ARIZONA PUBLIC SERVICE	SPCL - EXPLORATION	58	58	5	X	10/31/1983	36	0	N	52110	-12278095.78	4157290.596	
506587	A18020030CBD	ARIZONA PUBLIC SERVICE	SPCL - EXPLORATION	40	35	5	X	10/31/1983	3	0	A	52111	-12274882.89	4154084.913	
507508	A17020007BDA	PENROD, JOHNNY,E	NON-EXEMPT	195	70	7	X	3/19/1984	49	14	X	53203	-12274389.53	4148847.227	
508359	A17020007AAA	JANSEN,H	EXEMPT	0	0	0		6/11/1984	0	0		52612	-12273382.62	4149343.94	
509947	A17019012BAC	BELSHE,M T	EXEMPT	166	166	6	X	12/19/1984	90	28	X	55196	-12276648.81	4149114.579	
510154	A17020010CBB	BISSONNETTE & SMITH	EXEMPT	98	40	6	X	1/27/1985	33	15	X	56006	-12269140.61	4148409.46	
511029	A17020007CBA	TRACY OR JANELLA PERKINS	EXEMPT	195	80	5	X	5/1/1985	60	35	X	56863	-12274893.34	4148352.878	
511169	A18019023B00	HARCO CORP,	SPCL - EXPLORATION	205	205	10	X	5/16/1985	0	0	N	56150	-12278717.49	4156914.103	
511932	A17020007ACA	GROSS,K H	EXEMPT	0	0	0		7/29/1985	0	0		56596	-12273884.66	4148850.826	
513840	A17020007DDA	THOMAS HENSON	NON-EXEMPT	170	50	6	X	3/27/1986	90	27	X	58937	-12273374.15	4147874.163	
514992	A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	250	80	8	X	7/24/1986	130	245	X	60834	-12274388.64	4148602.47	
515770	A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	200	80	0	X	10/6/1986	54	3	X	61210	-12274388.64	4148602.47	
516042	A17020007DAD	JANSEN, CORNELIS,	NON-EXEMPT	175	50	6	X	11/13/1986	42	20	X	61053	-12273375.63	4148118.909	
518211	A17020007BBB	TERMAIN, DEBORA,L	EXEMPT - DOMESTIC STOCK	200	40	6	X	6/18/1987	39	0	C	63165	-12275147.76	4149334.984	
518943	A18019015BC0	EL PASO NATURAL GAS, A KINDER MORGAN COMPANY	SPCL - EXPLORATION	500	190	8	X	9/1/1987	0	0	N	64735	-12280953.5	4158646.652	
519638	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	12	10	1	X	11/12/1987	0	0	N	64927	-12278339.55	4155554.62	
519639	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	12	10	1	X	11/12/1987	4	0	N	64928	-12278339.55	4155554.62	
519640	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	12	10	1	X	11/12/1987	4	0	N	64929	-12278339.55	4155554.62	
519760	A17020007ABD	MEGGAN P MURPH	EXEMPT	150	32	6	X	11/30/1987	35	20	X	64140	-12273885.78	4149095.59	
520217	A17020007CDD	YAZZIE, ALFRED,	EXEMPT	180	60	6	X	2/8/1988	60	0	C	65841	-12274385.24	4147619.823	
521468	A17019012BBA	MAXWELL, MYRON,	EXEMPT - DOMESTIC STOCK	200	67	6	X	6/13/1988	75	12	X	65668	-12276898.83	4149367.256	
524566	A18019023000	ARIZONA PUBLIC SERVICE	SPCL - EXPLORATION	185	40	6	X	5/16/1989	0	0	N	69782	-12278218.17	4156421.966	
527034	A17020007ABA	CHRISTOPHER & SHERRA DUNSMORE	EXEMPT	150	30	6	X	2/1/1990	45	0	C	71688	-12273886.77	4149341.583	
527039	A17019012DDD	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71693	-12275397.17	4147613.798	
527040	A17019012DDD	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71694	-12275397.17	4147613.798	
527041	A17019012DDD	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71756	-12275397.17	4147613.798	
527042	A17019012DDD	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71757	-12275397.17	4147613.798	
527043	A17019012DDD	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71758	-12275397.17	4147613.798	
527044	A17019012DDD	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71759	-12275397.17	4147613.798	
527045	A17019012DDD	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71760	-12275397.17	4147613.798	
527046	A17019012DDC	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71761	-12275647.47	4147616.847	
527047	A17019012DDC	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71762	-12275647.47	4147616.847	
527048	A17019012DDC	MYERS, JOHN JR,W	EXEMPT - DOMESTIC STOCK	0	0	0		1/30/1990	0	0		71763	-12275647.47	4147616.847	
527278	A18020026DCD	HOLBROOK, TOWN OF,	NON-EXEMPT	0	0	0		3/1/1990	0	0	N	72581	-12265957.42	4153601.845	
527279	A18020026BCA	HOLBROOK, TOWN OF,	NON-EXEMPT	0	0	0		3/1/1990	0	0	N	72582	-12266924.65	4154847.509	
527280	A18020026ACC	HOLBROOK, TOWN OF,	NON-EXEMPT	78	78	7	X	3/1/1990	17	0	N	72583	-12266195.47	4154626.102	
527281	A18020026ACB	HOLBROOK, TOWN OF,	NON-EXEMPT	300	300	6	X	3/1/1990	229	0	N	72584	-12266194.63	4154881.995	
527282	A18020026DCB	HOLBROOK, TOWN OF,	NON-EXEMPT	42	42	6	X	3/1/1990	0	0	N	72585	-12266199.11	4153857.243	
528697	A18020034ABD	JENNINGS, MOLLIE,	NON-EXEMPT	460	395	0	X	7/8/1990	254	300	X	72984	-12267907.22	4153104.625	
529604	A18019016DCB	RADIAN CORP,	ENV - MONITOR OR PIEZOMETER	18	10	2	X	5/19/1991	13	0	N	73986	-12282060.93	4157778.419	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report Sta	OBJECTID	x	y	WSP Comments
529605	A18019016DCB	RADIAN CORP,	ENV - MONITOR OR PIEZOMETER	15	10	2	X	5/19/1991	13	0	N	73987	-12282060.93	4157778.419	
529606	A18019016DCC	RADIAN CORP,	ENV - MONITOR OR PIEZOMETER	25	20	2	X	5/19/1991	13	0	N	73988	-12282059.76	4157532.241	
529607	A18019016DCA	RADIAN CORP,	ENV - MONITOR OR PIEZOMETER	15	10	2	X	5/19/1991	13	0	N	73989	-12281814.39	4157780.435	
531124	A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	275	20	14	X	3/6/1991	12	750	X	76072	-12268647.74	4148657.66	
533811	A18019013CCA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	259	258	5	X	11/25/1991	114	0	N	78918	-12276864.27	4157792.524	
533812	A18019013CCA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	293	292	5	X	11/25/1991	83	0	N	78919	-12276864.27	4157792.524	
533813	A18019023AAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	280	279	5	X	11/25/1991	80	0	N	78920	-12277349.12	4157296.313	
533814	A18019013CCA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	62	62	5	X	11/25/1991	4	0	N	78921	-12276864.27	4157792.524	
533815	A18019013CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		11/25/1991	0	0	N	78922	-12276861.39	4157545.109	
533816	A18019023AAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	240	238	5	X	11/25/1991	80	0	N	78923	-12277349.12	4157296.313	
533817	A18020030CBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	141	140	5	X	11/25/1991	30	0	N	78924	-12274882.67	4154332.23	
533818	A18019013CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		11/25/1991	0	0	N	78925	-12276861.39	4157545.109	
533819	A18019013CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		11/25/1991	0	0	N	78926	-12276861.39	4157545.109	
533820	A18020030CAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	96	20	5	X	11/25/1991	30	0	N	78927	-12274388.39	4154338.377	
534511	A17020011BCC	JEFFERS, MARIA,	NON-EXEMPT	0	0	0		2/19/1992	0	0		77774	-12267168.17	4148662.988	
535278	A18020029ADD	BRIMHALL SAND & ROCK,	NON-EXEMPT	420	420	10	X	5/11/1992	251	0	C	79489	-12271449.16	4154610.082	
536055	A18020030CBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	40	18	4	X	7/15/1992	33	0	N	81271	-12274882.67	4154332.23	
536056	A18020030CBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	21	0	0	X	7/15/1992	20	0	N	81272	-12274882.67	4154332.23	
536057	A18020030CBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	51	0	0	X	7/15/1992	50	0	N	81273	-12274882.67	4154332.23	
536058	A18020030CBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	30	0	0	X	7/15/1992	30	0	N	81274	-12274882.67	4154332.23	
536059	A18020030CBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	40	0	0	X	7/15/1992	33	0	N	81275	-12274882.67	4154332.23	
537495	A18020031CDC	WESTOVER, BOYD,L	EXEMPT	125	125	0	X	11/30/1992	6	0	C	81769	-12274639.49	4151617.577	
538790	A17020007CDC	MYERS, JOHN JR,W	NON-EXEMPT	200	200	5	X	4/14/1993	0	40	X	83045	-12274638.26	4147618.02	
539095	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	X	5/11/1993	5	0	C	82978	-12276861.39	4157545.109	
539096	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	X	5/11/1993	5	0	C	82979	-12276861.39	4157545.109	
539097	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	X	5/11/1993	5	0	C	82980	-12276861.39	4157545.109	
539098	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	X	5/11/1993	5	0	C	82981	-12276861.39	4157545.109	
539099	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	X	5/11/1993	5	0	C	82982	-12276861.39	4157545.109	
539100	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	20	0	0	X	5/11/1993	5	0	C	82983	-12276861.39	4157545.109	
539101	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	12	0	0	X	5/11/1993	1	0	C	82984	-12276861.39	4157545.109	
539102	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	21	0	0	X	5/11/1993	5	0	C	82985	-12276861.39	4157545.109	
539103	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	X	5/11/1993	1	0	A	82986	-12274882.89	4154084.913	
539104	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	40	20	5	X	5/11/1993	1	0	A	82987	-12274882.89	4154084.913	
539105	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		82988	-12274882.89	4154084.913	
539106	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		82989	-12274882.89	4154084.913	
539107	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83052	-12274882.89	4154084.913	
539108	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83053	-12274882.89	4154084.913	
539109	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83054	-12274882.89	4154084.913	
539110	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83055	-12274882.89	4154084.913	
539111	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83056	-12274882.89	4154084.913	
539112	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83057	-12274882.89	4154084.913	
539113	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83058	-12274882.89	4154084.913	
539114	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83059	-12274882.89	4154084.913	
539115	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83060	-12274882.89	4154084.913	
539116	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83061	-12274882.89	4154084.913	
539117	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83062	-12274882.89	4154084.913	
539118	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		5/11/1993	0	0		83063	-12274882.89	4154084.913	
539119	A18019013CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	20	10	2	X	5/11/1993	1	0	N	83064	-12276861.39	4157545.109	
539120	A18019013CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	20	10	2	X	5/11/1993	1	0	N	83065	-12276861.39	4157545.109	
539121	A18019013CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	20	10	2	X	5/11/1993	1	0	N	83066	-12276861.39	4157545.109	
539225	A17020007DAA	GARY AND MELISSA HUNT	EXEMPT	174	54	5	X	5/17/1993	74	30	X	83479	-12273376.86	4148363.658	
539859	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		7/11/1993	0	0		83263	-12276861.39	4157545.109	
539860	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	40	40	5	X	7/11/1993	25	0		83264	-12276861.39	4157545.109	
539861	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	40	40	5	X	7/11/1993	25	0		83265	-12276861.39	4157545.109	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report St	OBJECTID	x	y	WSP Comments
539862	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	40	40	5	X	7/11/1993	25	0		83266	-12276861.39	4157545.109	
539863	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	35	35	5	X	7/11/1993	25	0		83267	-12276861.39	4157545.109	
539864	A18019013CCD	ARIZONA PUBLIC SERVICE	EXEMPT	40	40	5	X	7/11/1993	25	0		83268	-12276861.39	4157545.109	
539986	A18020031BBB	HUNT, BOYCE,B	EXEMPT	130	30	61	X	7/15/1993	105	0	C	85197	-12275132.05	4153342.371	
540040	A18019016DCC	RADIAN CORP,	ENV - MONITOR OR PIEZOMETER	20	20	4	X	8/16/1993	14	0	N	84155	-12282059.76	4157532.241	
540041	A18019016DCC	RADIAN CORP,	ENV - MONITOR OR PIEZOMETER	20	20	4	X	8/16/1993	15	0	N	84156	-12282059.76	4157532.241	
540042	A18019016DCA	RADIAN CORP,	ENV - MONITOR OR PIEZOMETER	20	20	4	X	8/16/1993	13	0	N	84157	-12281814.39	4157780.435	
540668	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	45	45	4	X	9/14/1993	23	0	N	85325	-12278339.55	4155554.62	
540669	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		9/14/1993	0	0	N	85326	-12278339.55	4155554.62	
540670	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		9/14/1993	0	0	N	85327	-12278339.55	4155554.62	
540671	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		9/14/1993	0	0	N	85389	-12278339.55	4155554.62	
540672	A18019022DBD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	45	45	4	X	9/14/1993	18	0	A	85390	-12279833.32	4156047.51	
541134	A18020031ACC	KEMPTON, CARL,	EXEMPT - DOMESTIC STOCK	160	100	6	X	10/19/1993	115	0	C	84705	-12274139.94	4152605.419	
541684	A18019015BCC	EL PASO NATURAL GAS, A KINDER MORGAN COMPANY	SPCL - EXPLORATION	500	180	8	X	12/2/1993	0	0	N	85465	-12281076.62	4158523.783	
541711	A18020027CAA	DALE MCKINNON	NON-EXEMPT	460	320	8	X	12/5/1993	207	0	C	85613	-12268402.05	4154338.977	
546245	A18019023CDA	ARIZONA PUBLIC SERVICE	SPCL - EXPLORATION	187	187	6	X	10/27/1994	0	0	N	97899	-12278340.26	4155801.976	
546582	A17020010CBB	KENNEVINA LEE	EXEMPT	250	250	6	X	11/13/1994	57	0	C	97926	-12269140.61	4148409.46	
547033	A18019023CDD	ARIZONA PUBLIC SERVICE	SPCL - EXPLORATION	25	0	0	X	12/29/1994	25	0	N	94656	-12278339.55	4155554.62	
547034	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	46	45	4	X	12/29/1994	25	0	N	94657	-12278339.55	4155554.62	
547035	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	46	45	4	X	12/29/1994	25	0	A	94658	-12278339.55	4155554.62	
547036	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	46	45	4	X	12/29/1994	25	0	A	94659	-12278339.55	4155554.62	
547037	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		12/29/1994	0	0	N	94660	-12278339.55	4155554.62	
547038	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		12/29/1994	0	0	N	94661	-12278339.55	4155554.62	
547039	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		12/29/1994	0	0	N	94662	-12278339.55	4155554.62	
547253	A18020030000	ARIZONA PUBLIC SERVICE	SPCL - EXPLORATION	37	0	0	X	6/1/1995	0	0	N	97955	-12274262.53	4154463.555	
547254	A18019025000	ARIZONA PUBLIC SERVICE	SPCL - EXPLORATION	50	0	0	X	6/1/1995	0	0	N	97956	-12276236.81	4154449.855	
548409	A17020007BAC	KEVIN DIPIAZZA	EXEMPT	145	54	6	X	3/5/1995	60	18	X	94737	-12274642.72	4149091.406	
552166	A18020033BBA	CLINTON HADDOX	EXEMPT	0	0	0		9/17/1995	0	0		89753	-12270930.02	4153353.609	
552869	A17020005CBB	LOPEZ, ODELL,	EXEMPT	100	41	6	X	10/15/1995	34	20	X	90129	-12273136.41	4150357.911	
553267	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	49	49	5	X	11/29/1995	2	25	X	91132	-12274882.89	4154084.913	
553268	A18020030CCB	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	50	50	4		11/29/1995	0	0	A	91133	-12275130.65	4153836.971	
553269	A18020030CCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	45	45	4	X	11/29/1995	9	0	N	91134	-12275130.86	4153589.665	
553270	A18019036AAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	0	0	0		11/29/1995	0	0	N	91135	-12275624.67	4153341.076	
553271	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	45	20	4	X	11/29/1995	29	0	N	91136	-12278339.55	4155554.62	
558134	A17020010ADD	FISH BROS, LLC	NON-EXEMPT	200	42	12	X	6/5/1996	5	0	X	109124	-12267415.11	4148662.525	
558423	A17020010CCC	FERGUSON, MICHAEL,	NON-EXEMPT	205	20	6	X	6/16/1996	57	0	C	108478	-1269141.14	4147670.364	
560489	A18020030CCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR OR PIEZOMETER	30	0	4	X	11/25/1996	29	0	N	108604	-12275130.86	4153589.665	
562218	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR OR PIEZOMETER	0	0	0		4/21/1997	0	0	N	108376	-12292986.37	4159441.134	
562329	A18018010CCC	JAQUEZ JR, ANTONIO,	ENV - MONITOR OR PIEZOMETER	0	0	0		4/21/1997	0	0	A	110033	-12292986.37	4159441.134	
562330	A18018010CCC	JAQUEZ JR, ANTONIO,	ENV - MONITOR OR PIEZOMETER	0	0	0		4/21/1997	0	0	A	110034	-12292986.37	4159441.134	
562331	A18018010CCC	JAQUEZ JR, ANTONIO,	ENV - MONITOR OR PIEZOMETER	0	0	0		4/21/1997	0	0	A	110035	-12292986.37	4159441.134	
562332	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR	25	5	2	X	4/21/1997	15	0	A	110036	-12292986.37	4159441.134	
562333	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR	25	5	4	X	4/21/1997	15	0	A	110037	-12292986.37	4159441.134	
566113	A17020005CBA	MARCELINO & ROSA PONCE	EXEMPT	125	52	8	X	12/1/1997	41			105519	-12272888.08	4150360.939	
566237	A18019018BCD	DELWIN OR EVELYN SOLOMON	EXEMPT	400	155	10	X	12/3/1997	14			101437	-12286840.06	4158480.658	
566723	A17020007CDB	ARTHUR OR MAJORI MAHER	EXEMPT	205	47	7	X	1/26/1998	80		X	102586	-12274638.9	4147863.978	
567466	A17020005CCB	FERNANDO AND ROBIN LEDEZMA	EXEMPT	130	431	6	X	2/26/1998	50			103352	-12273134.34	4149849.975	
568830	A17020010CBB	ALICE JOHNSON	EXEMPT	160	51	6	X	6/2/1998	60			105652	-12269140.61	4148409.46	
569370	A17019003BBB	EL PASO NATURAL GAS, A KINDER MORGAN COMPANY	SPCL - CATHODIC PROTECTION	500	130	8	X	6/18/1998			A	119172	-12281034.31	4151328.73	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report St	OBJECTID	x	y	WSP Comments
570836	A17019010CBA	LUCAS AND GRAVES DEVELOPMENT, INC	EXEMPT					9/13/1998				123219	-12280818.8	4148364.245	
573258	A18018010ABC	THE CAROL A SHAFF REVOCABLE TRUST	EXEMPT	280	233	8	X	2/7/1999	83			122575	-12292004.82	4160950.807	
573582	A17020006BAA	BOYD L WESTOVER	EXEMPT					3/3/1999				121034	-12274391.88	4151368.489	
577823	A17020007CDB	JOHN OR JOANN MYERS	EXEMPT					1/26/1998				117747	-12274638.9	4147863.978	
578122	A17020007BAC	JOHNNY E PENROD	EXEMPT					11/4/1999				116168	-12274642.72	4149091.406	
578284	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112229	-12292986.37	4159441.134	
578285	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112230	-12292986.37	4159441.134	
578286	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112231	-12292986.37	4159441.134	
578287	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112232	-12292986.37	4159441.134	
578288	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112233	-12292986.37	4159441.134	
578289	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112234	-12292986.37	4159441.134	
578290	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112235	-12292986.37	4159441.134	
578291	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112236	-12292986.37	4159441.134	
578292	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112237	-12292986.37	4159441.134	
578293	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112613	-12292986.37	4159441.134	
578294	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112614	-12292986.37	4159441.134	
578295	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112615	-12292986.37	4159441.134	
578296	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112616	-12292986.37	4159441.134	
