STATE OF COLORADO

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Pueblo GW Report Submittal Question

Amy Veek <aveek@gcc.com> Tue, Jan 31, 2023 at 3:46 PM
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Hi Patrick and Amber,

I just created a dropbox folder that includes the 2022 Annual Groundwater Monitoring Report for Pueblo. Below is the link to the report file and you probably also received an email saying that you now have access to the Dropbox folder that the report is saved in.

https://www.dropbox.com/s/rxed3ax3pf4nrwh/GCC%20Rio%20Grande%20Pueblo%20Plant%202022%20Annual%20Groundwater%20Report%20-%20FINAL%2028JAN2023.pdf?dl=0

Let me know if you have any issues accessing the file or have any questions concerning this report.

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COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

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2022 GCC Rio Grande Pueblo Plant Annual Groundwater Report

Submitted to:
GCC Rio Grande, Inc.

Date:
January 28, 2023

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INTRODUCTION

This Annual Groundwater Report provides a compilation and interpretation of groundwater monitoring data to the Colorado Division of Reclamation, Mining and Safety (CDRMS) for the GCC Rio Grande, Inc. (GCC) Pueblo Cement Plant and Quarry (the Facility) and documents groundwater monitoring activities, results and interpretations for 2022. This satisfies a requirement of the CDRMS Mining Permit M-2002-004, specifically under the approved Technical Revision 11 (TR-11). To best support these efforts, GCC maintains a quality assurance/quality control (QA/QC) program to:

- Conduct GCC compliance staff and contractor training on water quality sampling for all GCC monitoring locations, equipment and methodologies, with detailed written procedure for groundwater monitoring provided in the Facility Sampling and Analysis Plan approved under TR-11.
- Collect all water quality field data with an industry-standard multi-parameter device with electronic data deliverable (EDD) output for all field data.
- Enter and document all water quality field monitoring data by mobile (digital/paperless) field monitoring logs specific to groundwater compliance locations which are automatically distributed to a third party, Resource Hydrogeologic Services (RHS) for same-day review following sampling.
- Conduct industry-standard, 10% random QA/QC lab sample submittals for duplicate and field blank water quality samples.
- Utilize EDDs produced by the contract environmental analytical laboratory for all data analyses.
- Conduct EPA Level III (EPA Stage 2B) validation of all compliance groundwater analytical laboratory reporting with a minimum of 10% validated as EPA raw data review.
- Compile and manage all water quality and level data in a geo-referenced Microsoft Access database.

GROUNDWATER MONITORING

GROUNDWATER MONITORING LOCATIONS

In 2022 GCC monitored ten groundwater monitoring wells at the Facility, which are shown on the location map included as **Figure 1**. **Table 1** displays all of the monitoring well construction and survey data.

- MW-5 was installed in 2008 and completed in unconsolidated surficial/overburden sediments and immediately underlying weathered bedrock at a location downgradient of the entire Facility, including both the quarry and plant.
- MW-6 was installed in 2018 and completed in the Fort Hayes Limestone just down-dip, and downgradient of mine panel 2 and upgradient of the plant.
- MW-7 was installed in 2018 and completed in the Fort Hayes Limestone just down-dip, and downgradient of mine panel 2 and upgradient of the plant. This well is completed across a fault in the Fort Hayes Limestone that was documented when exposed during the mining of panel 2. MW-7 is located approximately 25 feet northwest of MW-6 and is screened over the same interval.