578297	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112617	-12292986.37	4159441.134	
578298	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112618	-12292986.37	4159441.134	
578299	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112619	-12292986.37	4159441.134	
578300	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112620	-12292986.37	4159441.134	
578301	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112621	-12292986.37	4159441.134	
578302	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112622	-12292986.37	4159441.134	
578303	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112623	-12292986.37	4159441.134	
578304	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112624	-12292986.37	4159441.134	
578305	A18018010CCC	ANTONIO JAQUEZ JR	ENV - MONITOR					11/18/1999				112625	-12292986.37	4159441.134	
579540	A18020030CAC	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	40	30	2	X	2/7/2000	42			113087	-12274635.45	4154087.987	
579541	A18020030CAC	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	60	50	2	X	2/7/2000	27			113088	-12274635.45	4154087.987	
579542	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	62	52	2	X	2/7/2000				113089	-12274882.89	4154084.913	
579543	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	85	75	2	X	2/7/2000	25			113090	-12274882.89	4154084.913	
579544	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	85	75	2	X	2/7/2000	37			113091	-12274882.89	4154084.913	
579545	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	104	90	2	X	2/7/2000	90			113092	-12274882.89	4154084.913	
579546	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	83	73	2	X	2/7/2000	46			113093	-12274882.89	4154084.913	
580114	A17020007BCC	BRYANT PETERSEN	NON-EXEMPT	205	55	6	X	3/19/2000	621	27	X	115516	-12275146.78	4148597.036	
580185	A17020006BAA	BOYD L WESTOVER	EXEMPT	173	38	6	X	3/15/2000	26			116707	-12274391.88	4151368.489	
582885	A18020030CAC	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER					8/14/2000				133835	-12274635.45	4154087.987	
582886	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER					8/14/2000				133836	-12274882.89	4154084.913	
582887	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER					8/14/2000				133837	-12274882.89	4154084.913	
582888	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER					8/14/2000				133838	-12274882.89	4154084.913	
583834	A17020007BAA	KENNETH H EDINGER	EXEMPT	160	60	6	X	10/10/2000	49		X	136258	-12274391.16	4149339.205	
585020	A17020007CCD	JOHN OR JOANN MYERS	EXEMPT	208	60	5	X	1/1/2001	78		X	135934	-12274891.4	4147614.988	
588000	A18019016CAC	HARTLEY TURLEY	SPCL - GEOTECHNICAL					7/18/2001				131388	-12282555.41	4158023.005	
588012	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR	45	45	4	X	7/18/2001	26			131775	-12282555.41	4158023.005	
588013	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR	40	40	4	X	7/18/2001	9		A	131776	-12282555.41	4158023.005	
588014	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR					7/18/2001			A	131777	-12282555.41	4158023.005	
588015	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR					7/18/2001			A	131778	-12282555.41	4158023.005	
588016	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR					7/18/2001			A	131779	-12282555.41	4158023.005	
588017	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR					7/18/2001				131780	-12282555.41	4158023.005	
588018	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR					7/18/2001				131781	-12282555.41	4158023.005	
588019	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR					7/18/2001				131782	-12282555.41	4158023.005	
588020	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR					7/18/2001				131783	-12282555.41	4158023.005	
588021	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR					7/18/2001				131784	-12282555.41	4158023.005	
590313	A17020010CBB	ANTHONY AND CARLA JEWETT	EXEMPT	200	60		X	12/23/2001	74			129940	-12269140.61	4148409.46	
590553	A17020007CBB	DUANE RAY CHARLEY	EXEMPT	220	55	5	X	1/13/2002	81		X	127205	-12275146.37	4148351.064	
590554	A17020007CBC	ROBERT MCLAWS	EXEMPT	215	50	5	X	1/13/2002	86		X	127206	-12275145.96	4148105.097	
592674	A17020007BAA	BOBBIE C WRIGHT	EXEMPT	205	45	6	X	5/19/2002	57			128516	-12274391.16	4149339.205	
592774	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR	30				5/27/2002			A	130101	-12292986.37	4159441.134	
592775	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR	25				5/27/2002			A	130102	-12292986.37	4159441.134	
592776	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR	25				5/27/2002			A	130103	-12292986.37	4159441.134	
592777	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR	25				5/27/2002			A	130104	-12292986.37	4159441.134	
592778	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR	25				5/27/2002			A	130105	-12292986.37	4159441.134	
593169	A18019034DBC	MILTON H DESPAIN	EXEMPT	115	50	6	X	6/19/2002	43			130124	-12280056.68	4152079.747	
593851	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR					7/29/2002			A	128580	-12282555.41	4158023.005	
594035	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR					8/8/2002				125062	-12292986.37	4159441.134	
594036	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR	25				8/8/2002			A	125063	-12292986.37	4159441.134	
594037	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR	25				8/8/2002			A	125064	-12292986.37	4159441.134	
594038	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR					8/8/2002				125065	-12292986.37	4159441.134	
594039	A18018010CCC	JACKRABBIT TRADING POST	ENV - MONITOR	25				8/8/2002			A	125066	-12292986.37	4159441.134	
594796	A18019023CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/26/2002				130627	-12278339.55	4155554.62	
594797	A18019023CDD	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL					9/26/2002				130628	-12278339.55	4155554.62	
595839	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR	15	11		X	11/17/2002	20		A	145111	-12282555.41	4158023.005	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report Sta	OBJECTID	x	y	WSP Comments
595846	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR	15	14	1	X	11/17/2002	20		A	145117	-12282555.41	4158023.005	
595849	A18019016CAC	HARTLEY TURLEY	ENV - MONITOR	10	10	4	X	11/17/2002	20		A	145120	-12282555.41	4158023.005	
599261	A18019017CDD	JOSEPH CITY SANITARY DISTRICT	ENV - MONITOR	30	30	6	X	6/30/2003	6			147569	-12284319.38	4157520.237	
600208	A17020010CAC	SHUMWAY, DREW,	NON-EXEMPT	200	20	12	N	10/6/1981	30	600	N	144636	-12268649.78	4148164.519	
600239	A17020003BAD	SHUMWAY, DREW,	NON-EXEMPT	500	65	12	N	10/6/1981	31	400	N	145385	-12268397.04	4151135.247	
600240	A17020011CAC	SHUMWAY, DREW,	NON-EXEMPT	400	60	12	N	10/6/1981	30	500	N	145386	-12266679.84	4148169.564	
600241	A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	200	10	8	N	10/6/1981	3	150	N	145387	-12267908.5	4148660.353	
600242	A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	N	10/6/1981	3	200	N	145388	-12267908.5	4148660.353	
600243	A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	N	10/6/1981	3	200	N	145389	-12267908.5	4148660.353	
600245	A17020005CCD	SHUMWAY, DREW,	NON-EXEMPT	225	10	10	N	10/6/1981	10	300	N	145391	-12272884.86	4149600.879	
600246	A17020005DCC	SHUMWAY, DREW,	NON-EXEMPT	225	20	10	N	10/6/1981	0	150	N	145392	-12272140.35	4149614.829	
600247	A17020005DCB	SHUMWAY, DREW,	NON-EXEMPT	225	20	10	N	10/6/1981	3	150	N	145393	-12272141.62	4149866.954	
600248	A17020003BBC	FUELCO TRAVEL CENTER,	NON-EXEMPT	495	60	10	N	10/6/1981	27	300	N	145394	-12269140.33	4151133.778	
600249	A17020010DBC	SHUMWAY, DREW,	NON-EXEMPT	210	20	8	N	10/6/1981	50	100	N	145395	-12268158.23	4148166.738	
600250	A17020011DDB	SHUMWAY, DREW,	NON-EXEMPT	410	65	12	N	10/6/1981	40	300	N	145396	-12265696.48	4147921.727	
600251	A17020005ABA	SHUMWAY, DREW,	NON-EXEMPT	350	20	8	N	10/6/1981	100	300	N	145397	-12271902	4151380.391	
600252	A17020010DDA	SHUMWAY, DREW,	NON-EXEMPT	225	42	12	N	10/6/1981	75	300	N	145398	-12267422.22	4147921.019	
600253	A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	200	10	12	N	10/6/1981	20	400	N	145399	-12268647.74	4148657.66	
600254	A17020003BCD	SHUMWAY, DREW,	NON-EXEMPT	200	20	8	N	10/6/1981	3	100	N	145758	-12268892.59	4150637.336	
600255	A17020010ACD	SHUMWAY, DREW,	NON-EXEMPT	150	10	8	N	10/6/1981	3	100	N	145759	-12267908.5	4148660.353	
600256	A17020010DAC	SHUMWAY, DREW,	EXEMPT	280	10	10	N	10/6/1981	35	30	N	145760	-12267666.57	4148167.711	
600372	A17019012DAC	DAVID DESPAIN	NON-EXEMPT	300	71	6	X	9/27/1981	50	100	N	147998	-12275647.93	4148109.986	
600373	A17019012DBC	DAVID DESPAIN	NON-EXEMPT	250	70	8	X	9/27/1981	80	100	X	147999	-12276148.43	4148117.289	
600374	A17018001DAA	AZTEC LAND & CATTLE,	EXEMPT	180	60	6	N	9/27/1981	160	5	N	148000	-12287322.67	4150313.393	
600375	A18019033DAA	AZTEC LAND CO. LLC.	EXEMPT	100	40	6	N	9/27/1981	20	12	N	148001	-12281289.52	4152319.532	
600376	A18019017DAA	F B HANSEN	EXEMPT	450	120	8	N	9/27/1981	90	20	N	148002	-12283304.51	4158266.809	
600377	A17020010BDC	SHUMWAY, DREW,	NON-EXEMPT	75	5	12	N	9/27/1981	18	500	N	148003	-12268647.74	4148657.66	
600378	A17020010BDC	DAVID & DEBBIE SHUMWAY	NON-EXEMPT	75	5	12	N	9/27/1981	18	100	N	148004	-12268647.74	4148657.66	
600383	A17018003DAD	AZTEC LAND & CATTLE,	EXEMPT	130	20	6	N	9/27/1981	100	7	N	148009	-12291301.33	4149991.099	
600521	A17020007ABC	JANSEN,H W	NON-EXEMPT	250	12	12	N	12/15/1981	50	150	N	144285	-12274138.09	4149095.017	
600527	A18019016000	RANDALL, A BLAINE,	NON-EXEMPT	450	150	12	N	12/15/1981	50	1,200	N	144644	-12282189.96	4158396.572	
601745	A17020010CDA	RICK G TAYLOR	EXEMPT	150	20	6		9/17/1981	50	30		137669	-12268405.27	4147919.07	
601814	A18019018DAA	PORTER,H D	NON-EXEMPT	322	250	8		1/17/1982	20	10		138654	-12285344.79	4158258.045	
601836	A17019012AAD	B & C UNITED ENERGIES	NON-EXEMPT	325	10	12		1/18/1982	60	220		138979	-12275398.66	4149090.834	
601837	A17019012ABB	ALONZO & SHARI MCLAWS	NON-EXEMPT	400	10	12		1/18/1982	69	220		138980	-12276148.83	4149352.063	
602175	A17020010DAB	SIMPER,A D	NON-EXEMPT	150	10	8		2/3/1982	3	200		139312	-12267664.37	4148414.881	
602176	A17020010DBD	COOPER & SHEALYNN REIDHEAD	NON-EXEMPT	130	48	8		2/3/1982	21	200		139313	-12267912.4	4148167.227	
602321	A18020033CDD	BLACK ROCK CONSTR,	NON-EXEMPT	225	45	8		1/20/1982	40	400		141589	-12270405.19	4151632.053	
602783	A17020007BDD	JOHNNY C & SHIRLEY A PENROD, TRUSTEES	NON-EXEMPT	100	100	6		2/9/1982	46	100		138391	-12274388.64	4148602.47	
602960	A17020010DAB	HEWARD,J E	EXEMPT	100	20	8		2/16/1982	8	30		141309	-12267664.37	4148414.881	
602961	A17020008ACA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	150	20	8		2/16/1982	1	150		141310	-12271883.47	4148881.036	
602962	A17020008ACA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	200	20	10		2/16/1982	1	200		141311	-12271883.47	4148881.036	
602963	A17020008DAB	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	225	35	10		2/16/1982	28	400		141312	-12271628.28	4148394.487	
602964	A17020008BDA	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	150	20	6		2/16/1982	1	100		141313	-12272381.2	4148871.356	
602965	A17020008BDB	J-S FARMS, INC. A COLORADO CORP	NON-EXEMPT	200	20	10		2/16/1982	12	600		141314	-12272630.24	4148867.121	
603167	A17020010CAB	MICHAEL & ERNESTINE KAFFER	NON-EXEMPT	150	20	8		2/17/1982	30	350		139380	-12268648.69	4148411.698	
603770	A18020033000	THOMPSON,G C	NON-EXEMPT	210	100	6		9/13/1982	100	60		138770	-12270282.54	4152494.101	
603796	A18019016CAA	CORNELIS E. & KRISTI J. JANSEN	NON-EXEMPT	450	0	0		9/9/1981	0	75		139098	-12282310.03	4158272.446	
603863	A17020011ACC	HEYWOOD,Y	NON-EXEMPT	300	0	12		2/18/1982	50	450		140080	-12266183.83	4148666.04	
603864	A17020011ACC	HEYWOOD,Y	NON-EXEMPT	200	0	4		2/18/1982	50	40		140081	-12266183.83	4148666.04	
603865	A17020011ACC	PACIFIC UNION CONFERENCE OF SEVENTH-DAY ADVENTISTS	EXEMPT	150	150	8		2/18/1982	30	0		140082	-12266183.83	4148666.04	
604008	A18020033000	DESPAIN,E R	NON-EXEMPT	235	100	6		9/20/1981	100	150		142348	-12270282.54	4152494.101	
604247	A17020011CBB	L. GRANT BRINKERHOFF	NON-EXEMPT	0	0	6		2/25/1982	21	100		141071	-12267170.75	4148415.816	
604273	A17020007DBC	ROY WHITE	NON-EXEMPT	175	121	8		3/3/1982	82	100		141402	-12274133.97	4148113.546	
604646	A18020033BC0	PARISH,J D	NON-EXEMPT	250	80	8		3/11/1982	67	60		142380	-12271049.87	4152739.974	
604689	A17020010CAA	D'AMICO, DONALD,R	NON-EXEMPT	150	150	12		3/10/1982	15	1,100		137861	-12268402.61	4148412.196	
604690	A17020010CAA	HOLBROOK, CITY OF,	NON-EXEMPT	60	40	12		3/10/1982	10	1,000		137862	-12268402.61	4148412.196	
604691	A17020010CAA	HOLBROOK, CITY OF,	NON-EXEMPT	50	30	12		3/10/1982	10	450		137863	-12268402.61	4148412.196	
604918	A17020007CCB	DARRELL A & CYNTHIA L STEEN	NON-EXEMPT	200	126	6		3/7/1982	80	35		141441	-12275145.43	4147859.134	
604926	A17020011000	BRIGHAM YOUNG UNIV.,	NON-EXEMPT	0	0	0		3/9/1982	0	0		141751	-12266307.26	4148540.998	
605139	A17019012ACA	B & C UNITED ENERGIES	NON-EXEMPT	408	13	10		3/21/1982	74	300		139830	-12275898.4	4148853.387	
605141	A17020010BCB	MC LAWS,W	NON-EXEMPT	100	221	5		3/21/1982	12	100		139832	-12269140.06	4148902.624	
605469	A18020033CDA	WILLIAM WIEGAND	NON-EXEMPT	208	208	6		4/6/1982	165	120	A	140184	-12270407.07	4151878.108	
605470	A17020010BCB	MC LAWS,C L	NON-EXEMPT	100	0	8		4/6/1982	8	0		140185	-12269140.06	4148902.624	
605617	A18020034C00	JENNINGS,C L	NON-EXEMPT	300	150	8		3/30/1982	120	45		137591	-12268769.22	4151998.708	
605778	A17020005000	DEWITT,M	NON-EXEMPT	240	18	12		3/30/1982	46	500		140186	-12272271.53	4150494.583	
605779	A17020011000	DEWITT,H K	NON-EXEMPT	175	15	12		3/30/1982	30	350		140187	-12266307.26	4148540.998	
606476	A17020010CBB	JEFFERS,J C	NON-EXEMPT	0	0	0		4/29/1982	0	0		140890	-12269140.61	4148409.46	
606477	A17020010CBB	JEFFERS,J C	NON-EXEMPT	150	0	0		4/29/1982	17	0		140891	-12269140.61	4148409.46	
606478	A17020011CAB	JEFFERS,J C	NON-EXEMPT	200	0	0		4/29/1982	0	300		140892	-12266677.98	4148416.736	
606495	A17020007BBC	HILDEBRAND,R E	NON-EXEMPT	400	8	12		4/25/1982	67	374		141216	-12275147.47	4149088.996	
606498	A17020011C00	ADAIR,F R	NON-EXEMPT	125	20	6		4/25/1982	26	50		141219	-12266804.23	4148045.753	
606720	A18020033BAC	DESPAIN,R E	NON-EXEMPT	350	129	11		5/2/1982	90	100		156216	-12270671.82	4153107.991	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report Sta	OBJECTID	x	y	WSP Comments
606724	A17020008D00	J-S FARMS, INC.	EXEMPT	0	0	0		5/2/1982	0	35		156220	-12271748.51	4148024.624	
606725	A17020008D00	J-S FARMS, INC.	EXEMPT	0	0	0		5/2/1982	0	35		156221	-12271748.51	4148024.624	
606801	A18018010ADA	THE CAROL A SHAFF REVOCABLE TRUST	EXEMPT	50	50	6		4/15/1982	30	20		157190	-12291264.15	4160702.68	
607766	A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	460	10	12		5/6/1982	92	525		157561	-12275897.77	4147619.889	
607767	A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	250	10	7		5/6/1982	94	100		157562	-12275897.77	4147619.889	
607768	A17020007BDC	JOHN W. MYERS, JR.	NON-EXEMPT	150	51	6		5/6/1982	47	100		157563	-12274641.19	4148600.663	
607769	A17019012DCD	MYERS, JOHN JR,W	NON-EXEMPT	180	8	8		5/6/1982	81	100		157564	-12275897.77	4147619.889	
608472	A18019022CBC	LARRY E. & AVA RACHELE BALDWIN	NON-EXEMPT	440	343	10		5/9/1982	10	1,000		153760	-12281068.15	4156055.977	
609539	A18019016CD0	NEAL,T R	NON-EXEMPT	200	0	3		5/24/1982	19	0		155439	-12282430.21	4157653.52	
609540	A18019016CD0	NEAL,T R	NON-EXEMPT	200	0	8		5/24/1982	19	500		155440	-12282430.21	4157653.52	
609578	A17020007BDC	PENROD, JOHNNY,E	NON-EXEMPT	400	10	12		5/13/1982	90	700		156084	-12274641.19	4148600.663	
609959	A18020033D00	SCHADE,G L	NON-EXEMPT	150	130	6		5/23/1982	0	0		157052	-12269773.08	4152000.478	
610650	A17020007DAD	JEAN GEORGE	NON-EXEMPT	250	9	9		5/22/1982	49	75		157732	-12273375.63	4148118.909	
613088	A18019026ACB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	595	695	30		6/9/1982	0	1,200		149846	-12278089.86	4154813.285	
613089	A18019036CCC	ARIZONA PUBLIC SERVICE	NON-EXEMPT	350	55	10		6/9/1982	27	950	X	149847	-12277118.32	4151609.877	
613090	A18019036CCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	350	60	24		6/9/1982	37	2,000		149848	-12276870.7	4151610.551	
613091	A17019002DBC	ARIZONA PUBLIC SERVICE	NON-EXEMPT	487	320	16		6/9/1982	55	750		149849	-12278115.83	4150110.235	
613092	A17019010DDB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	550	38	24		6/9/1982	100	450		150156	-12279601.69	4147868.855	
613093	A18019028CDC	ARIZONA PUBLIC SERVICE	NON-EXEMPT	245	58	12		6/9/1982	14	800	X	150157	-12282534.81	4153559.465	
613094	A17019004DDC	ARIZONA PUBLIC SERVICE	NON-EXEMPT	550	61	24		6/9/1982	87	1,000		150158	-12281543.57	4149592.949	
613095	A17019004BDB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	430	85	24		6/9/1982	30	900	X	150159	-12282538.76	4150821.097	
613096	A17019012BCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	458	79	7	X	6/9/1982	103	900		150160	-12276898.99	4148624.419	
613097	A17019012CAC	ARIZONA PUBLIC SERVICE	NON-EXEMPT	576	78	11	X	6/9/1982	97	600		150161	-12276649.03	4148125.795	
613098	A18019020DDD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	0	0	8		6/9/1982	0	0		150162	-12283291.37	4155561.47	
613099	A17020006DDD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	127	25	5	X	6/9/1982	58	0		150163	-12273382.96	4149593.604	
613125	A18019026BAD	ARIZONA PUBLIC SERVICE	EXEMPT	45	0	2		6/9/1982	24	0		150492	-12278339.47	4155059.933	
613126	A18019026BAD	ARIZONA PUBLIC SERVICE	EXEMPT	6	0	2		6/9/1982	2	0		150493	-12278339.47	4155059.933	
613127	A18019026BAD	ARIZONA PUBLIC SERVICE	EXEMPT	8	0	0		6/9/1982	0	0		150494	-12278339.47	4155059.933	
613128	A18019026BAD	ARIZONA PUBLIC SERVICE	EXEMPT	10	0	0		6/9/1982	1	0		150495	-12278339.47	4155059.933	
613129	A18019026BAD	ARIZONA PUBLIC SERVICE	EXEMPT	12	0	0		6/9/1982	2	0		150496	-12278339.47	4155059.933	
613130	A18019026BDA	ARIZONA PUBLIC SERVICE	EXEMPT	15	0	0		6/9/1982	15	0		150497	-12278339.12	4154812.595	
613131	A18019026ACB	ARIZONA PUBLIC SERVICE	EXEMPT	45	0	0		6/9/1982	20	0		150498	-12278089.86	4154813.285	
613132	A18019026ACB	ARIZONA PUBLIC SERVICE	EXEMPT	8	0	0		6/9/1982	2	0		150499	-12278089.86	4154813.285	
613133	A18019026BDA	ARIZONA PUBLIC SERVICE	EXEMPT	18	0	0		6/9/1982	17	0		150500	-12278339.12	4154812.595	
613134	A18019026ACB	ARIZONA PUBLIC SERVICE	EXEMPT	45	0	0		6/9/1982	17	0		150805	-12278089.86	4154813.285	
613135	A18019026ACB	ARIZONA PUBLIC SERVICE	EXEMPT	10	0	0		6/9/1982	8	0		150806	-12278089.86	4154813.285	
613136	A18019026ACB	ARIZONA PUBLIC SERVICE	EXEMPT	6	0	0		6/9/1982	1	0		150807	-12278089.86	4154813.285	
613137	A18019026ACB	ARIZONA PUBLIC SERVICE	EXEMPT	8	0	0		6/9/1982	1	0		150808	-12278089.86	4154813.285	
613138	A18019026ACB	ARIZONA PUBLIC SERVICE	EXEMPT	18	0	0		6/9/1982	0	0		150809	-12278089.86	4154813.285	
613139	A18019026ACC	ARIZONA PUBLIC SERVICE	EXEMPT	14	0	0		6/9/1982	12	0		150810	-12278089.76	4154565.955	
613140	A18019026ACD	ARIZONA PUBLIC SERVICE	EXEMPT	45	0	0		6/9/1982	18	0		150811	-12277840.85	4154567.866	
613141	A18019026ACD	ARIZONA PUBLIC SERVICE	EXEMPT	18	0	0		6/9/1982	16	0		150812	-12277840.85	4154567.866	
613142	A18019026ACD	ARIZONA PUBLIC SERVICE	EXEMPT	35	0	0		6/9/1982	13	0		150813	-12277840.85	4154567.866	
613143	A18019021CCB	ARIZONA PUBLIC SERVICE	EXEMPT	1,005	267	10		6/9/1982	8	0		150814	-12283040.22	4155808.387	
613144	A18019028DDD	ARIZONA PUBLIC SERVICE	EXEMPT	374	0	12		6/9/1982	13	0		150815	-12281302.62	4153562.201	
613145	A18019026CBB	ARIZONA PUBLIC SERVICE	EXEMPT	570	0	0		6/9/1982	30	0		150816	-12279083.55	4154312.142	
613146	A17019004CCC	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		6/9/1982	0	0		150817	-12283043.13	4149587.06	
613147	A18019028DDD	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		6/9/1982	0	0		150818	-12281302.62	4153562.201	
613148	A18019026ACB	ARIZONA PUBLIC SERVICE	EXEMPT	595	595	0		6/9/1982	0	0		150819	-12278089.86	4154813.285	
613149	A18019026BBA	ARIZONA PUBLIC SERVICE	EXEMPT	570	185	12		6/9/1982	0	0		150820	-12278839.25	4155302.213	
613150	A18019035BDB	ARIZONA PUBLIC SERVICE	EXEMPT	57	50	6		6/9/1982	45	0		150821	-12278583.65	4152832.156	
613151	A18019026CAA	ARIZONA PUBLIC SERVICE	EXEMPT	57	53	6		6/9/1982	40	0		150822	-12278338.43	4154317.936	
613152	A18019025CDC	ARIZONA PUBLIC SERVICE	EXEMPT	56	49	6		6/9/1982	32	0	A	150823	-12276605.72	4153584.467	
613153	A18019026DAB	ARIZONA PUBLIC SERVICE	EXEMPT	92	80	6		6/9/1982	40	0		150824	-12277592.47	4154322.451	
613154	A18019022DCA	ARIZONA PUBLIC SERVICE	EXEMPT	100	100	6		6/9/1982	5	0		150825	-12279833.07	4155800.151	
613155	A17019012BBA	ARIZONA PUBLIC SERVICE	EXEMPT	0	0	0		6/9/1982	0	0	A	151134	-12276898.83	4149367.256	
613158	A18018013BAD	ARIZONA PUBLIC SERVICE	EXEMPT	1,005	290	16		6/9/1982	35	0		151137	-12288322.84	4158963.893	
613159	A18018011CCD	ARIZONA PUBLIC SERVICE	EXEMPT					6/9/1982		0		151138	-12290774.06	4159450.286	
613163	A18019024BBB	ARIZONA PUBLIC SERVICE	EXEMPT	77	50	1		6/9/1982	77	0		151142	-12277102.36	4157296.998	
613164	A18019023AAA	ARIZONA PUBLIC SERVICE	EXEMPT	44	28	1		6/9/1982	28	0		151143	-12277349.12	4157296.313	
613165	A18019023AAA	ARIZONA PUBLIC SERVICE	EXEMPT	177	88	1		6/9/1982	62	0		151144	-12277349.12	4157296.313	
613166	A18019023AAA	ARIZONA PUBLIC SERVICE	EXEMPT	164	88	1		6/9/1982	20	0		151145	-12277349.12	4157296.313	
613167	A18019023AAB	ARIZONA PUBLIC SERVICE	EXEMPT	137	88	1		6/9/1982	54	0		151146	-12277597.97	4157294.413	
613168	A18019023AAB	ARIZONA PUBLIC SERVICE	EXEMPT	50	33	2		6/9/1982	1	0		151147	-12277597.97	4157294.413	
613169	A18019023AAA	ARIZONA PUBLIC SERVICE	EXEMPT	154	114	1		6/9/1982	29	0		151148	-12277349.12	4157296.313	
613170	A18019023AAA	ARIZONA PUBLIC SERVICE	EXEMPT	102	87	1		6/9/1982	27	0		151149	-12277349.12	4157296.313	
613171	A18019023AAA	ARIZONA PUBLIC SERVICE	EXEMPT	292	277	2		6/9/1982	74	0		151150	-12277349.12	4157296.313	
613172	A18019024BBB	ARIZONA PUBLIC SERVICE	EXEMPT	50	18	1		6/9/1982	9	0		151151	-12277102.36	4157296.998	
613173	A18019024BBB	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	19	0		151152	-12277102.36	4157296.998	
613174	A18019014DAA	ARIZONA PUBLIC SERVICE	EXEMPT	80	48	1		6/9/1982	52	0		151153	-12277361.14	4158285.989	
613175	A18019014DDB	ARIZONA PUBLIC SERVICE	EXEMPT	81	41	1		6/9/1982	30	0		151154	-12277602.16	4157789.227	
613176	A18019014DAC	ARIZONA PUBLIC SERVICE	EXEMPT	80	53	1		6/9/1982	77	0		151461	-12277605.41	4158036.65	
613177	A18019013CAA	ARIZONA PUBLIC SERVICE	EXEMPT	62	40	1		6/9/1982	32	0		151462	-12276380.35	4158287.517	
613178	A18019014DCD	ARIZONA PUBLIC SERVICE	EXEMPT	67	38	1		6/9/1982	39	0		151463	-12277847.51	4157539.901	
613179	A18019014DCD	ARIZONA PUBLIC SERVICE	EXEMPT	67	38	1		6/9/1982	41	0		151464	-12277847.51	4157539.901	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report St	OBJECTID	x	y	WSP Comments
613180	A18019014DCD	ARIZONA PUBLIC SERVICE	EXEMPT	54	31	1		6/9/1982	33	0		151465	-12277847.51	4157539.901	
613181	A18019013CAD	ARIZONA PUBLIC SERVICE	EXEMPT	57	25	1		6/9/1982	30	0		151466	-12276377.6	4158041.317	
613182	A18019013CAD	ARIZONA PUBLIC SERVICE	EXEMPT	53	28	1		6/9/1982	33	0		151467	-12276377.6	4158041.317	
613183	A18019013CCA	ARIZONA PUBLIC SERVICE	EXEMPT	70	43	1		6/9/1982	40	0		151468	-12276864.27	4157792.524	
613184	A18019013CCA	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	32	0		151469	-12276864.27	4157792.524	
613185	A18019013CCA	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	18	0		151470	-12276864.27	4157792.524	
613186	A18019013CCC	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	3	0		151471	-12277105.48	4157544.41	
613187	A18019013CCC	ARIZONA PUBLIC SERVICE	EXEMPT	50	25	1		6/9/1982	0	0		151472	-12277105.48	4157544.41	
613188	A18019013CCC	ARIZONA PUBLIC SERVICE	EXEMPT	55	21	1		6/9/1982	21	0		151473	-12277105.48	4157544.41	
613189	A18019013CCC	ARIZONA PUBLIC SERVICE	EXEMPT	55	31	1		6/9/1982	7	0		151474	-12277105.48	4157544.41	
613190	A18019024BBB	ARIZONA PUBLIC SERVICE	EXEMPT	60	33	1		6/9/1982	0	0		151475	-12277102.36	4157296.998	
613191	A18019023AAB	ARIZONA PUBLIC SERVICE	EXEMPT	58	37	0		6/9/1982	5	0		151476	-12277597.97	4157294.413	
613192	A18019023ABA	ARIZONA PUBLIC SERVICE	EXEMPT	50	27	1		6/9/1982	12	0		151477	-12277846.81	4157292.507	
613193	A18019025DAA	ARIZONA PUBLIC SERVICE	EXEMPT	26	16	1		6/9/1982	16	0		151478	-12275376.94	4154328.509	
613194	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	56	41	1		6/9/1982	17	0		151479	-12274882.89	4154084.913	
613195	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	77	57	1		6/9/1982	18	0		151480	-12274882.89	4154084.913	
613196	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	146	133	2		6/9/1982	27	0		151481	-12274882.89	4154084.913	
613197	A18020030CDA	ARIZONA PUBLIC SERVICE	EXEMPT	92	52	1		6/9/1982	70	0		151482	-12274388.01	4153841.294	
613198	A18020030CDA	ARIZONA PUBLIC SERVICE	EXEMPT	191	175	2		6/12/1982	69	0		151483	-12274388.01	4153841.294	
613199	A18019025ADA	ARIZONA PUBLIC SERVICE	EXEMPT	112	32	1		6/9/1982	97	0		151794	-12275376.42	4154820.71	
613200	A18019025AAD	ARIZONA PUBLIC SERVICE	EXEMPT	132	32	1		6/9/1982	117	0		151795	-12275376.33	4155068.044	
613201	A18020019CCA	ARIZONA PUBLIC SERVICE	EXEMPT	54	32	1		6/9/1982	0	0		151796	-12274886.46	4155818.732	
613202	A18020030DDA	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	0	31		151797	-12273398.67	4153847.395	
613203	A18019025AAC	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	39	0		151798	-12275621.46	4155067.385	
613204	A18019025ABA	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	0	0		151799	-12275866.52	4155314.061	
613205	A18019024DCD	ARIZONA PUBLIC SERVICE	EXEMPT	57	35	1		6/9/1982	0	0		151800	-12275866.55	4155562.631	
613206	A18020030DCB	ARIZONA PUBLIC SERVICE	EXEMPT	60	38	1		6/9/1982	0	0		151801	-12274140.58	4153843.133	
613207	A18020030DCB	ARIZONA PUBLIC SERVICE	EXEMPT	60	38	1		6/9/1982	53	0		151802	-12274140.58	4153843.133	
613208	A18020030CDA	ARIZONA PUBLIC SERVICE	EXEMPT	60	38	1		6/9/1982	0	0		151803	-12274388.01	4153841.294	
613209	A18020030CDB	ARIZONA PUBLIC SERVICE	EXEMPT	51	29	1		6/9/1982	0	0		151804	-12274635.44	4153839.45	
613210	A18020030CDA	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	0	0		151805	-12274388.01	4153841.294	
613211	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	70	43	1		6/9/1982	58	0		151806	-12274882.89	4154084.913	
613212	A18020030CBD	ARIZONA PUBLIC SERVICE	EXEMPT	51	29	1		6/9/1982	18	0		151807	-12274882.89	4154084.913	
613213	A18020030CBA	ARIZONA PUBLIC SERVICE	EXEMPT	120	88	1		6/9/1982	55	0		151808	-12274882.67	4154332.23	
613214	A18020030CBA	ARIZONA PUBLIC SERVICE	EXEMPT	120	88	2		6/9/1982	96	0		151809	-12274882.67	4154332.23	
613215	A18020030CBA	ARIZONA PUBLIC SERVICE	EXEMPT	116	88	1		6/9/1982	77	0		151810	-12274882.67	4154332.23	
613216	A18020030CBB	ARIZONA PUBLIC SERVICE	EXEMPT	70	43	1		6/9/1982	11	0		151811	-12275130.35	4154330.376	
613217	A18020030CBB	ARIZONA PUBLIC SERVICE	EXEMPT	37	19	1		6/9/1982	21	0		151812	-12275130.35	4154330.376	
613218	A18020030BCC	ARIZONA PUBLIC SERVICE	EXEMPT	100	79	1		6/9/1982	59	0		151813	-12275130.15	4154576.474	
613219	A18019030BCC	ARIZONA PUBLIC SERVICE	EXEMPT	103	81	1		6/9/1982	80	0		151814	-12287080.18	4154524.231	
613220	A18019025ADD	ARIZONA PUBLIC SERVICE	EXEMPT	60	38	1		6/9/1982	51	0		151815	-12275376.86	4154574.608	
613221	A18019025ADD	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	21	0		151816	-12275376.86	4154574.608	
613222	A18019025ADD	ARIZONA PUBLIC SERVICE	EXEMPT	50	28	1		6/9/1982	13	0		152127	-12275376.86	4154574.608	
613223	A18019025ADA	ARIZONA PUBLIC SERVICE	EXEMPT	80	58	1		6/9/1982	57	0		152128	-12275376.42	4154820.71	
613399	A17019011BCC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	340	260	24		6/8/1982	94	1,250		149525	-12279105.52	4148611.869	
613400	A17019003ACB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	260	24	X	6/8/1982	105	638	X	149526	-12280057.96	4150839.787	
613401	A17019011DDC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	299	24		6/8/1982	96	750		149527	-12277641.26	4147636.075	
613402	A17019001CDC	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	470	279	24		6/8/1982	69	1,000		149528	-12276644.54	4149610.198	
613403	A17019001ADA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	390	278	24		6/8/1982	39	700	X	149529	-12275393.8	4150856.873	
613404	A18019033DAD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	410	269	24		6/8/1982	26	600		149530	-12281286.68	4152071.013	
613405	A17019009BDB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	415	239	24		6/8/1982	92	1,250	X	149531	-12282549.18	4148854.388	
613406	A17019009DDA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	550	319	24		6/8/1982	126	1,250		149532	-12281319.12	4147872.047	
613407	A17019005BDA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	490	279	24		6/8/1982	64	850	X	149533	-12284280.52	4150808.085	
613408	A18019032BDD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	314	24		6/8/1982	98	1,050	X	149534	-12284278.59	4152542.597	
613409	A17019006BAB	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	363	24		6/8/1982	179	500		149535	-12286548.99	4151287.737	
613410	A17019011ACA	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	530	319	24		6/8/1982	82	800		149536	-12277883.28	4148872.511	
613411	A17019001DBD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	500	400	24		6/8/1982	65	450		149537	-12275892.71	4150101.66	
613412	A17019005DCD	AZTEC LAND & CATTLE CO LTD	NON-EXEMPT	365	259	24		6/8/1982	69	500		149538	-12283786.92	4149587.061	
613413	A18019027BBB	AZTEC LAND & CATTLE CO LTD	EXEMPT	840	285	10		6/8/1982	14	0		149539	-12281065.35	4155313.902	
613414	A17019005BBB	AZTEC LAND & CATTLE CO LTD	EXEMPT	1,020	282	10		6/8/1982	111	0		149850	-12285023.99	4151291.486	
613415	A17019001ADD	AZTEC LAND & CATTLE CO LTD	EXEMPT	755	50	10		6/8/1982	45	0		149851	-12275394.41	4150603.515	
613416	A17019009AAD	AZTEC LAND & CATTLE CO LTD	EXEMPT	780	44	10		6/8/1982	100	0		149852	-12281299.3	4149101.766	
613417	A18019027DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	900	163	10		6/8/1982	14	0		149853	-12279325.85	4153570.665	
613418	A18019035DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	560	120	11	X	6/8/1982	65	0	X	149854	-12277365.82	4151607.972	
613421	A18019035DDD	AZTEC LAND & CATTLE CO LTD	EXEMPT	520	57	10		6/8/1982	33	0		149857	-12277365.82	4151607.972	
613422	A18019030DCD	AZTEC LAND & CATTLE CO LTD	EXEMPT	670	288	10		6/8/1982	72	0		149858	-12285790.95	4153525.6	
613423	A17019007ADA	AZTEC LAND & CATTLE CO LTD	EXEMPT	555	141	10		6/8/1982	92	0		149859	-12285280.03	4148852.656	
613424	A18019032AAA	AZTEC LAND & CATTLE CO LTD	EXEMPT	854	136	11		6/8/1982	25	0		149860	-12283275.89	4153306.059	
613425	A17019005ADD	AZTEC LAND & CATTLE CO LTD	EXEMPT	845	112	10		6/8/1982	42	0		149861	-12283289.52	4150569.038	
613429	A18018027AAB	AZTEC LAND & CATTLE CO LTD	EXEMPT	555	190	11	X	6/8/1982	0	0		149865	-12291516.69	4155229.442	
613443	A18018024DDD	AZTEC LAND AND CATTLE CO., LTD	EXEMPT	338	338	24	X	6/8/1982	0	0	X	150188	-12287335.69	4155524.977	
613444	A18018024ADD	AZTEC LAND AND CATTLE CO., LTD	EXEMPT	785	278	10		6/8/1982	20	0		150189	-12287336.75	4156498.504	
614307	A18020028ACD	ARIZONA STATE LAND DEPARTMENT	EXEMPT	0	0	0		6/13/1982	0	17		148619	-12269911.41	4154596.961	
614308	A18020032DDA	ARIZONA STATE LAND DEPARTMENT	EXEMPT	100	0	9		6/13/1982	0	0	X	148620	-12271412.39	4151878.516	
616734	A17020010000	DANIEL J & BEKI A HEALY	NON-EXEMPT	75	3	8		5/24/1982	25	250		151043	-12268277.37	4148537.245	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report Sta	OBJECTID	x	y	WSP Comments
616735	A17020008B00	JUAN BARRERAS	NON-EXEMPT	350	60	10		5/24/1982	45	395		151044	-12272756.16	4148986.778	
617195	A17020007000	BURRELL,M J	NON-EXEMPT	250	16	8		6/1/1982	90	60		168784	-12274263.22	4148479.168	
617485	A17020011AAD	MYERS,J	NON-EXEMPT	270	100	12		4/15/1982	11	100		168161	-12265443.36	4149165.408	
618132	A17020010CCB	FARMERS HOME,	EXEMPT	150	150	6		6/8/1982	50	35		168509	-12269140.8	4147916.315	
618962	A17020007ABA	BRUCE & CHELSIE GERMAIN	NON-EXEMPT	135	7	12		6/10/1982	46	97		165998	-12273886.77	4149341.583	
618963	A17020007ABA	NEWTON,F E	EXEMPT	135	7	12		6/10/1982	4,634.00	34,000		165999	-12273886.77	4149341.583	
619248	A17020010CDA	JORDAN AUTOBEE	NON-EXEMPT	200	40	6		6/13/1982	60	100		165682	-12268405.27	4147919.07	
619249	A17020010CBB	BRANDON & BRIGGETTE BRIMHALL	NON-EXEMPT	150	20	6		6/13/1982	30	50		165683	-12269140.61	4148409.46	
619389	A17020007ADD	DAVENPORT,M	NON-EXEMPT	235	50	10		6/13/1982	40	300		167637	-12273378.45	4148608.416	
619460	A17020007CCB	FIRKINS,J L	EXEMPT	200	0	6		6/13/1982	80	35		168916	-12275145.43	4147859.134	
620357	A17020010CDB	FERGUSON,E J	NON-EXEMPT	180	0	12		6/13/1982	25	1,000		168013	-12268650.73	4147918.567	
620358	A17020010CBA	FERGUSON,E J	NON-EXEMPT	100	22	12		6/13/1982	22	600		168014	-12268895.02	4148409.973	
620359	A17020010CBA	FERGUSON,E J	NON-EXEMPT	100	15	10		6/13/1982	22	400		168015	-12268895.02	4148409.973	
620360	A17020010CCC	WILSON,G	NON-EXEMPT	180	30	10		6/13/1982	50	1,000		168016	-1226914114	4147670.364	
620686	A17020007ABA	KEENE SR,R J	NON-EXEMPT	150	12	12		6/13/1982	48	3		168040	-12273886.77	4149341.583	
620722	A17020006ACB	JOSEPH CITY IRRIGATION COMPANY	NON-EXEMPT	403	8	14	X	6/13/1982	32	1,009	X	168679	-12274140.33	4150861.107	
620723	A17020006DBA	JOSEPH CITY IRRIGATION COMPANY	NON-EXEMPT	300	240	14	X	6/13/1982	19	744	X	168680	-12273888.2	4150353.739	
620724	A18019017ADC	JOSEPH CITY IRRIG CO,	NON-EXEMPT	425	275	12		6/13/1982	90	1,200		168681	-12283559.07	4158513.449	
621980	A17020007BAD	MCLAWS,J R	NON-EXEMPT	200	10	10		6/13/1982	45	100		167786	-12274390.28	4149093.213	
622735	A17020011ADC	DAVIS,L W	NON-EXEMPT	0	0	8		5/18/1982	0	50		158820	-1226569215	4148666.925	
627200	A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	460	10	12		2/8/1982	92	525		163306	-12275897.77	4147619.889	
627201	A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	180	8	8		2/8/1982	8	100		163307	-12275897.77	4147619.889	
627202	A17019012DCD	ALVIN H & DARSEL MINTER	NON-EXEMPT	250	10	7		2/8/1982	74	100		163308	-12275897.77	4147619.889	
627203	A17020007BDC	ZUFELT, L. MAYNARD,	NON-EXEMPT	150	51	6		2/8/1982	47	100		163309	-12274641.19	4148600.663	
627238	A18018015AAD	ATCHISON-TOPEKA,	NON-EXEMPT	43	43	8		6/9/1982	0	0		158775	-12291264.74	4158950.974	
627252	A17020006AAC	ATCHISON-TOPEKA,	NON-EXEMPT	80	80	6		6/9/1982	0	0		159092	-12273639.49	4151115.644	
628494	A18019016000	JOSEPH CITY WATER,	NON-EXEMPT	460	300	10		5/12/1982	70	300		179043	-12282189.96	4158396.572	
628495	A18019017CBC	JOSEPH CITY WATER,	NON-EXEMPT	390	290	10		5/12/1982	50	600		179044	-12285090.66	4158013.904	
628496	A18019017CBC	JOSEPH CITY WATER,	NON-EXEMPT	400	300	10		5/12/1982	50	600		179045	-12285090.66	4158013.904	
628497	A18019016000	JOSEPH CITY WATER,	NON-EXEMPT	500	300	10		5/12/1982	70	300		179046	-12282189.96	4158396.572	
628564	A17020007000	EDWIN & BRENDA BURROUGHS	NON-EXEMPT	250	35	6		6/20/1982	65	65		174821	-12274263.22	4148479.168	
629256	A18019016CCA	DELWIN OR EVELYN SOLOMON	NON-EXEMPT	425	0	10		6/16/1982	20	1,000	A	175839	-12282800.66	4157774.788	
629415	A17020010000	DAVID & DEBBIE SHUMWAY	NON-EXEMPT	200	20	12		6/24/1982	40	500		178453	-12268277.37	4148537.245	
629686	A17020007AAC	MELINDA WHITE	EXEMPT	0	0	0		3/1/1982	0	35		177498	-12273633.34	4149097.381	
629709	A17020010CBB	BRANDON & BRIGGETTE BRIMHALL	EXEMPT	115	20	6		2/28/1982	40	20		177829	-12269140.61	4148409.46	
629893	A18020033ACD	DILLOW,W C	EXEMPT	170	90	6		2/3/1982	70	25		175548	-12269903.22	4152614.788	
630190	A17020007DBB	MCLAWS,G T	EXEMPT	400	0	14		2/18/1982	90	2		174921	-12274134.98	4148358.293	
631391	A17020007BBB	PAGE, FRANK,L	EXEMPT	175	48	6		3/22/1982	155	25		178265	-12275147.76	4149334.984	
632346	A17020010CC0	ALBERT M FERNIZA	EXEMPT	275	20	8		4/5/1982	55	5		177659	-12269018.36	4147794.209	
632472	A17020010ACC	MAURICE L. JONES	EXEMPT	200	12	6	X	5/2/1982	52		X	174406	-12268154.95	4148659.869	
633413	A17020010DDD	TERMAIN,D	NON-EXEMPT	103	18	8		6/20/1982	13	110		173491	-12267424.55	4147673.86	
633414	A17020010ACD	TERMAIN,D	NON-EXEMPT	100	10	8		6/20/1982	8	100		173492	-12267908.5	4148660.353	
637905	A18020033BCA	HOLYOAK,J	EXEMPT	170	40	6		6/13/1982	100	35		169762	-12270924.39	4152862.65	
638034	A18020031BDC	HUNT,D	EXEMPT	130	40	9		6/13/1982	33	25		188585	-12274637.52	4152604.204	
638807	A17020009BDB	DAVIE & CYNTHIA MOYA	NON-EXEMPT	0	0	15		6/13/1982	0	30		189980	-12270638.31	4148895.954	
638808	A17020009BDB	MARVIN & KAREN MCLEMORE	EXEMPT	0	0	9		6/13/1982	0	30		189981	-12270638.31	4148895.954	
638809	A17020009BDB	HARKEY, JOHN,	EXEMPT	0	0	9		6/13/1982	0	0		189982	-12270638.31	4148895.954	
641097	A17020007CCC	KILEY AND ABBIE REIDHEAD	EXEMPT	220	10	6	X	4/14/1982	120	0	X	188781	-12275145.27	4147613.179	
641098	A17020007CCC	JAMES PRUITT	EXEMPT	180	10	6	X	4/14/1982	100	0	X	188782	-12275145.27	4147613.179	