- MW-8 was in installed in 2020 and is completed in the Codell Sandstone, just down-dip, and downgradient of mine panel 2 and upgradient of the plant. MW-8 is located approximately 25 feet northeast of MW-7.
- MW-9 was installed in 2021 and is completed in the Codell Sandstone, up-dip, and upgradient of mine panel 4.
- MW-10 was installed in 2021 and is completed in the Blue Hills Shale, up-dip, and is upgradient of mine panel 4. MW-10 is located approximately 25 feet northeast of MW-9.
- MW-11 was installed in 2021 and is completed in the Fort Hayes Limestone just down-dip, and downgradient of mine panels 3 and 4.
- MW-12 was installed in 2021 and is completed in the Codell Sandstone, just down-dip, and downgradient of mine panels 3 and 4. MW-12 is located approximately 25 feet northeast of MW-11.
- MW-13 was installed in 2021 and is completed in the Fort Hayes Limestone, down-dip, and downgradient of the entire Facility, including both the quarry and plant.
- MW-14 was installed in 2021 and is completed in the Codell Sandstone, down-dip, and downgradient of the entire Facility, including both the quarry and plant. MW-14 is located approximately 25 feet northeast of MW-13.

GROUNDWATER MONITORING DATA COLLECTION

Groundwater monitoring was conducted quarterly in 2022 at MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14. MW-5, which has been observed as dry since installation in 2008, was monitored in 2022Q2 and 2022Q4 and as with all previous years, was found to be dry in each event. Per the current SAP (TR-11), MW-5 is only monitored semi-annually which is typically in May/June and November/December.

For all of the wet monitoring wells MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14 depth to water measurements, and field water quality parameters temperature, pH, oxygen reduction potential (ORP), dissolved oxygen (DO), and specific conductance were documented for each monitoring event. These monitoring events also included water sample collection for submittal and analysis by an accredited environmental analytical laboratory.

Industry-standard protocol for groundwater sample collection was utilized, which is the foundation for the Sampling and Analysis Plan (SAP) approved by CDRMS in 2022 as TR-11 and adopted by GCC as the site-specific, stand-alone document guiding groundwater monitoring at the Facility.

In 2022 groundwater was purged and sampled by means of dedicated variable speed 12-volt stainless steel pump systems designed for 2-inch monitoring wells (SS Sample Champ XL). The one exception to this was for sampling at MW-14, which is purged and sampled by a dedicated stainless steel bladder pump (QED T1300). All wells are sampled by low-flow methodology per the TR-11 SAP. Each monitoring well was pumped at the lowest practical rate possible, on the order of 0.03 to 0.1 gallons per

minute (gpm), to purge the calculated pump discharge tubing volume. Following the purging of the respective tubing volumes, stability was considered achieved and a water sample was collected for laboratory analysis when three consecutive measurements did not vary more that 3% for conductivity and temperature, +/- 10 millivolts for ORP, and +/- 0.1 standard units for pH. **Table 2** includes field parameters for each sample event and **Attachment 1** is a compilation of all compliance monitoring well "Groundwater Sampling Record" field forms completed by the monitoring team for 2022.

The CDRMS-required groundwater compliance constituents for the Facility are given in **Table 2**. These constituents are required by TR-11 and represent the CDPHE Water Quality Control Commission Regulation 41, the basic standards for groundwater (herein after, reference standards). GCC is specifically subject to Table 3 of that document, Agricultural Standards, CDPHE 2016.

GROUNDWATER MONITORING DATA ANALYSIS

GROUNDWATER QUALITY

Beginning in 2021Q2, groundwater samples were analyzed for major cation and anion constituents per TR-08 to supplement the existing analytical suite and support interpretations of major ion chemistry in groundwater. This has continued through 2022 under TR-11. Analytical results from water quality samples collected from all wet compliance monitoring wells are presented in **Table 2** and compared to CDPHE Colorado Water Quality Control Commission agricultural use reference standards (CDPHE, 2016). Complete analytical laboratory reports for 2022 are provided as **Attachment 2**.

A graphical analysis of water quality results from the Fort Hayes Limestone (MW-6, MW-7, MW-11, and MW-13), Codell Sandstone (MW-8, MW-9, MW-12, and MW-14), and Blue Hills Shale (MW-10) groundwater samples are presented in **Figures 2 through 7** and discussed below.