641524	A18020033BAA	MYERS,V W	EXEMPT	265	0	6		4/12/1982	140	0		185135	-12270417.92	4153352.096	
641851	A18020033CAC	PERKINS,W D	EXEMPT	200	81	7		4/26/1982	70	30		185152	-12270662.31	4152123.682	
642511	A18018011CCD	HANSEN BROTHERS	EXEMPT	810	220	11	X	6/7/1982	33	0		184853	-12290774.06	4159450.286	
642512	A18018013BAD	NEW MEXICO-AZ LND CO,	EXEMPT	795	68	16		6/7/1982	35	0		184854	-12288322.84	4158963.893	
644029	A18020033BDA	EVELYN CAROLE USSHER	EXEMPT	400	125	8		5/17/1982	101	30		182663	-12270414.14	4152861.152	
645034	A18020033CCD	ROGERS,A W	EXEMPT	200	85	9		6/9/1982	35	35		182733	-12270910.39	4151632.288	
645218	A17020011DBD	NASH,A F	EXEMPT	0	0	0		6/7/1982	0	0		180425	-12265941.15	4148169.683	
645315	A17020011ACD	ALLEN MITCHELL	EXEMPT	120	0	8		6/10/1982	55	20		182078	-12265937.99	4148666.485	
645395	A17019012BDD	CATHLEEN MILEHAM	EXEMPT	0	8	12		6/3/1982	89	0		183089	-12276398.85	4148615.928	
648192	A17020010CBB	JOSEPH THOMAS SANTOS	EXEMPT	125	27	8		6/13/1982	60	35		180614	-12269140.61	4148409.46	
650048	A17020007DAA	JEFFERY M BALOO	EXEMPT	250	12	10		6/23/1982	50	35		200129	-12273376.86	4148363.658	
650086	A18019022ABC	LANE,J E	NON-EXEMPT	750	750	10		7/13/1982	50	200		200874	-1228008117	4157038.706	
650137	A17020010CBC	DAVID C. & TAMMY M. HAGER	EXEMPT	200	6	8		6/15/1982	45	30		195630	-12269140.7	4148163.497	
650524	A17020010CBA	PAULSELL,J L	EXEMPT	85	45	6		6/29/1982	19	0		196769	-12268895.02	4148409.973	
650787	A17020010C00	COOLEY,S R	EXEMPT	100	6	3		6/16/1982	50	0		201301	-12268772.19	4148041.894	
801481	A17020009ABA	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12		5/16/1984	0	50		195242	-12269890.14	4149390.676	
801482	A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12		5/16/1984	0	200		195243	-12269388.87	4149146.888	
801483	A17020009AAB	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12		5/16/1984	0	50		190278	-12269639.76	4149392.391	
801484	A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12		5/16/1984	0	0		190279	-12269388.87	4149146.888	
801485	A17020009AAD	JOSEPH CITY IRRIG CO,	NON-EXEMPT	150	10	12		5/16/1984	0	0		190280	-12269388.87	4149146.888	
802073	A17020011DCC	OWENS,E J	NON-EXEMPT	170	70	8		3/13/1985	90	250		194282	-12266190.85	4147673.686	
802290	A18019017DAA	F B HANSEN	EXEMPT	440	400	6		5/19/1985	50	30		192326	-12283304.51	4158266.809	
802415	A17020010CCA	THOMAS D CATERN	NON-EXEMPT	150	30	8		6/17/1985	15	300		194313	-12268896.2	4147916.835	
802416	A17020010BBB	ZUFELT,K L	EXEMPT	75	8	8		6/17/1985	6	0		194314	-12269139.63	4149394.587	
802422	A17020007000	SIZEMORE,R E	NON-EXEMPT	0	0	6		5/30/1985	30	90		194631	-12274263.22	4148479.168	
803003	A17020010CBA	WESTERN SAVINGS,	EXEMPT	0	0	0		9/16/1985	0	0		193348	-12268895.02	4148409.973	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report St	OBJECTID	x	y	WSP Comments
805293	A18019017BD0	DOUGLAS AND PATRICIA POGUE	EXEMPT	0	0	0		10/31/1988	0	0		193164	-12284455.45	4158635.669	
806201	A17020011D00	SEVENTH DAY ADVENT.,	NON-EXEMPT	250	90	12		11/24/1991	35	500		191908	-12265819	4148045.095	
806202	A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	200	0	10		11/24/1991	35	100		191909	-12266804.23	4148045.753	
806203	A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	220	90	12		11/24/1991	37	150		191910	-12266804.23	4148045.753	
806204	A17020011C00	SEVENTH DAY ADVENT.,	NON-EXEMPT	200	80	5		11/24/1991	35	100		191911	-12266804.23	4148045.753	
808211	A18018034DAB	BRYAN & CASSYDE JOLLEY	NON-EXEMPT					8/7/2001				213547	-12291512.63	4152254.341	
808212	A18018034DAB	BRYAN & CASSYDE JOLLEY	NON-EXEMPT					8/7/2001				213548	-12291512.63	4152254.341	
808461	A18019017BCA	MARCI A. & JOSEPH M. ZABADAL	EXEMPT					5/15/2003				210851	-12284840.21	4158758.198	
808706	A17020010BCC	DON E OR JEANNE E HUNSAKER	EXEMPT	100	30	6		11/2/2004				208526	-12269140.16	4148655.426	
809098	A17020005000	JOHN & CAROLYN NATCHER	EXEMPT									208173	-12272271.53	4150494.583	App dated 8/3/2006, late well registry
809311	A17019012ADD	JASON & CRYSTAL CASTILLO	EXEMPT					1/25/2009				211293	-12275398.33	4148598.876	
810061	A17020010CDC	RICK & TWYLA TAYLOR	EXEMPT	200	200	6		4/7/2019	70	25		210172	-12268651.81	4147671.399	
810208	A18019016CCD	ELDON LARSEN	NON-EXEMPT					2/16/2021				212503	-12282799.12	4157527.382	
810300	A18019035ADA	ARIZONA PUBLIC SERVICE	EXEMPT	450	450	10		12/7/2021	30			214055	-12277351.5	4152840.575	
810301	A18019023DAD	ARIZONA PUBLIC SERVICE	EXEMPT	550	550	16		12/7/2021	50			214056	-12277342.9	4156056.954	
901893	A18019016CCB	ARIZONA DEPARTMENT OF TRANSPORTATION	ENV - PIEZOMETER	30	30	2	X	3/16/2005	20		A	207972	-12283048.17	4157772.756	
903874	A17020003AAD	ARIZONA DEPARTMENT OF TRANSPORTATION	ENV - PIEZOMETER	30	30	2	X	12/20/2005	13		A	206113	-12267406.17	4151134.682	
904175	A17019010BAD	SAGE A. & DEBORAH D. SCHOLER	EXEMPT	593	593	7	X	2/6/2006	465	18	X	204097	-12280320.4	4149103.66	
905032	A18019016ACD	SPARTA INVESTMENTS INC.	ENV - MONITOR					6/16/2006				204152	-12281817.49	4158521.45	
905034	A18019016DCA	SPARTA INVESTMENTS, INC.	ENV - MONITOR					6/16/2006				204154	-12281814.39	4157780.435	
905035	A18019016DCA	SPARTA INVESTMENTS, INC.	ENV - MONITOR					6/16/2006				204155	-12281814.39	4157780.435	
905036	A18019016DCA	SPARTA INVESTMENTS, INC.	ENV - MONITOR					6/16/2006				204530	-12281814.39	4157780.435	
905037	A18019016DCA	SPARTA INVESTMENTS, INC.	ENV - MONITOR					6/16/2006				204531	-12281814.39	4157780.435	
905038	A18019016DCA	SPARTA INVESTMENTS, INC.	ENV - MONITOR					6/16/2006				204532	-12281814.39	4157780.435	
906362	A18019036CCC	ARIZONA PUBLIC SERVICE	NON-EXEMPT					2/1/2007				205022	-12277118.32	4151609.877	
906363	A18019036DDC	ARIZONA PUBLIC SERVICE	NON-EXEMPT					2/1/2007				205023	-12275636.65	4151615.094	
906364	A18019035AAB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	481	470	20	X	2/1/2007	30			205024	-12277593.24	4153331.989	
906365	A18019036BBA	ARIZONA PUBLIC SERVICE	NON-EXEMPT	500	470	17	X	2/1/2007	34			205025	-12276853.31	4153336.496	
906812	A18019036DDD	ARIZONA PUBLIC SERVICE	NON-EXEMPT					4/12/2007				205465	-12275390.5	4151615.746	
906917	A18019023CCD	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL					5/4/2007				207092	-12278839.11	4155550.782	
907167	A18019023DDD	ARIZONA PUBLIC SERVICE	NON-EXEMPT					6/11/2007				204664	-12277340.42	4155562.228	
907560	A17019011ABD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	400	400	5	X	8/7/2007				204699	-12277882.64	4149119.712	
907561	A18019026CCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	500	500	8	X	8/7/2007	35			204700	-12279079.53	4153571.398	
907562	A17019002AAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	251	250	5	X	8/7/2007				204701	-12277367.08	4151360.721	
907563	A17019002AAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	502	500	9	X	8/7/2007	66			204702	-12277367.08	4151360.721	
907565	A18019034DBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	500	500	5	X	8/7/2007				205089	-12279812.11	4152329.008	
907567	A18019036BCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	500	500	5	X	8/7/2007	38			205091	-12277107.19	4152595.216	
907571	A17019002BBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	500	500	5	X	8/7/2007				205095	-12279071.05	4151343.362	
907572	A17019004ADC	ARIZONA PUBLIC SERVICE	NON-EXEMPT	530	520	21	X	8/7/2007	89			205096	-12281537.68	4150581.827	
907659	A17019010ADD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	510	500	21	X	8/23/2007	129			206335	-12279350.03	4148609.899	
907660	A17019002BBB	ARIZONA PUBLIC SERVICE	NON-EXEMPT	500	490	21	X	8/23/2007	67			206336	-12279071.05	4151343.362	
907676	A18019016CBD	SPARTA INVESTMENTS	ENV - MONITOR	16	16	8	X	8/27/2007	0			206728	-12282802.07	4158022.198	
907677	A18019016CBD	SPARRA INVESTMENTS	ENV - MONITOR	40	40	2	X	8/27/2007	25			206729	-12282802.07	4158022.198	
907678	A18019016CBD	SPARTA INVESTMENTS	ENV - MONITOR	31	30	8	X	8/27/2007	25			206730	-12282802.07	4158022.198	
907679	A18019016CBD	SPARTA INVESTMENTS	ENV - MONITOR	31	30	8	X	8/27/2007	25			206731	-12282802.07	4158022.198	
907680	A18019016CBD	SPARTA INVESTMENTS	ENV - MONITOR	31	30	8	X	8/27/2007	25			206732	-12282802.07	4158022.198	
907681	A18019016CBD	SPARTA INVESTMENTS	ENV - MONITOR	16	16	8	X	8/27/2007	0			206733	-12282802.07	4158022.198	
907834	A17019002CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	500	500	5	X	9/21/2007	90			202698	-12278852.81	4149603.831	
907835	A17019004CBC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	500	500	5	X	9/21/2007	108			202699	-12283041.98	4150079.053	
907836	A17019010BBC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	500	500	5	X	9/21/2007	113			202700	-12281052.23	4149102.538	
907883	A17019002ADD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	360		8	X	9/28/2007				203505	-12277378.31	4150615.384	
907990	A17019002ADD	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	360		8	X	10/17/2007				205120	-12277378.31	4150615.384	
908367	A17019002DCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	505	500	5	X	1/18/2008	90			204353	-12278123.1	4149612.166	
908486	A18019016DBC	SPARTA INVESTMENTS	ENV - MONITOR	30	30	8	X	2/8/2008	25			206388	-12282062.09	4158025.827	
908668	A18020033DDC	PACIFIC HOLT CORP.	NON-EXEMPT	300	300	8	X	3/11/2008	72			202765	-12269647.26	4151631.044	
908742	A17019002CCD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	500	490	21	X	3/27/2008	91			203970	-12278852.81	4149603.831	
909085	A18019022CBC	AZTEC LAND & CATTLE CO LTD.	SPCL - GEOTECHNICAL	90		7	X	5/23/2008			A	203585	-12281068.15	4156055.977	
909086	A18019016BCD	THRIFTWAY MARKETING	ENV - MONITOR	32	30	2	X	5/23/2008	20			203586	-12282805.03	4158517.035	
909087	A18019016BCD	THRIFTWAY MARKETING	ENV - MONITOR					5/23/2008				203587	-12282805.03	4158517.035	
909088	A18019016CBD	THRIFTWAY MARKETING	ENV - MONITOR	30	30	2	X	5/23/2008	20			203588	-12282802.07	4158022.198	
909089	A18019016CBD	THRIFTWAY MARKETING	ENV - MONITOR	35	35	2	X	5/23/2008	20			203589	-12282802.07	4158022.198	
909090	A18019016CBD	THRIFTWAY MARKETING	ENV - MONITOR	32	30	2	X	5/23/2008	20			203590	-12282802.07	4158022.198	
909091	A18019016CBD	THRIFTWAY MARKETING	ENV - MONITOR	32	30	2	X	5/23/2008	20			203591	-12282802.07	4158022.198	
909092	A18019016CBD	THRIFTWAY MARKETING	ENV - MONITOR	35	35	2	X	5/23/2008	20			203592	-12282802.07	4158022.198	
909093	A18019016CBD	THRIFTWAY MARKETING	ENV - MONITOR	20	20	2	X	5/23/2008				203593	-12282802.07	4158022.198	
909094	A18019016DAC	THRIFTWAY MARKETING	ENV - MONITOR	35	35	2	X	5/23/2008	20			203594	-12281568.76	4158028.628	
909096	A18019016DAC	THRIFTWAY MARKETING	ENV - MONITOR	35	35	2	X	5/23/2008	20			203596	-12281568.76	4158028.628	
909097	A18019016DAC	THRIFTWAY MARKETING	ENV - MONITOR					5/23/2008				203597	-12281568.76	4158028.628	
909098	A18019016DAC	THRIFTWAY MARKETING	ENV - MONITOR	32	32		X	5/23/2008	20			203598	-12281568.76	4158028.628	
909099	A18019016CBD	THRIFTWAY MARKETING	ENV - MONITOR	32	32	2	X	5/23/2008	20			203599	-12282802.07	4158022.198	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report St	OBJECTID	x	y	WSP Comments
909100	A18019016CBD	THRIFTWAY MARKETINGT	ENV - MONITOR	32	32	2	X	5/23/2008	20			203600	-12282802.07	4158022.198	
909102	A18019016CBD	THRIFTWAY MARKETING	ENV - MONITOR					5/23/2008				203601	-12282802.07	4158022.198	
909103	A18019016CBD	THRIFTWAY MARKETING	ENV - SOIL VAPOR EXTRACTION / MONITORING	20	20		X	5/23/2008				203602	-12282802.07	4158022.198	
909105	A18019016CBD	THRIFTWAY MARKETING	ENV - SOIL VAPOR EXTRACTION / MONITORING	18	18	2	X	5/23/2008				202365	-12282802.07	4158022.198	
909106	A18019016CBD	THRIFTWAY MARKETING	ENV - SOIL VAPOR EXTRACTION / MONITORING	18	18	2	X	5/23/2008				202366	-12282802.07	4158022.198	
909401	A17020010CCB	RONALD LEE SMITH	EXEMPT	160	160	6	X	7/11/2008	67	25	X	220567	-12269140.8	4147916.315	
909605	A18019016DAC	THRIFTWAY MARKETING	ENV - MONITOR	32	30	2	X	8/20/2008	20			223768	-12281568.76	4158028.628	
909750	A17020009ADA	HEATHER SMITH	EXEMPT	160	160	5	X	9/17/2008	35	35	X	226132	-12269388.59	4148900.905	
909768	A17020007BBA	GERALD BRIGGS	EXEMPT	160	160	6	X	9/18/2008	66			226519	-12274895.55	4149336.804	
909797	A17020006CBC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	400	400	5	X	9/24/2008	28			220582	-12275146.14	4150093.767	
909801	A18019022CCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	535	530	5	X	9/25/2008	30			220586	-12281066.73	4155561.258	
909802	A17020006CBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	410	400	5	X	9/25/2008	64			220587	-12275145.64	4150348.338	
909803	A18019028CCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	510	500	5	X	9/25/2008	29			220588	-12283027.68	4153559.067	
909987	A18020030BBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	290	280	5	X	10/30/2008				223775	-12274882.77	4155321.559	
909988	A18020030BBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	385	380	5	X	10/30/2008	140			223776	-12274882.77	4155321.559	
910007	A18019025CDC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	60		10	X	11/6/2008				223795	-12276605.72	4153584.467	
910008	A18019026DAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	90	65	5	X	11/6/2008	30			223796	-12277592.47	4154322.451	
910009	A18019023DDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	75	70	5	X	11/6/2008	45			223797	-12277340.42	4155562.228	
910010	A18019023DDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	180	170	5	X	11/6/2008	45			223798	-12277340.42	4155562.228	
910011	A18019026DBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	70	60	8	X	11/6/2008	38			223799	-12277841.13	4154320.543	
910012	A18019035AAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	46	40	8	X	11/6/2008	34			224170	-12277345.82	4153333.899	
910013	A18019025BDA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	80	70	5	X	11/6/2008	34			224171	-12276357.87	4154820.498	
910248	A18019015CDA	LOVE'S COUNTRY STORES	ENV - MONITOR	20	20		X	1/9/2009				221411	-12280330.82	4157782.59	
910249	A18019015CDA	LOVE'S COUNTRY STORES	ENV - MONITOR	22			X	1/9/2009				221412	-12280330.82	4157782.59	
910250	A18019015CDA	LOVE'S COUNTY STORES	ENV - MONITOR	20			X	1/9/2009				221413	-12280330.82	4157782.59	
910278	A18019016CBD	ROSS ROGERS	ENV - MONITOR				I	1/15/2009				221817	-12282802.07	4158022.198	
910279	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221818	-12282802.07	4158022.198	
910280	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221819	-12282802.07	4158022.198	
910281	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221820	-12282802.07	4158022.198	
910282	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221821	-12282802.07	4158022.198	
910283	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221822	-12282802.07	4158022.198	
910284	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221823	-12282802.07	4158022.198	
910285	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221824	-12282802.07	4158022.198	
910286	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221825	-12282802.07	4158022.198	
910287	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221826	-12282802.07	4158022.198	
910288	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221827	-12282802.07	4158022.198	
910289	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221828	-12282802.07	4158022.198	
910290	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4		1/15/2009	18			221829	-12282802.07	4158022.198	
910291	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221830	-12282802.07	4158022.198	
910292	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221831	-12282802.07	4158022.198	
910293	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			221832	-12282802.07	4158022.198	
910294	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222206	-12282802.07	4158022.198	
910295	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222207	-12282802.07	4158022.198	
910296	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222208	-12282802.07	4158022.198	
910297	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222209	-12282802.07	4158022.198	
910298	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222210	-12282802.07	4158022.198	
910300	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222212	-12282802.07	4158022.198	
910301	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222213	-12282802.07	4158022.198	
910302	A18019016CBD	ROSS ROGERS	ENV - MONITOR	30	30		X	1/15/2009	18			222214	-12282802.07	4158022.198	
910303	A18019016CBD	ROSS ROGERS	ENV - MONITOR	30	30		X	1/15/2009	18			222215	-12282802.07	4158022.198	
910304	A18019016CBD	ROSS ROGERS	ENV - MONITOR	30	30		X	1/15/2009	18			222216	-12282802.07	4158022.198	
910305	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222217	-12282802.07	4158022.198	
910306	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222218	-12282802.07	4158022.198	
910307	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222219	-12282802.07	4158022.198	
910308	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/15/2009	18			222220	-12282802.07	4158022.198	
910312	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32		X	1/16/2009	18			222224	-12282802.07	4158022.198	
910313	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32		X	1/16/2009	18			222225	-12282802.07	4158022.198	
910314	A18019016CBD	ROSS ROGERS	ENV - MONITOR	30	30		X	1/16/2009	18			222226	-12282802.07	4158022.198	
910315	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/16/2009	18			222227	-12282802.07	4158022.198	
910316	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/16/2009	18			222228	-12282802.07	4158022.198	
910317	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/16/2009	18			222229	-12282802.07	4158022.198	
910318	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/16/2009	18			222230	-12282802.07	4158022.198	
910319	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32		X	1/16/2009	18			222231	-12282802.07	4158022.198	
910320	A18019016CBD	ROSS ROGERS	ENV - MONITOR	32	32	4	X	1/16/2009	18			222606	-12282802.07	4158022.198	
910321	A18019016BCD	ROSS ROGERS	ENV - MONITOR	32	32		X	1/16/2009	18			222607	-12282805.03	4158517.035	
910324	A17020006BAD	ARIZONA PUBLIC SERVICE	NON-EXEMPT	400	240	21	X	1/19/2009	29			222610	-12274391.56	4151113.888	
910623	A18019023ACC	ARIZONA DEPARTMENT OF TRANSPORTATION	ENV - PIEZOMETER	41	41	2	X	4/8/2009	25		A	221029	-12278093.19	4156547.217	