Major Ion Chemistry

Groundwater chemistry in the Fort Hayes Limestone is affected by local and regional structural controls on flow paths and residence times. For example, groundwater quality along the mine panel two fault, known at the Facility as the Damian fault (MW-6 and MW-7) is characterized by neutral pH and generally sodium-magnesium-sulfate type, whereas Fort Hayes groundwater in areas not associated with the Damian fault (MW-11 and MW-13) gains alkalinity as groundwater migrates downgradient and is characterized by neutral (MW-11) to alkaline (MW-13) pH and sodium-potassium-bicarbonate type. These differences in major ion chemistry along the different flow paths are presented graphically as Stiff Diagrams in **Figure 2**, where concentrations of major cations and anions (beginning in 2022Q1) are presented in milli-equivalents (milligrams of solute mass divided by ionic weight and multiplied by ionic charge) per liter so the ionic balance between positive and negative ions can be seen in each analysis.

In comparison, the underlying Codell Sandstone has a stronger sodium-potassium signature when compared with the Fort Hayes Limestone groundwater. However, similar trends in the relative flow paths (i.e., groundwater in the vicinity of the Damian fault versus groundwater not in the vicinity of the fault) are observed. Upgradient groundwater (MW-9) and groundwater associated with the Damian fault (MW-8) is characterized by neutral pH and sodium-potassium-sulfate type, as shown in **Figure 3**. Codell groundwater not in the vicinity of the Damian fault (MW-12) and further downgradient (MW-14) are near alkaline and have a groundwater type of sodium-potassium-chloride.

MW-10 was completed upgradient of mine panel 4 in the Blue Hills Shale unit. Major ion chemistry in this location is similar to the groundwater composition in the Fort Hayes Limestone at MW-6 and MW-7, near the Damian fault. Upgradient groundwater in the Blue Hills Shale is neutral in pH and is sodium-potassium-sulfate groundwater type (**Figure 4**).

Based on the observed groundwater composition and trends as groundwater migrates from upgradient to downgradient areas, it is apparent that local preferential pathways affect the groundwater flow and residence times, which results in localized variability in chemistry within each water-bearing unit.

Trace Element Chemistry Trends

Analytical results from groundwater quality samples collected in the Fort Hayes Limestone, Codell Sandstone, and Blue Hills Shale were evaluated against the applicable reference standards (CDPHE, Regulation 41, Table 3, Groundwater Quality Reference Standards [Agricultural Use]) in **Table 2**, and selected constituent trends through time are presented in **Figures 5 through 7**. In general, constituent concentrations were below the applicable reference standards in all three units, with a few exceptions. **Figures 5, 6, and 7** present time series plots of selected constituents pH, manganese, fluoride, and selenium in the Fort Hayes Limestone, Codell Sandstone, and Blue Hills Shale, respectively.

In the Fort Hayes Limestone, concentrations of manganese at MW-6 consistently exceeded the reference standard of 0.2 mg/L for samples collected at MW-6 between 2018 and 2021 (**Figure 5**). Trends show declining concentrations between 2018 and 2022Q1, after which concentrations appear to be increasing (**Figure 5**), likely resulting from natural variation in the groundwater. No exceedances of manganese were observed on the opposite side of the Damian fault at MW-7 (**Figure 5**). Exceedances of manganese at upgradient location MW-9 and downgradient location MW-12, completed in the Codell Sandstone, were also observed, as shown in **Figure 6**. Only one discrete exceedance of the reference standard for manganese was observed in MW-10, during the 2022Q1 sampling event (**Figure 7)**. However, subsequent concentrations at this well have been over an order of magnitude less than the first sample collected in 2022Q1 (**Figure 7**). The observed variability in trends within each lithologic unit and through time may be due to variability in recharge

water quality and transport of constituents as groundwater migrates through the system. Although concentrations of manganese exceed the reference standard in some locations, the Colorado Water Quality Control Commission issued a decision that the reference standard is only applicable where pH values are less than 6.0. Because all water quality samples have a measured pH value of greater than 6.0, less emphasis is placed on the exceedance of manganese of the reference standard.

Similar to the recent trends in manganese observed at MW-6, concentrations of cobalt and nickel have exceeded the reference standards in 2022Q3 (nickel) and 2022Q4 (cobalt and nickel), as shown in **Table 2**. Cobalt and nickel behave similarly in groundwater and can adsorbed by iron and manganese oxides (Hem, 2005). These observed changes in groundwater chemistry appear to be related to fluctuations in groundwater elevation and the wetting and drying of aquifer materials. MW-6 typically demonstrates unconfined conditions, whereby the measured water level is below the top of the well screen. Continued monitoring of cobalt and nickel concentrations at MW-6 may provide additional insight into the source and distribution of these constituents in groundwater.

Concentrations of fluoride have exceeded the reference standard in the downgradient Fort Hayes Limestone well, MW-13, and Codell Sandstone wells MW-12 and MW-14, as shown in **Figures 5 and 6**, respectively. Although concentrations of fluoride at MW-12 exceed the reference standard in 2022Q1 and 2022Q2, concentrations have since declined and no longer exceed the standard (**Figure 6**). Fluoride is a naturally-occurring constituent, usually present in ionic form in groundwater, and the solubility of fluoride-bearing minerals can be increased in waters that are generally low in calcium (Nordstrom and Smedley, 2022; Hem, 2005). In the downgradient wells where the highest concentration of fluoride occurs (MW-13 and MW-14), there is a corresponding low concentration of calcium in solution and increase in bicarbonate and carbonate alkalinity (**Table 2**). It is likely that groundwater in these locations is saturated with respect to calcite (CaCO3) and dissolved concentrations of calcite remain low as calcite precipitates, increasing the solubility of the fluoride ion in solution (Nordstrom and Smedley, 2022) No exceedances of fluoride were observed in the upgradient Blue Hills Shale location (**Figure 7**).

Exceedances of the selenium reference standard were observed in three of the Fort Hayes Limestone wells: MW-6, MW-7, and MW-11 (**Figure 5**). The presence and abundance of elevated selenium concentrations in groundwater of the Fort Hayes Limestone is likely attributed to naturally-occurring seleniferous minerals deposited in a marine environment (Bern and Stogner, 2017). No exceedances were observed for selenium in the Codell Sandstone (**Figure 6**) and Blue Hills Shale (**Figure 7**).

Although both MW-6 and MW-7 were completed in Fort Hayes Limestone in relatively close proximity to one another, differences observed in groundwater chemistry identify the primary

mechanism for groundwater flow through faults and fracture zones, instead of continuous horizontal flow paths.

QUALITY ASSURANCE/QUALITY CONTROL

In 2022 GCC collected and submitted one blind duplicate sample in all quarterly sampling events, which is given sample ID MW-2B. These duplicates were reported to have constituent concentrations within acceptable ranges of the named sample, which was MW-7 in quarters one and two, and MW-8 in quarters three and four.

Future compliance groundwater sampling will continue to include standard submittal of 10% QA/QC blind duplicate or field blank samples per quarter (one sample for up to ten sites).

Beginning in 2020 and now continued through 2022, per the approved SAP, the compliance groundwater data were validated at EPA Level III (EPA Stage 2B) with a minimum of 10% validated as EPA raw data review. All laboratory standard delivery groups (SDGs) are Level IV. The groundwater data validation for 2022 found that the laboratory has complied with the requested methods and the data is considered fully useable for project purposes with the consideration of the following qualifications regarding holding times. The nitrate and nitrate/nitrite results for the MW-13 and field duplicate MW-2B representing MW-7 in 2022Q1 exceeded holding time by approximately 12 hours. This nitrite data was qualified as it exceeded the 48-hour method 353.2 hold time, but is not rejected as it does not exceed 4X the method hold time. The samples were received at approximately the 48-hour hold time maximum due to UPS delivery delay. However, the total nitrogen data are qualified as estimated and are considered useable for project purposes. The data quality review report, prepared by Diane Short & Associates, Inc., is included here as **Attachment 3**. Section II of this attached report discusses the holding time issues in detail and specifically states on page 2:

> *"In this set of data, nitrate and nitrite results have been flagged by the laboratory as out of hold in SDG L73169. The analysis has exceeded the 48-hr hold time for individual determination of nitrate or nitrite. The results could be biased due to microbial degradation or formation of nitrate and nitrite. The bias is typically thought to be low, but a positive bias is also possible. In this case, the outliers are only about 12 hours beyond the hold time. Any degradation is likely to be insignificant during this brief time since the samples were kept cold, which suppresses microbial activity."*

Additionally, the attached data quality review report identified three TDS analyses (MW-9, MW-13 and field duplicate MW-2B representing MW-7 in 2022Q1) as exceeding the method holding time. As discussed in that report in Section II on page 3:

> *"In addition, two samples in SDG L73169 and one sample in SDG L73303 were out of hold for TDS. The original analysis in both cases was within hold time, but a reanalysis was required to dilute the samples to be within method requirements."*

While the TDS holding time issues were seemingly due to the contract laboratory waiting too long to confirm the initial results despite receiving the sample with adequate time, the nitrate/nitrate holding time issue is recognized to have continued from 2021 on one occasion due to shipment delays. As this was still an improvement from 2021, UPS ground service will continue to be utilized, shipping the chilled and properly preserved samples on the same day as collection for a demonstrated more reliable one-day delivery method than by air service.

GROUNDWATER LEVEL

Bedrock groundwater level monitoring data for the Facility in 2022 included four Fort Hayes Limestone monitoring wells, four Codell Sandstone monitoring wells, and one Blue Hills Shale monitoring well. Shallow groundwater at the Facility was not observed to be present in 2022; the single unconsolidated surficial/overburden well MW-5 has been documented dry since installation in 2008. All as-built monitoring wells were surveyed by Clark Land Surveying, Inc. in January 2022 for latitude, longitude and elevation at both the top of casing water level reference points (TOC) and the ground surface at the concrete well pads. This data is presented in **Table 1**. With this survey, all monitoring well level data can now be plotted as potentiometric groundwater elevations, thus allowing determination of flow direction and horizontal gradient for both the Fort Hayes and Codell aquifers. Additionally, with greater spatial distribution of the twinned monitoring well pairs, the monitoring well level data can now be normalized for direct comparison to better quantify the vertical hydraulic gradient regime of these two aquifers across the Facility. **Figure 8** shows the groundwater elevation hydrograph for all wetted wells over the full period of record 2018-2022. To plot all Facility monitoring wells, the vertical scale is 400 feet so some resolution is lost in this general plot. To better demonstrate the vertical hydraulic gradients at each twinned monitoring well location, **Figures 9 through 12** are plotted with a vertical scale of 50 feet. Those figures demonstrate both the detailed potentiometric groundwater trends as well as the vertical hydraulic gradients of each twinned monitoring location.

MW-6/MW-7/MW-8 Location

Previous to 2022, only two Fort Hayes monitoring wells, MW-6 and MW-7, existed at the Facility. MW-6 is screened across the non-faulted Fort Hayes. MW-7 is screened across the faulted Fort Hayes. Each of these wells are screened across the same depth intervals and are separated by a horizontal distance of approximately 25 feet. As shown in **Figure 1**, these wells are immediately downgradient of mine panel two. Evaluation of MW-6 water level monitoring data continues to demonstrate that the non-faulted Fort Hayes Limestone hosts a groundwater pressure regime that is derived from limited fracture networks with relatively low hydraulic conductivity and storage. However, as displayed in **Figure 9**, over the course of monitoring in 2022, the static water level at MW-6 tracked somewhat with MW-7. It appears that the lower yield MW-6 water levels deviated to lower levels during the winter 2022Q1 monitoring event when compared to MW-7. Since level monitoring began at these wells in 2018, at times both MW-6 and MW-7 have tracked very closely in potentiometric elevation indicating very little to no differential pressure gradient in the Fort Hayes across the fault. At other times the MW-7 well shows significantly higher potentiometric elevation

than that of MW-6, as much as fifteen feet difference. Both MW-6 and MW-7 exhibit unconfined groundwater conditions, as the depth to water measurements have almost always been documented to be below the top of the screened interval This continues to suggest, as with past years, that MW-6 exhibits a delayed seasonal groundwater recharge effect when compared to MW-7. This is consistent with an interpretation that MW-7 is completed across the Damian fault and has been documented by all monitoring events to be a higher yield well than MW-6.