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Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report Sta	OBJECTID	x	y	WSP Comments
910624	A18019023000	ARIZONA DEPARTMENT OF TRANSPORTATION	SPCL - GEOTECHNICAL	40		8	X	4/8/2009	25		A	221030	-12278218.17	4156421.966	
910717	A17020011000	CITY OF HOLBROOK	SPCL - GEOTECHNICAL	45		8	X	5/11/2009	20		A	222253	-12266307.26	4148540.998	
910718	A17020002000	CITY OF HOLBROOK	SPCL - GEOTECHNICAL	45		8	X	5/11/2009	23		A	222254	-12266305.58	4150521.15	
910723	A17020007DAC	DANIELLE FERNIZA	EXEMPT	200	100	6	X	5/11/2009	95			222633	-12273628.16	4148117.125	
911102	A17020002000	CITY OF HOLBROOK	SPCL - GEOTECHNICAL					9/11/2009				221880	-12266305.58	4150521.15	
911103	A17020002000	CITY OF HOLBROOK	SPCL - GEOTECHNICAL					9/11/2009				222257	-12266305.58	4150521.15	
912020	A17020009BCA	PENFIELD, CHARLENE PENFIELD, ALVIN	EXEMPT	155	155	5	X	5/5/2010	25	25	X	223903	-12270888.06	4148894.211	
912635	A17019012DAA	JESSIE AARYN BLINK	EXEMPT	363	100	6	X	10/18/2010	83			220765	-12275397.92	4148351.68	
912800	A18019013CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR				I	12/27/2010				223174	-12276625.42	4158288.061	
913769	A18019025BAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	68	30		X	11/3/2011	28			225979	-12276357.01	4155315.167	
913770	A18019023CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	122	59		X	11/3/2011	39			225980	-12278591.11	4156296.011	
913771	A18019025DBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR				X	11/3/2011				225981	-12275868.02	4154327.192	
913772	A18019022DDB	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	183			X	11/3/2011			A	225982	-12279586.12	4155797.216	
913983	A18019023CBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					1/16/2012				222843	-12279090.46	4156292.161	
913984	A18019023CBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					1/16/2012				222844	-12279090.46	4156292.161	
913985	A18019023CBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					1/16/2012				222845	-12279090.46	4156292.161	
913993	A18019013DDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR					1/17/2012				222852	-12275393.22	4157547.938	
914942	A18018014BDB	ARIZONA DEPARTMENT OF TRANSPORTATION	ENV - PIEZOMETER	60	60	2	X	11/14/2012	23			224493	-12290530.55	4158705.331	
915393	A17020007BCC	BRYANT PETERSEN	NON-EXEMPT	220	220	6	X	3/28/2013	68	10	X	225690	-12275146.78	4148597.036	
916857	A17020010DCB	DAVID & DEBBIE SHUMWAY	EXEMPT					4/30/2014				215522	-12268159.81	4147919.568	
917009	A18019023DCC	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL				X	6/3/2014			A	217884	-12278089.65	4155556.53	
917515	A18019022D00	BNSF RAILWAYS	SPCL - GEOTECHNICAL	100		8	X	11/5/2014	24		A	218693	-12279709.35	4155922.973	
917536	A18019025000	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	61		8	X	11/12/2014	32		A	218712	-12276236.81	4154449.855	
917606	A18019023ACC	ARIZONA DEPARTMENT OF TRANSPORTATION	ENV - PIEZOMETER	60	60	2	X	12/7/2014	30		A	219890	-12278093.19	4156547.217	
917710	A18019023000	ARIZONA DEPARTMENT OF TRANSPORTATION	SPCL - GEOTECHNICAL	40			X	1/13/2015	30		A	215159	-12278218.17	4156421.966	
918505	A17020009ACD	TYLER KEE STINGLEY	EXEMPT	175	175	7	X	8/5/2015	35	80	X	214406	-12269887.92	4148652.717	
918535	A17020007ABD	SHERRA LOUISE WAHL	EXEMPT	180	180	8	X	8/13/2015	35			214803	-12273885.78	4149095.59	
918638	A18019025CDC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	57	55	5	X	9/10/2015	38			216386	-12276605.72	4153584.467	
918639	A18019036ADB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	35	20	4	X	9/10/2015				216387	-12275627.99	4152847.735	
918640	A18019025ADD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	14	12	4	X	9/10/2015				216388	-12275376.86	4154574.608	
918641	A18020030CBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	32	29	4	X	9/10/2015				216389	-12275130.35	4154330.376	
918645	A18020030CAC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	13			X	9/10/2015				216390	-12274635.45	4154087.987	
918646	A18019013CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	370	365	5	X	9/10/2015				216391	-12276625.42	4158288.061	
918647	A18019013CBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	425	423	5	X	9/10/2015	197			216392	-12277115.21	4158286.68	
918648	A18019013BCA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	420	415	5	X	9/10/2015	195			216393	-12276876.49	4158781.021	
918649	A18019013BAC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	450	445	5	X	9/10/2015	225			216394	-12276634.03	4159029.148	
918651	A18019023AAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/10/2015				216395	-12277597.97	4157294.413	
918657	A18019024BBC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	83	70	4	X	9/13/2015				216399	-12277100.95	4157049.604	
918658	A18019023CBD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	97	84	5	X	9/13/2015	42			216400	-12278840.07	4156045.497	
918659	A18019023CBC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	100	85	5	X	9/13/2015	42			216401	-12279090.11	4156043.571	
918660	A18019023CBC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	100	85	5	X	9/13/2015	41			216402	-12279090.11	4156043.571	
918661	A18019023CBC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	100	85	5	X	9/13/2015	41			216403	-12279090.11	4156043.571	
918701	A18019013DDB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	60	55	5	X	9/29/2015				217185	-12275640.76	4157794.691	
919328	A17020009ACC	DOREEN JOHNSON	EXEMPT	250	250	6	X	4/3/2016	40	30	X	219609	-12270137.3	4148652.212	
919786	A18019023BAD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	60	60	4	X	8/10/2016	40			220399	-12278343.92	4157041.29	
919787	A18019023BCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	60	60	4	X	8/10/2016	40			220400	-12279090.7	4156539.53	
919788	A18019023CCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	60	60	4	X	8/10/2016	40			220401	-12279089.64	4155547.635	
919789	A18019026AAD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	60	60	4	X	8/10/2016	42			220402	-12277341.25	4155066.323	
919790	A18019024CDD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	60	60	4	X	8/10/2016	42			220403	-12276356.95	4155562.512	
919791	A18019023DAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	120	118	4	X	8/10/2016	42			220404	-12277593.37	4156303.652	
920353	A18019021CCB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	69	60	4	X	2/2/2017	23			216493	-12283040.22	4155808.387	
920467	A17020010BCC	MICHEAL SERNA	EXEMPT	160	160	5	X	4/5/2017	68			218089	-12269140.16	4148655.426	
921016	A18019022DDB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	126	119	4	X	10/24/2017	50			214559	-12279586.12	4155797.216	
921042	A18019022DDB	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	66			X	11/2/2017	60		A	214957	-12279586.12	4155797.216	
921058	A18019026BBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	62	60	2	X	11/7/2017	37			214973	-12278839.25	4155302.213	
921059	A18019026BBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	62	60	2	X	11/7/2017	36			215350	-12278839.25	4155302.213	
921060	A18019023CCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR					11/7/2017				215351	-12279089.64	4155547.635	
921061	A18019023CCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR					11/7/2017				215352	-12279089.64	4155547.635	
921392	A18019026BB0	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	51		6	X	2/27/2018				214183	-12278963.59	4155178.187	
921515	A18020014BCB	JAMES CASEY MURPH	EXEMPT	160	160		X	4/1/2018	60			215792	-12267157.33	4158802.48	
922299	A18019025DAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	25	19	4	X	11/6/2018	14			216224	-12275622.54	4154327.854	

ADWR Well Registry Review Q4 2024

Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report St	OBJECTID	x	y	WSP Comments
922300	A18020030CBC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	60	49	4	X	11/6/2018	29			216225	-12275130.57	4154083.059	
922301	A18019025DDB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	50	45		X	11/6/2018	34			216226	-12275623.06	4153834.45	
922954	A18019023CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	86	70	4	X	5/9/2019	46			234817	-12278839.11	4155550.782	
922955	A18019023CCC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	96	82	4	X	5/9/2019	46			234818	-12279089.64	4155547.635	
923204	A18019015DCA	LOVES TRAVEL STOP AND COUNTRY STORES, INC	ENV - MONITOR					7/23/2019				232440	-12279836.32	4157780.406	
923205	A18019015DCA	LOVES TRAVEL STOP & COUNTRY STORE, INC.	ENV - MONITOR					7/23/2019				232441	-12279836.32	4157780.406	
923206	A18019015DCA	LOVES TRAVEL STOP & COUNRY STORE, INC.	ENV - MONITOR					7/23/2019				232442	-12279836.32	4157780.406	
923207	A18019015DCA	LOVES TRAVEL SHOP & COUNTRY STORE, INC.	ENV - MONITOR					7/23/2019				232443	-12279836.32	4157780.406	
923346	A18019025BAD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	50			X	9/8/2019				234828	-12276357.57	4155067.83	
923582	A18019024BBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	77	75	3	X	11/5/2019				232066	-12277102.36	4157296.998	
923598	A18019014DDA	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	62			X	11/11/2019	9		A	232459	-12277354.28	4157791.134	
923618	A18019024BBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	53		3	X	11/17/2019				232851	-12277102.36	4157296.998	
923825	A17020010CCB	CLARK L COLE	EXEMPT	170	170	6	X	1/20/2020				235647	-12269140.8	4147916.315	
923973	A18019020000	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	40			X	3/1/2020			A	231681	-12284187.05	4156413.51	
924142	A18018010000	ARIZONA DEPARTMENT OF ENVIRONMNENTAL QUALITY	SPCL - GEOTECHNICAL					4/5/2020				234089	-12292126.73	4160323.06	
925215	A18020030CBD	ARIZONA PUBLIC SERVICE	SPCL - OTHER	55	52	6	X	12/1/2020				232169	-12274882.89	4154084.913	
925216	A18020030CBD	ARIZONA PUBLIC SERVICE	SPCL - OTHER	30	24	6	X	12/1/2020				232544	-12274882.89	4154084.913	
925217	A18020030CBD	ARIZONA PUBLIC SERVICE	SPCL - OTHER	55	55	6	X	12/1/2020				232545	-12274882.89	4154084.913	
925218	A18020030CBD	ARIZONA PUBLIC SERVICE	SPCL - OTHER	55	53	6	X	12/1/2020				232546	-12274882.89	4154084.913	
925219	A18020030000	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL					12/1/2020				232547	-12274262.53	4154463.555	
925220	A18019025000	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL					12/1/2020				232548	-12276236.81	4154449.855	
925226	A18019023CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	71	70	4	X	12/3/2020	40			232554	-12278839.11	4155550.782	
925227	A18019023CDC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	71	70	4	X	12/3/2020	40			232555	-12278589.33	4155552.704	
925727	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC.	ENV - MONITOR	36	36	2	X	3/10/2021	11			234175	-12279836.32	4157780.406	ADWR records sent to APS in 2021 Q3
925728	A18019015DCA	LOVES TRAVELS STOPS & COUNTRY STORES, INC	ENV - MONITOR	36	36	2	X	3/10/2021				234176	-12279836.32	4157780.406	ADWR records sent to APS in 2021 Q3
925729	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	ENV - MONITOR	36	36	2	X	3/10/2021				234177	-12279836.32	4157780.406	ADWR records sent to APS in 2021 Q3
925730	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	ENV - MONITOR	35	36	2	X	3/10/2021	6			234178	-12279836.32	4157780.406	ADWR records sent to APS in 2021 Q3
926097	A18019023AAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	55	55	6	X	4/21/2021	2			233402	-12277597.97	4157294.413	
926099	A18019023AAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	130	130	6	X	4/21/2021	4			233404	-12277349.12	4157296.313	
926100	A18019023AAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	84	81	6	X	4/21/2021	19			233405	-12277349.12	4157296.313	
926101	A18019013CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR					4/21/2021				233406	-12276861.39	4157545.109	
926102	A18019013CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	29	25	6	X	4/21/2021	10			233407	-12276861.39	4157545.109	
926103	A18019023ADC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	52	26	4	X	4/21/2021				233408	-12277594.56	4156551.028	
926104	A18019023CAC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	64	64	4	X	4/21/2021	35			233409	-12278590.52	4156047.42	
926105	A18019023DAC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	107	97	4	X	4/21/2021	29			233787	-12277592.2	4156055.057	
926106	A18019023DAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	177	165	4	X	4/21/2021	27			233788	-12277593.37	4156303.652	
926108	A18019022DBD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	67	48	4	X	4/21/2021	37			233790	-12279833.32	4156047.51	
926109	A18020030BDB	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	88	88	2	X	4/21/2021	21			233791	-12274635.86	4154831.187	
926110	A18020030BDB	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	50	47	2	X	4/21/2021	20			233792	-12274635.86	4154831.187	
926111	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - PIEZOMETER	52	50	2	X	4/21/2021	19			233793	-12274882.89	4154084.913	
926115	A18020030CBD	ARIZONA PUBLIC SERVICE	SPCL - OTHER	54	54	6	X	4/21/2021	22			233796	-12274882.89	4154084.913	
926116	A18020030CBD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	19	18	4	X	4/21/2021	1			233797	-12274882.89	4154084.913	
926120	A18020030CCB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	27	19	4	X	4/22/2021	4			233801	-12275130.65	4153836.971	
926240	A18019013CCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR	51	47	6	X	5/13/2021	10			235787	-12276861.39	4157545.109	
926398	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC. (ATTN: MICHAEL KEY)	ENV - MONITOR	35	36	2	X	6/8/2021	24			231829	-12279836.32	4157780.406	ADWR records sent to APS in 2021 Q3
926399	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: MICHAEL KEY)	ENV - MONITOR	35	36	2	X	6/8/2021	24			231830	-12279836.32	4157780.406	ADWR records sent to APS in 2021 Q3
926812	A18019024BBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	31	30	6	X	9/4/2021	12			231859	-12277102.36	4157296.998	
926813	A18019024BBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	26	26	6	X	9/4/2021	18			231860	-12276857.67	4157297.693	
926814	A18019024BBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	125	69	3	X	9/4/2021	62			231861	-12277102.36	4157296.998	
926815	A18019024BBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR	125	66	3	X	9/4/2021	19			231862	-12276857.67	4157297.693	
926816	A18019024BDC	ARIZONA PUBLIC SERVICE	ENV - MONITOR	65	65	4	X	9/4/2021	23			231863	-12276608.41	4156554.989	
927409	A18019025AAD	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL					12/9/2021				234679	-12275376.33	4155068.044	
927464	A18019015DCA	LOVES TRAVEL STOPS & SOUNTRY STORE, INC	ENV - MONITOR				X	12/27/2021				235480	-12279836.32	4157780.406	Drill Records in ADWR Database as of Q1 2023
927465	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	ENV - MONITOR				X	12/27/2021				235481	-12279836.32	4157780.406	Drill Records in ADWR Database as of Q1 2023
927466	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	ENV - MONITOR				X	12/27/2021				235482	-12279836.32	4157780.406	Drill Records in ADWR Database as of Q1 2023

ADWR Well Registry Review Q4 2024

Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report St	OBJECTID	x	y	WSP Comments
927467	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	ENV - MONITOR				X	12/27/2021				235483	-12279836.32	4157780.406	Drill Records in ADWR Database as of Q1 2023
927468	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	ENV - MONITOR				X	12/27/2021				235484	-12279836.32	4157780.406	Drill Records in ADWR Database as of Q1 2023
927469	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	ENV - MONITOR				X	12/27/2021				235485	-12279836.32	4157780.406	Drill Records in ADWR Database as of Q1 2023
928235	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC (CHRIS WELDON	ENV - MONITOR	15	15	2	X	5/31/2022	9			234319	-12279836.32	4157780.406	ADWR Records sent to APS in 2022 Q4
928236	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC (CHRIS WELDON)	ENV - MONITOR	15	15	2	X	5/31/2022	9			234320	-12279836.32	4157780.406	ADWR Records sent to APS in 2022 Q4
928237	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORES, INC	ENV - MONITOR	35	35	2	X	5/31/2022	20			234321	-12279836.32	4157780.406	ADWR Records sent to APS in 2022 Q4
929456	A18019026000	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	50			X	3/7/2023	35		A	228691	-12278212.63	4154443.16	Well Abandonment Completion Report filed on March 31st, 2023
929461	A18019023000	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL					3/8/2023				228696	-12278218.17	4156421.966	Drilling card has been filed and expires on 3/9/2024.
929527	A18019029000	AZTEC LAND & CATTLE COMPANY	SPCL - GEOTECHNICAL	50	50	8	X	3/27/2023			A	229071	-12284166.62	4154426.032	Logs state these are all geotechnical borings that were abandoned after drilling
929528	A18019028000	AZTEC LAND & CATTLE COMPANY	SPCL - GEOTECHNICAL	50	50	8	X	3/27/2023			A	229072	-12282170.54	4154437.326	Logs state these are all geotechnical borings that were abandoned after drilling
929529	A18019027000	AZTEC LAND & CATTLE COMPANY	SPCL - GEOTECHNICAL				X	3/28/2023				229073	-12280198.44	4154436.181	Logs state these are all geotechnical borings that were abandoned after drilling
929530	A18019022000	AZTEC LAND & CATTLE COMPANY	SPCL - GEOTECHNICAL	50	50	8	X	3/27/2023	26		A	229204	-12280203.43	4156421.108	Logs state these are all geotechnical borings that were abandoned after drilling
929675	A17020007BAA	GREG LONG	EXEMPT	160	160	5	X	5/2/2023	42			227321	-12274391.16	4149339.205	Drill Report submited to ADWR on 5/7/2024
929922	A18019016BDA	THRIFTWAY MARKETING CORPORATION	SPCL - GEOTECHNICAL	27				7/9/2023			A	229075	-12282312.49	4158766.066	Records sent to APS in Q2 2024
930125	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN CHRIS WELDON)	ENV - MONITOR	15	14	2	X	8/23/2023	13			227515	-12279836.32	4157780.406	Records sent to APS in Q2 2024
930126	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: CHRIS WELDON)	ENV - MONITOR	15	14	2	X	8/23/2023				227646	-12279836.32	4157780.406	Records sent to APS in Q2 2024
930127	A18019015DCA	LOVES TRAVEL STOPS & COUNTRY STORE, INC (ATTN: CHRIS WELDON)	ENV - MONITOR	15	14	2	X	8/23/2023	11			227647	-12279836.32	4157780.406	Records sent to APS in Q2 2024
930402	A18020030CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	55	48	1	X	10/24/2023				229419	-12274635.83	4154335.308	Records sent to APS in Q2 2024
930403	A18020030CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR	32	35	4	X	10/24/2023				229420	-12274635.83	4154335.308	Records sent to APS in Q2 2024
930404	A18020030CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR				X	10/24/2023				229421	-12274635.83	4154335.308	Records sent to APS in Q2 2024
930553	A18019013000	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL					12/13/2023				227541	-12276258.74	4158412.792	NOI received on 12/14/2023. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Well completion report has not been filed with ADWR by the time the Q3 2024 review was completed. Authorization expires 12/14/2024.
930554	A18019014000	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL					12/13/2023				227672	-12278231.74	4158403.627	NOI received on 12/14/2023. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Well completion report has not been filed with ADWR by the time the Q3 2024 review was completed. Authorization expires 12/14/2024.
930555	A18019013CBB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					12/13/2023				227673	-12277115.21	4158286.68	Drilling card issued for an environmental monitoring well. Well completion report has not been filed with ADWR by the time the Q3 2024 review was completed. Authorization expires 12/14/2024.
931199	A18019013CBC	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	65	65	6	X	5/30/2024			A	228994	-12277111.84	4158039.251	NOI received on 5/31/2024. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Authorization expires 5/31/2025.
931200	A18019014DDB	ARIZONA PUBLIC SERVICE	SPCL - GEOTECHNICAL	42	42	6	X	5/30/2024			A	228995	-12277602.16	4157789.227	NOI received on 5/31/2024. NOI specifies this is a geotechnical boring that will be abandoned after drilling. Authorization expires 5/31/2025.
931375	A18019025BBB	ARIZONA PUBLIC SERVICES	ENV - MONITOR					8/4/2024				227415	-12277093.14	4155315.563	NOI and Drilling Card received by ADWR as of 10/10/2024.
931376	A18019025CCC	ARIZONA PUBLIC SERVICES	ENV - MONITOR					8/4/2024				227416	-12277097.27	4153581.874	NOI and Drilling Card received by ADWR as of 10/10/2024.
931377	A18019025BBB	ARIZONA PUBLIC SERVICES	ENV - MONITOR					8/4/2024				227417	-12277093.14	4155315.563	NOI and Drilling Card received by ADWR as of 10/10/2024.
931378	A18019025DDD	ARIZONA PUBLIC SERVICES	ENV - MONITOR					8/4/2024				227418	-12275377.91	4153589.025	NOI and Drilling Card received by ADWR as of 10/10/2024.
931380	A18019025DDD	ARIZONA PUBLIC SERVICES	ENV - MONITOR					8/4/2024				227420	-12275377.91	4153589.025	NOI and Drilling Card received by ADWR as of 10/10/2024.
931406	A18019025CCC	ARIZONA PUBLIC SERVICES	ENV - MONITOR					8/8/2024				227574	-12277097.27	4153581.874	NOI and Drilling Card received by ADWR as of 10/10/2024.
931508	A18019023AD0	ARIZONA PUBLIC SERVICE (ATTN: RICHARD JACK)	SPCL - GEOTECHNICAL					9/4/2024				228115	-12277470.67	4156675.056	Geotechnical boring to be abandoned after drilling. NOI and Drilling Card received by ADWR as of 10/10/2024.
931563	A18020030BCB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228477	-12275130.06	4154823.803	NOI and Drilling Card received by ADWR as of 10/10/2024.
931564	A18020030BCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228478	-12274882.7	4154579.554	NOI and Drilling Card received by ADWR as of 10/10/2024.
931565	A18020030BCD	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228479	-12274882.7	4154579.554	NOI and Drilling Card received by ADWR as of 10/10/2024.
931566	A18020030CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228480	-12274635.83	4154335.308	NOI and Drilling Card received by ADWR as of 10/10/2024.
931567	A18020030CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228638	-12274635.83	4154335.308	NOI and Drilling Card received by ADWR as of 10/10/2024.
931568	A18020030CBA	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228639	-12274882.67	4154332.23	NOI and Drilling Card received by ADWR as of 10/10/2024.
931569	A18020030BBC	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228640	-12275129.85	4155069.912	NOI and Drilling Card received by ADWR as of 10/10/2024.
931570	A18020030BDC	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228641	-12274635.85	4154582.633	NOI and Drilling Card received by ADWR as of 10/10/2024.
931571	A18020030BDB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228642	-12274635.86	4154831.187	NOI and Drilling Card received by ADWR as of 10/10/2024.
931572	A18020030CAB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228643	-12274635.83	4154335.308	NOI and Drilling Card received by ADWR as of 10/10/2024.
931573	A18020030BCA	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228644	-12274882.72	4154826.884	NOI and Drilling Card received by ADWR as of 10/10/2024.
931574	A18020030BCA	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228645	-12274882.72	4154826.884	NOI and Drilling Card received by ADWR as of 10/10/2024.
931575	A18020030CAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228646	-12274388.39	4154338.377	NOI and Drilling Card received by ADWR as of 10/10/2024.
931576	A18020030CAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228647	-12274388.39	4154338.377	NOI and Drilling Card received by ADWR as of 10/10/2024.
931577	A18020030CAA	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228648	-12274388.39	4154338.377	NOI and Drilling Card received by ADWR as of 10/10/2024.
931578	A18020030CAC	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228649	-12274635.45	4154087.987	NOI and Drilling Card received by ADWR as of 10/10/2024.

ADWR Well Registry Review Q4 2024

Registry ID	Cadastral	Owner Name	Well Type	Well Dept	Casing Depth	Casing Diameter	Drill Log	Application Date	Water Level	Pump Rate	Completion Report Sta	OBJECTID	x	y	WSP Comments
931579	A18020030CAC	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228650	-12274635.45	4154087.987	NOI and Drilling Card received by ADWR as of 10/10/2024.
931580	A18020030CAC	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228651	-12274635.45	4154087.987	NOI and Drilling Card received by ADWR as of 10/10/2024.
931581	A18020030CDA	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228652	-12274388.01	4153841.294	NOI and Drilling Card received by ADWR as of 10/10/2024.
931582	A18020030CDA	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228653	-12274388.01	4153841.294	NOI and Drilling Card received by ADWR as of 10/10/2024.
931583	A18020030CDB	ARIZONA PUBLIC SERVICE	ENV - MONITOR					9/18/2024				228654	-12274635.44	4153839.45	NOI and Drilling Card received by ADWR as of 10/10/2024.

Notes:

New well added to ADWR registry in Q4 2024

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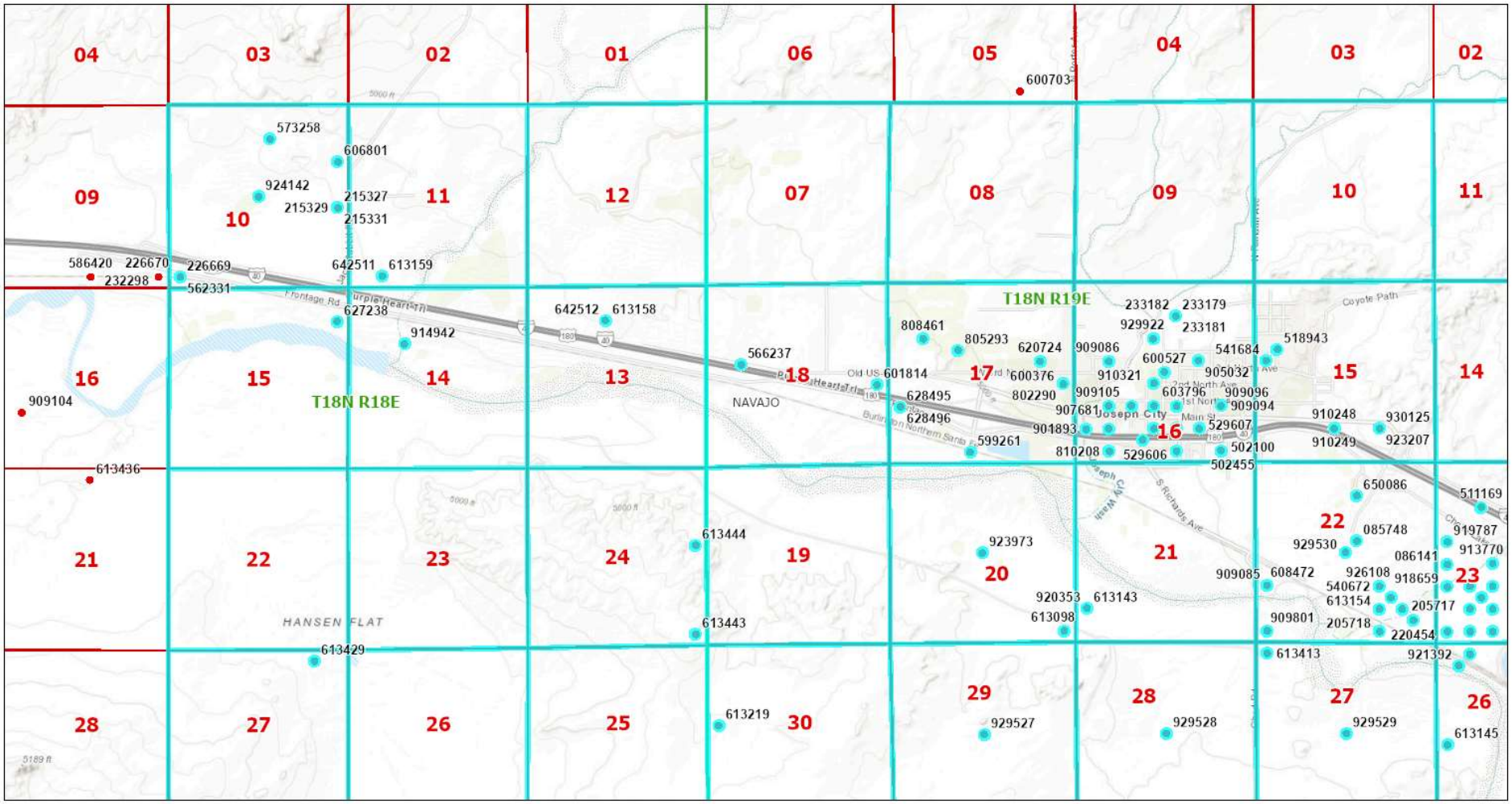

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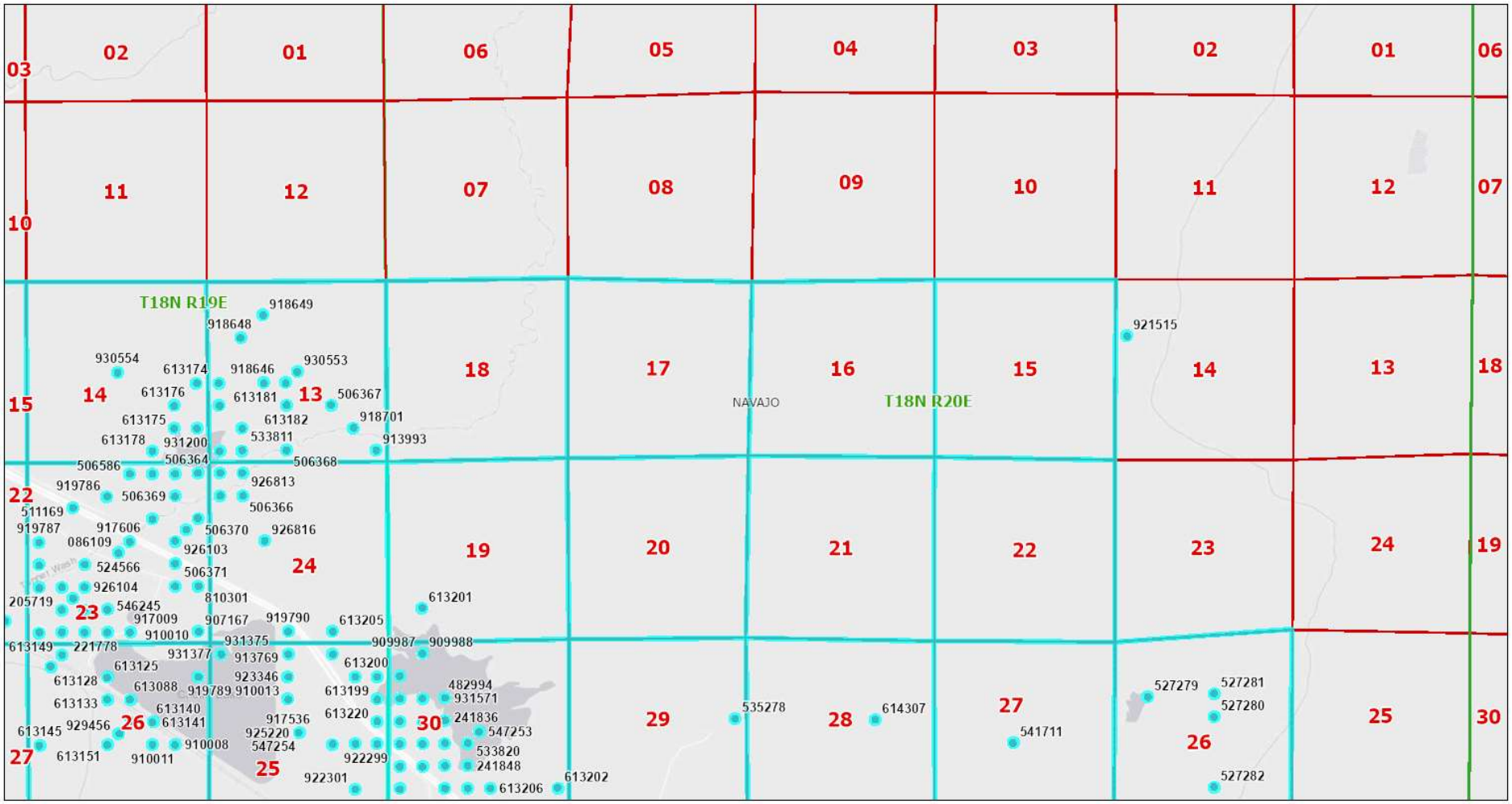

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Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, Esri, HERE

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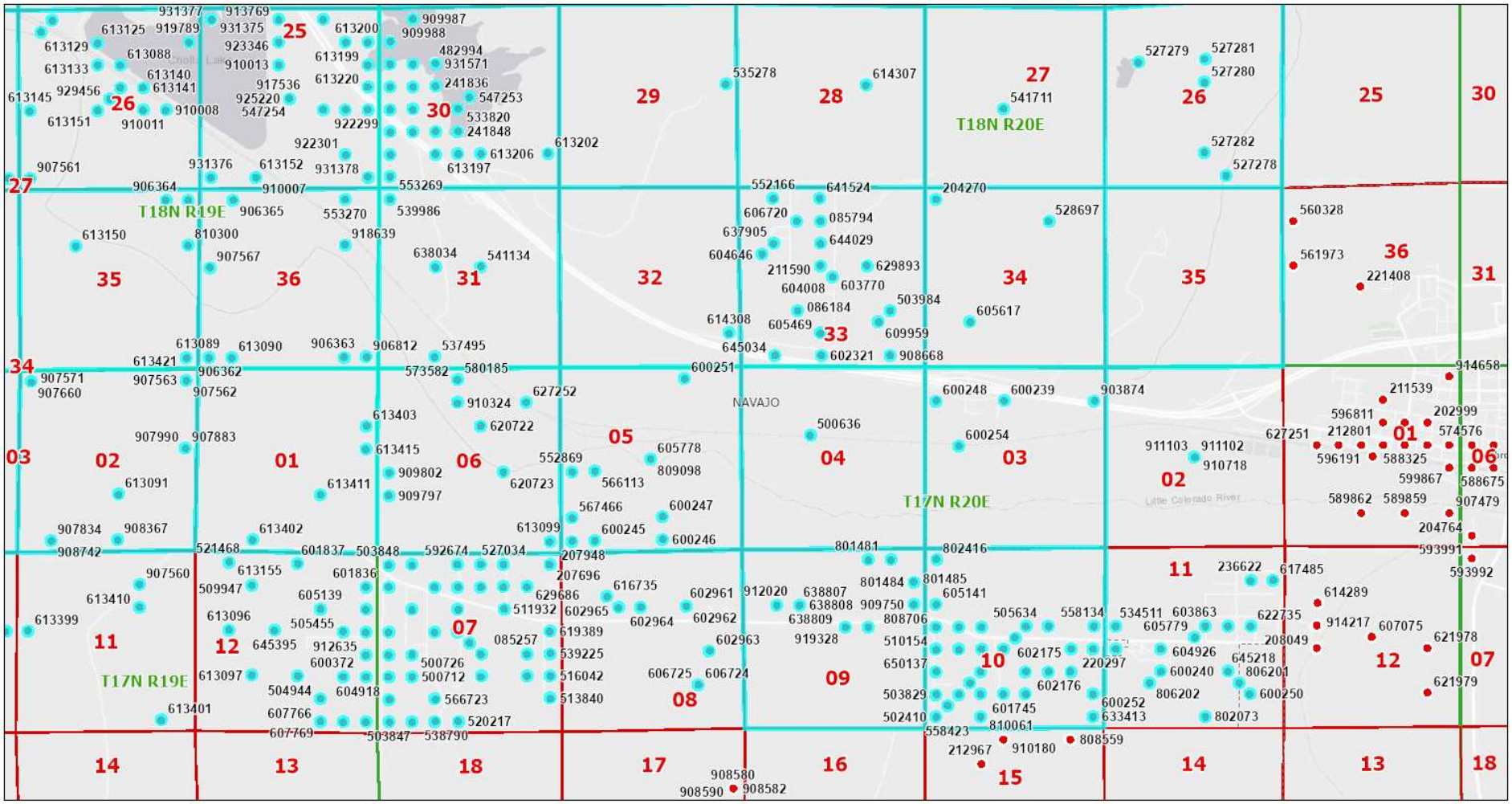

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Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, Esri, HERE

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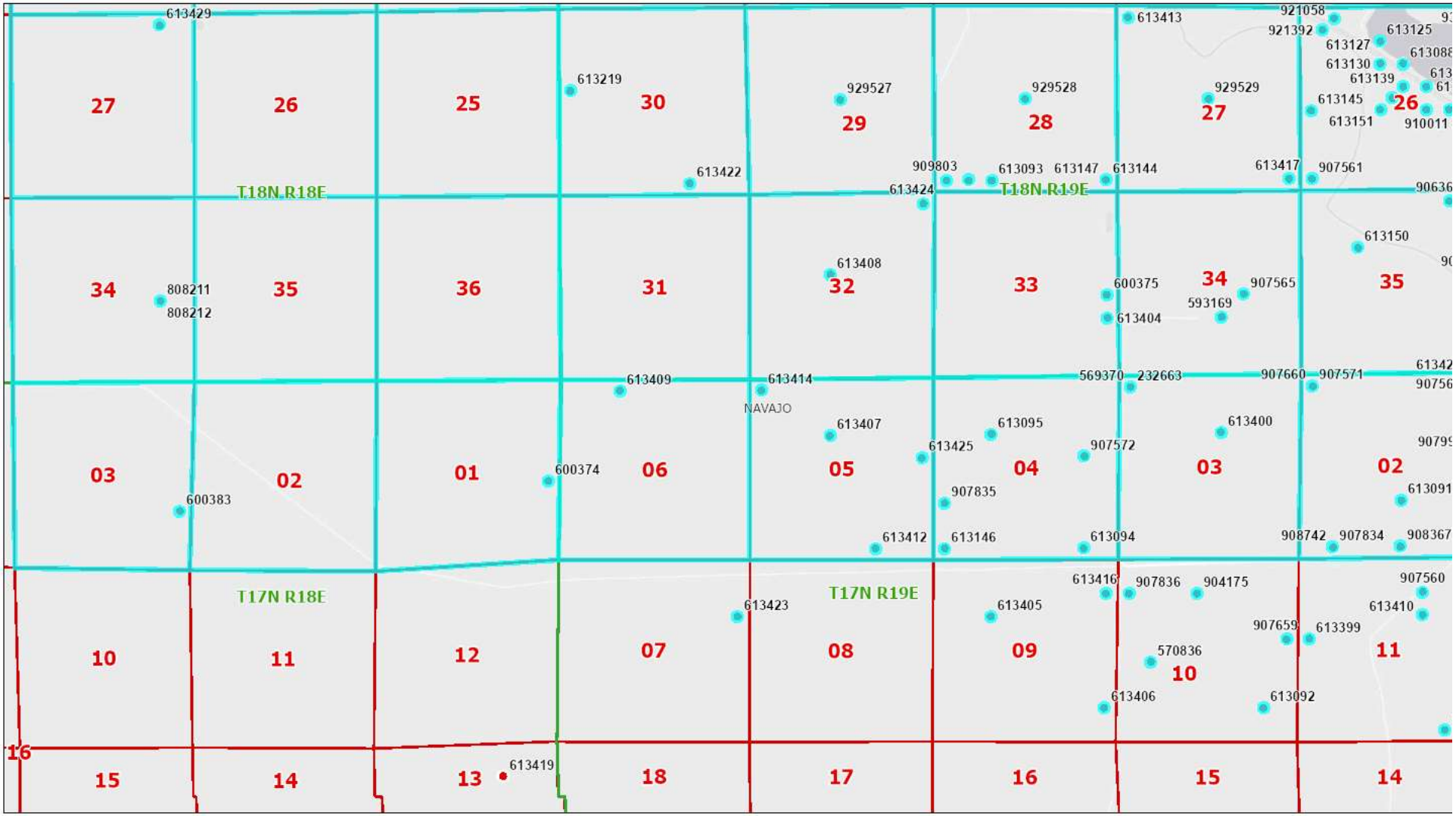

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Bureau of Land Management, Esri, H
GeoTechnologies, Inc., USGS, EPA, Esri,

APPENDIX

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SEMI-ANNUAL REPORT DOCUMENTING PROGRESS IN REMEDY SELECTION FOR THE FLY ASH POND AND BOTTOM ASH POND

July 15, 2024

Arizona Public Service Company
400 N. 5th Street
Phoenix, Arizona 85004

Subject: Semiannual Report Documenting Progress In Remedy Selection
Fly Ash Pond And Bottom Ash Pond
Cholla Power Plant – Navajo County, Arizona

In accordance with 40 Code of Federal Regulations (CFR) Section (§) 257.97(a) of the Coal Combustion Residuals (CCR) Rule, this Semiannual Remedy Selection Progress Report (Semiannual Report) has been prepared on behalf of Arizona Public Service Company (APS) to document progress in selection of remedies for CCR units which have been identified as potentially impacting groundwater at the APS Cholla Power Plant, located in Navajo County, Arizona (the Site). The identified applicable site CCR units include the Fly Ash Pond (FAP) and the Bottom Ash Pond (BAP). Semiannual progress reporting to support remedy selection began on July 15, 2019. The most recent update was provided in the *Annual Groundwater Monitoring and Corrective Action Report (GMCAR) for 2023*, dated January 31, 2024. This Semiannual Report serves as the eleventh update on remedy selection progress at the Site and documents activities completed to date in 2024.

SUMMARY OF ACTIVITIES COMPLETED IN 2024

Activities completed by APS in the first half of 2024 in support of remedy selection for the FAP and the BAP include the following:

- *Continued Assessment Monitoring at the BAP and FAP* – While corrective action evaluation progresses, assessment monitoring (including analysis of collected samples for Appendix III and Appendix IV constituents) has continued on a semi-annual basis at the BAP and FAP per 40 CFR §257.95(b) and (d)(1).
- *Interim Response Measures at the FAP and BAP*. In tandem with operation of existing seepage collection systems at the FAP and BAP, interim response measures including construction of improvements to make the BAP Seepage Collection Systems operate more effectively continued throughout early 2024 to limit the groundwater impacts from the BAP while remedies are being evaluated and selected.
- *Performance Monitoring of Active Systems* - Average flow rates will continue to be monitored for each active seepage extraction system at the FAP and BAP. Additionally, total removed mass of Appendix IV constituents (minus radionuclides) will be calculated for the active seepage extraction systems at the FAP and BAP during the 2024 reporting year and included in the 2024 GMCAR.
- *Updates to the Numerical Groundwater Model* – The existing numerical groundwater model for the Site used to assist the evaluation and selection of remedies for the FAP and BAP was updated in 2023. In early 2024, the

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modeling procedures and results were documented in a summary report in accordance with industry standards and guidelines and will be included as an appendix to the Remedy Selection Report.

— *Evaluation of FAP Dewatering Strategies*. A pilot-test field program to evaluate the extent and removal of drainable pore water upgradient of the FAP dam has been ongoing since May 2023. Multiple wells have been installed through the ash to the alluvium underlying the FAP with testing performed.

— *Construction of an Evaporation Pond to Receive Groundwater Seepage Flows After Cholla Power Plant Shutdown.* During the first half of 2024, APS completed excavation of the future pond and initiated installation of a liner system.

— *Remedy Selection Reports for the FAP and the BAP.* Preparation of a remedy selection report continued through the beginning of 2024 to document how the selected remedy will meet the requirements of 40 CFR §257.97(b).

FUTURE PLANNED ACTIVITIES

APS plans to perform the following activities in support of remedy selection during the second half of 2024 (and in upcoming years, as noted):

— *Integration of Extraction Wells and Improvements to Intercept Trenches into Seepage Collection System Operations at the BAP*. The installation of extraction wells and improvements to seepage intercept trenches at the BAP will likely be completed in late 2024. Completed activities associated with incorporating the extraction wells and intercept trenches into the system will be documented in the 2024 GMCAR.

— *Continued Operations of Existing FAP and BAP Seepage Collection Systems*. The seepage systems at both the FAP and BAP will continue to serve as part of interim response measures at both CCR units until remedial activities begin. The updated seepage collection systems at both units will also likely be a part of final selected remedies.

— *BAP In-Situ Remedy Pilot Study*. Based on recommendations put forth in the bench-scale evaluation, a pilot-scale study of in-situ strategies for cobalt remediation may be conducted at the BAP. The pilot-scale study would implement testing of groundwater oxidation amendments at near select wells. Implementation and assessment of the pilot-scale study will be evaluated during the second half of 2024 and would likely be part of initial remedial activities for adaptive remedy options in future years.

— *Evaluation of FAP Dewatering Strategies*. A third phase of well installations for dewatering will be initiated during the summer of 2024 to install additional vertical wells into the CCR along the existing alignment of wells from east to west across the FAP impoundment. A horizontal well drilling company will also be conducting work concurrently to drill and install a horizontal well at the bottom of the CCR impoundment to extract porewater. Treatment options for extracted dewatering water will be evaluated concurrently.

— *Construction of an Evaporation Pond to Receive Groundwater Seepage Flows After Cholla Power Plant Shutdown.* The new pond should be complete before the end of 2024.

— *Remedy Selection* – APS will select remedies for the FAP and the BAP that meet the requirements of 40 CFR §257.97(b). Additionally, a remedy selection report will be prepared per 40 CFR §257.97(a).

— *Initiation of Remedial Activities* – Per 40 CFR §257.91(f), APS will begin remedial activities at the FAP and the BAP within 90 days of selecting a remedy for each unit.

Respectfully submitted,

WSP USA Environment & Infrastructure Inc.



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Project Manager
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WSP ref.: US0023513.9708

APPENDIX

M

ANNUAL PROGRESS REPORT DOCUMENTING THE CONTINUED LACK OF GROUNDWATER ELEVATION DATA AND HYDROGRAPHS THROUGH 2024

Johnny Penrod
Plant Manager
Cholla Power Plant

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e-mail: Johnny.Penrod@aps.com

P.O. Box 188
Joseph City, Arizona 86032

November 22, 2024

Subject: §257.103(f)(2) ANNUAL PROGRESS REPORT DOCUMENTING THE CONTINUED LACK OF ALTERNATIVE CAPACITY AND PROGRESS TOWARDS CLOSURE OF THE FAP AND BAP
Cholla Power Plant – Navajo County, Arizona

In accordance with the requirement for an annual progress report required by 40 CFR §257.103(f)(2)(x), this report documents the continued lack of alternative disposal capacity for coal combustion residuals (CCR) at the Arizona Public Service Company (APS) Cholla Power Plant during the reporting period (i.e., December 1, 2023 through November 30, 2024). This report also describes progress made during the reporting period towards closure of two CCR units that APS has requested a site-specific alternative deadline to initiate closure for: the Fly Ash Pond (FAP) and the Bottom Ash Pond (BAP). Our demonstration prepared pursuant to §257.103(f)(2) was submitted to the United States Environmental Protection Agency (US EPA) on November 30, 2020 and was determined by the US EPA to be complete on January 11, 2022. As a consequence of submitting a complete demonstration, the deadline to cease receipt of waste at the FAP and BAP has been tolled until the US EPA issues a final determination regarding the demonstration.

Background. The 420-acre FAP and 80-acre BAP are unlined surface impoundments that receive CCR from coal-fired boiler operations at the Cholla Power Plant. In accordance with the requirements of federal CCR regulations, both the FAP and BAP must cease receiving CCR in the near term and "close for cause." Since APS plans to cease coal-fired boiler operations at Cholla Power Plant no later than April 2025 and complete closure of the FAP and BAP by October 17, 2028, APS seeks to continue receiving CCR and non-CCR wastestreams in the FAP and BAP under the alternative closure provision of §257.103(f)(2) through June 2025 to accommodate decommissioning.

Lack of Alternative Disposal Capacity. There have been no changes in alternative disposal capacity since submittal of our §257.103(f)(2) demonstration. If the FAP and BAP were not available to receive CCR, coal-fired electrical generation operations at Cholla Power Plant would need to shut down because:

- The FAP and BAP are the only existing CCR units located on-site that are sized and designed appropriately to receive CCR and non-CCR wastestreams generated by operation of Cholla Power Plant.
- Management of CCR and non-CCR wastestreams in wet temporary storage on-site is not technically feasible, let alone safe or adequately protective of the environment, given the projected volumes and the corresponding number of temporary tanks that would be required to contain the wastestreams.
- It is not technically feasible to send wet CCR off-site for disposal – there is no appropriate off-site treatment or disposal facility nearby that the CCR could be piped to and trucking/conveying by rail significant quantities of liquids to an appropriate waste processing facility or landfill is unlikely to be successful. Off-site transport of this

liquid CCR risks creating significant threats to public safety; these risks far out-weigh the benefit of off-site disposal of CCR.

Progress Towards Closure. Attachment D(2) of our §257.103(f)(2) demonstration identified multiple tasks required to advance closure of the FAP and BAP by October 17, 2028. An updated version of Attachment D(2) is enclosed with this report. Progress on these tasks is as follows:

- FAP Water Level Monitoring – Decant (free) water level monitoring in the FAP continued during the reporting period and is being conducted to track progress of dewatering the unit. Based on the results of monthly monitoring, the level of the FAP in November 2024 was 5,080 ft above mean sea level (AMSL) and has declined by 1.2 feet thus far in 2024. This rate of decline is consistent with declines typically observed by this time each year. Declines between the December of the previous year and November of the following year from 2020 through 2023 have ranged from 0.27 to 2.9 feet with an average of 1.7 feet. The quantity of rainfall received in a year significantly contributes to variability in pond level declines each year.
- Enhanced Evaporation in the FAP decant pond – APS installed twelve RWI Pittboss mechanically enhanced evaporators to promote evaporation of free water in the FAP in 2022. Since the units began operating in August of 2022, issues with the units becoming detached from their mooring and capsizing led to intermittent operation. The evaporators were taken offline in early March 2023 and redeployed using a new anchoring system in June 2023. Continued tethering issues with the units resulted in the removal of the evaporators in February 2024. An alternative strategy to address the decant water in this pond was developed during the reporting period. This water will be pumped to a temporary pond being constructed in the FAP footprint where ongoing evaporation of the water can continue and the soils under the decant water can be stabilized.
- Stockpile bridge lift material at the FAP – APS is currently in the process of relocating bottom ash from the Bottom Ash Monofill (BAM) to be used as future bridge lift material in FAP closure; this activity began in July 2023 and is anticipated to continue through June 2025. The estimated volume of bottom ash relocated from the BAM to the FAP to date is approximately 1,200,000 cubic yards.
- FAP Closure Detailed Design Engineering – During the reporting period, detailed design of the FAP closure strategy was progressed. A stormwater management system including multiple lined evaporation basins that will collect and retain non-contact stormwater run-on and run-off was designed. Capping design continued with test pitting in the vicinity of planned evaporation basins to assess soil suitability and modeling of soil properties to obtain final design parameters for a layered evapotranspiration cap. The cap will consist of erosion, infiltration, compacted clay, and capillary break layers. Design drawings were developed in anticipation of contractor procurement activities scheduled for early 2025.
- Dewatering of Drainable Porewater at the FAP Using Extraction Wells - Preliminary assessment of engineering control measures to remove drainable porewater within the waste sluiced to the FAP began in 2022; this work has continued throughout 2023 and 2024 and has included the installation and operation of multiple dewatering test wells in the FAP. The results of testing will assist in refining the FAP closure plan. Once the design of engineering control measures has been suitably progressed, the FAP closure plan will be updated to demonstrate closure performance requirements.
- BAP Closure Detailed Design Engineering – Detailed design of the BAP progressed during the reporting period and includes dewatering the decant water pond and

bottom ash, excavating bottom ash and impacted soils with placement of these materials in the BAM, and breaching the BAP dam. Design drawings were developed in anticipation of contractor procurement activities scheduled for early 2025.

If you have any questions regarding this progress report, please contact Natalie Chrisman Lazarr at 602.316.1324 or via email at natalie.chrismanlazarr@aps.com.

Sincerely,



Johnny Penrod
Plant Manager - Cholla Power Plant

Enclosure: Attachment D(2) – Updated for 2024

ATTACHMENT D(2) – 2024 Updates in BLUE Text

CHOLLA POWER PLANT
CLOSURE SCHEDULE NARRATIVE
40 CFR 257.103(f)(2)(v)(D)

Arizona Public Service Company (APS) has been planning for the closure of the Fly Ash Pond (FAP) and Bottom Ash Pond (BAP) for some time. Figures D-1 (FAP Closure Activities) and D-2 (BAP Closure Activities) present Gantt charts depicting the tasks that must be completed as part of pond closure with the corresponding planned schedule for those tasks. This narrative supplements the Closure Plans presented as Attachment D(1) and presents supporting detail regarding the tasks and schedule identified in each Gantt chart.

1. Closure of the Fly Ash Pond

1.1 Pre-Construction

1.1.1 Minimize Discharge to the FAP

Continue implementing measures that limit discharges to the FAP; this activity has been ongoing since early 2016 and has included sale of fly ash to a local cement manufacturer, shut down of Unit 2 and Unit 4, diversion of water from seepage collection systems to general water (this flow previously discharged into the FAP), diversion of reject from the reverse osmosis water treatment system, and various plant operational modifications. This activity will continue thru plant shut down.

1.1.2 Stockpile Closed Ash Pond 1 CCR Material

Move 767,000 cubic yards (cy) of ash from closed Ash Pond 1 to a stockpile area located within the Fly Ash Pond footprint and store for utilization as fill and stabilization material for closure activities. Work began in September 2020 and was completed in December 2021.

1.1.3 Stockpile Bottom Ash for Bridge Lift

Relocate approximately 1,900~~400~~,000 cy of bottom ash from the Bottom Ash Monofill (BAM) to a stockpile area located within the FAP footprint and store for utilization as bridge lift material for closure activities. Initiated development of a haul route and procurement package in 2022. This work started in second quarter of 2023 and is anticipated to be complete by ~~fourth~~ the end of second quarter of 2024~~4~~5.

1.1.4 Land Acquisition/Access for Closure

No later than 3 years prior to starting closure activities, acquire land (or access to land) adjacent to the FAP for soil borrow areas. Investigation of borrow soil areas on APS property was conducted in 2022 to evaluate ~~justify~~ the need for offsite borrow areas. An ALTA survey supporting land acquisition was initiated in September 2022 and completed in second quarter of 2023. An agreement for access to land for soil borrow testing was completed in October 2023; however, no offsite borrow is currently required.

1.1.5 Run-On Diversions and Coffer (Push Up) Dams

Upstream in the drainage channels, build small retention coffer dams to capture precipitation run on. This work was completed in late 2022.

1.1.6 Enhanced Evaporation of Decant Water Area

Design and construction of a mechanically enhanced evaporation system for increasing the rate of evaporation and accelerating drawdown of free water within the FAP occurred in 2022. Twelve units began operation in August 2022. After tethering issues with evaporators could not be resolved, these units were removed from the FAP in February 2024. An alternative approach to address decant water was developed in 2024 which includes constructing a temporary basin within the footprint of the FAP that the decant water will be pumped into for further processing.

1.2 Engineering

1.2.1 Design Engineering

Start design engineering activities in 2023; these activities include approximately 21 months of design engineering work. The objective of these activities is to produce design drawings and specifications that will be used to procure a contractor for FAP closure activities. Design drawings and specifications will be finalized in early 2025.

1.2.2 Geotechnical and Borrow Investigations/Bridge Lift Testing

Identify usable soils for borrow materials. Build roads onto the FAP beach for access of light-weight geotechnical test equipment. Test fills to measure internal water pressures generated by bridge lift loading. Estimate techniques and materials needed to construct full-scale soil fill cap. This work was completed in 2024.

1.3 Permits

1.3.1 Arizona Department of Water Resources (ADWR) Dam Modifications

~~Anticipate that the permitting process with the ADWR Dam Safety Bureau to modify a jurisdictional high hazard dam will require nine months. Consult early with ADWR to identify if additional time is needed.~~ Initiated discussions with ADWR regarding FAP closure in late 2022. Discussions continued with ADWR in 2024.

1.3.2 US Environmental Protection Agency (EPA) CCR Rule Closure Plan Approval

~~Anticipate up to six months will be required to achieve approval of proposed Closure Plan from US EPA if a permit program is in place before construction begins.~~ It is currently not anticipated that a permit program will be in place before closure of the FAP begins.

1.3.3 Navajo County

Consult with Navajo County to discuss earthwork grading and stormwater requirements. Discussions with Navajo County occurred in 2024.

1.4 Procurement

1.4.1 Preliminary Construction Contracts

Anticipation of six months duration for procurement of the primary construction contract (includes bid event and award of contract).

1.5 Final Boiler Closures

1.5.1 Plant Final Boiler Closures

Cease generation using coal no later than April 2025.

1.6 Construction

1.6.1 Dewatering of Drainable Pore Water

Install and test extraction wells completed in CCR (Phase 1 of the well installation program began in May 2023). Initiate extraction well operations and optimize the extraction of drainable pore water for the interception and removal of pore water that contributes to seepage from the FAP (Phase 1 and 2 wells were equipped and initiated porewater extraction in February 2024; Phase 3 wells are planned to be equipped and begin operation by the end of 2024).

1.6.2 Fill and Stabilize Remaining Water Ponds Areas

Backfill remaining free water at the upstream toe of CCR with fill material to stabilize soils in preparation for capping.

1.6.3 Excavate Upstream Stormwater Basins

Excavate upstream basins to intercept and retain stormwater run-on. Work starts Third Quarter of 2025 and requires 21 months.

1.6.4 Build Stormwater Basins

Install a composite liner system in each upstream stormwater basin.

1.6.5 Build the Bridge Lifts and Construct Evapotranspiration (ET) Cap

Construct the bridge lifts and place the ET cap material over the supporting bridge lift material as area comes available. These construction activities will be split along the north and south halves of the pond, advancing the cap materials from southwest. ET cap placement will follow the bridge lift construction activities as areas become available. Work starts First Quarter 2027.

1.6.6 Vegetate ET Cap

Seed the ET cap as sections are completed. Finish September or October 2028.

2. Closure of the Bottom Ash Pond

2.1 Pre-Construction

2.1.1 Land Acquisition for Closure (e.g. Borrow Areas)

If needed, acquire land adjacent to the BAP for soil borrow areas and construction of diversion channels. An ALTA survey supporting land acquisition was initiated in September 2022 and was completed in second quarter of 2023. No offsite borrow is currently required.

~~*2.1.2 Mine Out West Cell from BAP*~~

~~Excavate bottom ash from the west cell of the BAP and relocate material to the BAM or the FAP for use as bridge lift material.~~

2.1.3~~2~~2 Divert Bottom Ash Discharge to West Cell

Modify BAP operations to discharge into the BAP west cell in preparation for dewatering of the northern area of the BAP. This work was completed in January 2024.

~~*2.1.4 Collect Samples from BAM Expansion Area and BAP Dam Shell*~~

~~Collect samples to evaluate the condition of the BAM expansion area and determine whether the BAP dam shell material is suitable for use as an ET cap.~~

2.1.5~~3~~3 Dewater Northern Area of the BAP

Promote gravity drain down of the northern area of the BAP.

2.2 Engineering

2.2.1 Design Engineering

Start design engineering activities in 2023; these activities will include approximately 18 months of design engineering work. The objective of these activities is to produce design drawings and specifications that will be used to procure a contractor for BAP closure activities. Design drawings and specifications will be finalized in early 2025.

2.2.2 Geotechnical and Borrow Investigations

Identify usable soils for borrow materials. Build roads onto bottom ash beach areas for access of light-weight geotechnical test equipment.

2.3 Permits

2.3.1 ADWR Dam Modifications

Anticipate that the permitting process with the ADWR Dam Safety Bureau to breach a jurisdictional high hazard dam will require fifteen months. Consult early with ADWR to identify if additional time is needed. Discussions with ADWR continued in 2024.

2.3.2 US EPA CCR Rule Closure Plan Approval

~~Anticipate up to six months will be required to achieve approval of proposed Closure Plan from US EPA if a permit program is in place before construction begins.~~ It is currently not anticipated that a permit program will be in place before closure of the BAP begins.

2.3.3 Navajo County

Consult with Navajo County to discuss earthwork grading and changes in stormwater flows due to the planned dam breach. Discussions with Navajo County occurred in 2024.

2.4 Procurement

2.4.1 Preliminary Construction Contracts

Anticipation of six months duration for procurement of the primary construction contract (includes bid event and award of contract).

2.5 Final Boiler Closures

2.5.1 Plant Final Boiler Closures

Cease generation using coal no later than April 2025.

2.6 Construction Activities

2.6.1 Remove Remaining Decant Water from BAP

Siphon or pump extensively sending all free water possible to the plant for use in decommissioning activities or disposal.

2.6.2 Gravity Drain-Down CCR Pile

Allow up to 18 months to gravity drain the delta of CCR material. Activities may include the use of drainage ditches, vacuum wells, and/or pushing out of bridge lift material to help squeeze pore water from the CCR material. Starts with the cessation of discharge of CCR material.

~~*2.6.3 Excavate CCR from the BAM Expansion Area*~~

~~Remove dewatered bottom ash from the northern area of the BAM and place in the BAM. This activity is anticipated to begin before boiler shutdown but could be ongoing when boiler shutdown occurs.~~

~~*2.6.4 Construct a BAM Expansion Landfill and Associated Stormwater Controls*~~

~~Construct a lateral to the existing BAM landfill in the northern area of the BAP footprint after the CCR has been removed from this expansion area. The new lateral will be lined. After CCR has been sufficiently removed from area around the new lateral, construct stormwater control channels.~~

2.6.6~~3~~3 Excavate CCR from BAP and Place in BAM

As the BAP is dewatered, excavate CCR/impacted soils and place the material in the BAM ~~and the new BAM expansion landfill~~. This effort is anticipated to take 27 months to complete.

2.6.5~~4~~4 Build and ~~Vegetate an ET Cap on the BAM Expansion Landfill~~

After CCR excavated from the BAP has been placed in the ~~new lateral~~ BAM, construct ~~an~~ a closure turf cap. ~~ET cap on the new expansion area, likely using soil from breaching the dam. The ET cap will be seeded for soil stabilization as the cap is placed.~~

2.6.~~7~~5 Grade and Stabilize Soils in Footprint of Former BAP

After the CCR has been removed from the footprint of the former BAP, regrade the area, as necessary, to promote proper drainage. Seed the soils thereafter to promote soil stabilization. Finish no later than October 2028.

2.6.~~8~~6 Breach the BAP Dam

When safe to do so, breach the BAP dam to remove this structure from the ADWR jurisdiction.

Figure D-1

Planned Schedule for FAP Closure Activities

Last Updated: 11.21.2024 (2024 Updates in Blue Text)

NOTES:
1. Does not describe any removal of free water to Evaporation Pond or unlined basins
2. For cap construction, a south/north distinction has been made to allow an extra year for dewatering of the more fine-grained northern half.

TASK	START	END	Duration
Pre-Construction			
Minimize discharge to FAP	20Q1	25Q2	63 months
Stockpile 767,000 cy existing fly ash for fill and stabilization material	20Q3	22Q1	18 months
Stockpile ~~400,000~~ 1,900,000 cy of BAM BA for bridge lift material	23Q3	25Q3	24 months
Land acquisition/access for closure (e.g. borrow)	23Q1	23Q4	9 months
Run-on control dams	22Q4	23Q1	3 months
Enhanced evaporation of decant water (i.e., free water) area	22Q2	25Q2	36 months
Engineering			
Design engineering (SG2)	23Q1	25Q2	27 months
Geotechnical and borrow investigations/bridge lift testing	23Q1	24Q1	12 months
Permits			
ADWR dam modifications	22Q4	25Q1	27 months
USEPA CCR closure plan approval (as applicable)			
Navajo County	24Q1	25Q1	12 months
Procurement			
Primary construction contract(s)	25Q1	25Q3	6 months
Final Boiler Closures			
Plant final boiler closures	25Q2	25Q2	0 months
Construction			
Dewatering of drainable pore water using extraction wells	23Q2	28Q4	66 months
Fill and stabilize remaining water pond areas	25Q2	25Q4	6 months
Excavate upstream stormwater basins	25Q3	27Q2	21 months
Build stormwater basins	27Q2	28Q2	12 months
Build south half of ET cap using stockpiled soil	27Q2	27Q4	6 months
Build north half of bridge lift	27Q1	27Q4	9 months
Build north half of ET cap using stockpiled soil	27Q4	28Q3	9 months
Vegetate ET cap	28Q3	28Q4	3 months

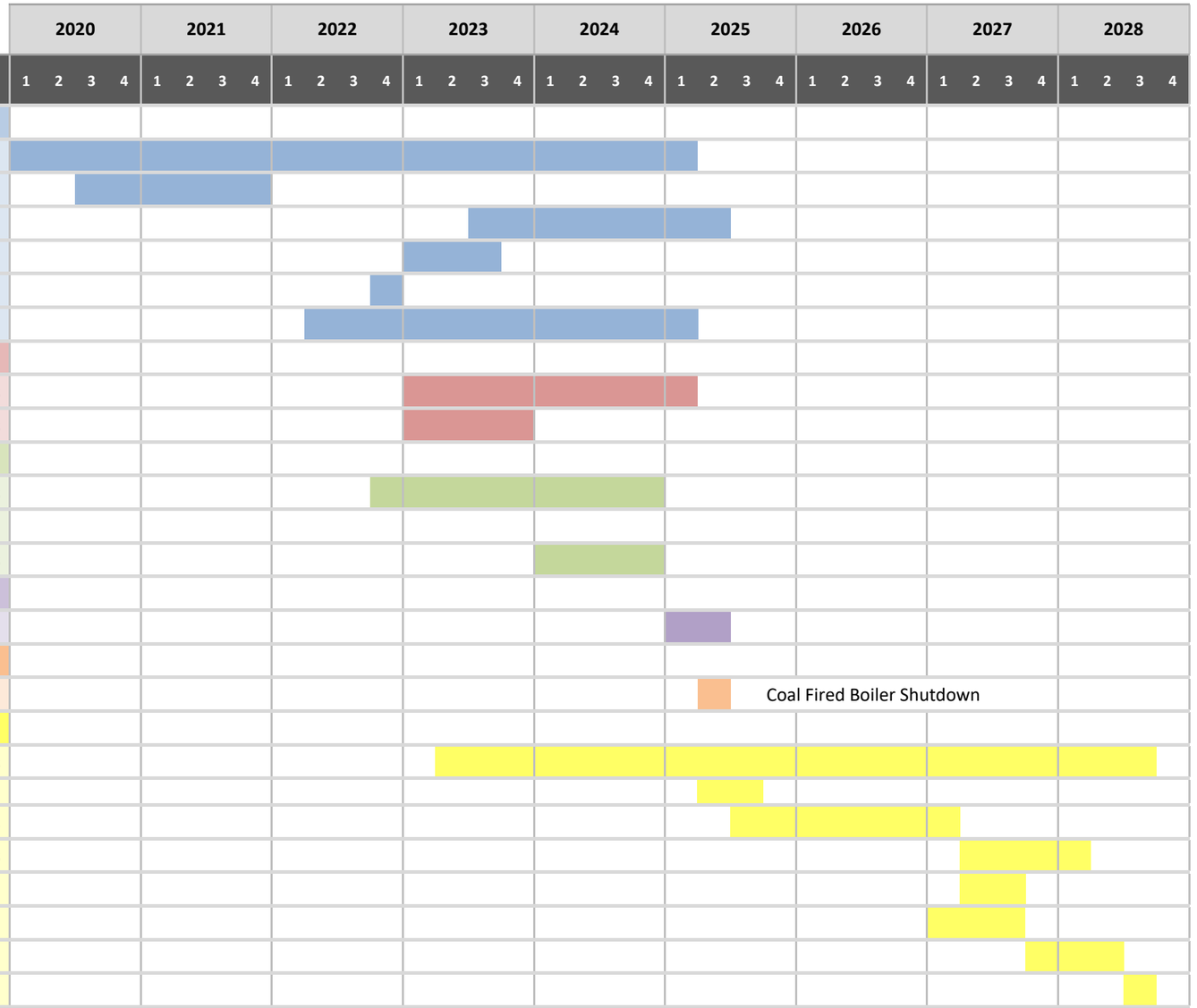

Figure D-2

Planned Schedule for BAP Closure Activities

Last Updated: 11.21.2024 (2024 Updates in Blue Text)

NOTES:
1. Does not describe any removal of free water to Evaporation Pond or unlined basins.

TASK	START	END	Duration
Pre-Construction			
Land acquisition for closure (e.g. borrow areas), if needed	24Q2	25Q1	9 months
~~Mine out West Cell from BAP~~			
Divert bottom ash discharge to West Cell	24Q1	24Q2	3 months
~~Sample the BAM expansion area footprint~~			
~~Sample the BAP dam shell materials for use as a closure cap (ET cover)~~			
Dewater northern area of the BAP	24Q1	25Q1	12 months
Engineering			
Design engineering (SG2)	23Q2	25Q2	24 months
Geotechnical and borrow investigations	23Q2	24Q2	12 months
Permits			
ADWR dam modifications	24Q3	25Q4	15 months
ADEQ/USEPA CCR closure plan approval (as applicable)			
Navajo County	24Q1	25Q1	12 months
Procurement			
Primary construction contract(s)	25Q1	25Q3	6 months
Final Boiler Closures			
Plant final boiler closures	25Q2	25Q2	0 months
Construction			
Remove remaining decant water from BAP	25Q2	26Q4	18 months
Gravity drain-down CCR pile	25Q2	26Q4	18 months
~~Excavate CCR from the BAM expansion area and place in the BAM~~			
~~Construct BAM expansion landfill (lateral to existing BAM)~~			
~~Construct stormwater control channels around BAM expansion landfill~~			
~~Build ET cap on BAM expansion landfill using soil from the dam breach~~			
Excavate CCR from BAP and place in the BAM	25Q2	27Q3	27 months
Build and Cap ~~Vegetate ET cap on~~ BAM ~~expansion landfill~~	29Q2	29Q3	3 months
Grade and stabilize soils in footprint of former BAP	27Q3	28Q3	12 months
Breach the BAP dam	27Q4	28Q3	9 months