MW-8, the underlying Codell Sandstone monitoring well at this location, demonstrated higher potentiometric groundwater levels than at the adjacent overlying MW-6 and MW-7 at monitoring events in the second half of 2021 and in January 2022. However, the MW-8 potentiometric water level dropped below both MW-6 and MW-7 in 2022Q2 and 2022Q3 and then between MW-6 and MW-7 in 2022Q4.

As was discussed in the 2021 Annual Groundwater Report (RHS 2021), this could indicate that the Fort Hayes groundwater recharge source is not only from surficial precipitation recharge in the southwest upland and up-dip areas of the Facility, but also from the underlying Codell Sandstone. Furthermore, the Damian fault that has been identified running through quarry panel 2 and the MW-6/MW-7/MW-8 location can be reasonably expected to extend not only through the Fort Hayes Limestone, but also the underlying Codell Sandstone by rule of geologic superposition. In areas where this fault, as well as other faults documented by exposure in previously quarried areas, are permeable, conditions exist to allow transmission of groundwater. These geologic structures may allow the over-pressured Codell Sandstone groundwater, where present, the preferential pathways to flow upwards into the Fort Hayes Limestone. It is further suggested that the MW-6/MW-7/MW-8 location may be located at or near the point of hydraulic balance between the two aquifers, in which the seasonality and magnitude of groundwater recharge, primarily derived from the fault, dictate that balance.

MW-11/MW-12 Location

Beginning in 2022, the new monitoring wells MW-11 (Fort Hayes) and MW-12 (Codell) were initiated into the Facility compliance monitoring program per the TR-11 SAP. As shown in **Figure 1**, this location is directly downgradient of mine panels three and four, which is generally cross-gradient from monitoring locations MW-6/MW-7/MW-8. The wells are located approximately 25 feet apart at ground surface, with MW-11 up-dip in relation to the deeper MW-12. **Figure 8** demonstrates cross-gradient conditions as groundwater potentiometric levels are similar in trend and magnitude between the locations. This location is also on the southeast side of the Damian fault crossing between MW-7 and MW-6. **Figure 10** shows the first five level monitoring events at MW-11 and MW-12; the first event on February 2, 2022 was at the time the dedicated sampling pump systems were installed. Both of these wells were developed in November 2021. While only one year and thus only one observed recharge season of level monitoring has been conducted to date, the initial trend shows a normal (downward) pressure gradient with respect to the Fort Hayes

and underlying Codell and at this time is more distinct in magnitude than the vertical pressure gradient that has been observed at the MW-6/MW-7/MW-8 location. The maximum observed differential potentiometric pressure between MW-11 and MW-12 was approximately 23 feet in 2022Q2, but had decreased to approximately 16 feet in 2022Q4.

MW-13/MW-14 Location

Beginning in 2022, the new monitoring wells MW-13, completed in the Fort Hayes Limestone, and MW-14, completed in the Codell Sandstone, were initiated into the Facility compliance monitoring program per the TR-11 SAP. As shown in **Figure 1**, this location is downgradient of both the Facility quarry and plant. The wells are located approximately 25 feet apart at ground surface, with MW-13 up-dip in relation to the deeper MW-14. These monitoring wells are by far the deepest at the Facility (**Table 1**) as they are the most down-dip locations of all existing bedrock wells. **Figure 11** displays the first five level monitoring events at MW-13 and MW-14; the first event on February 2, 2022 was at the time the dedicated sampling pump systems were installed. MW-13 was developed in November 2021 and MW-14 was developed in December 2021. The MW-14 water level decreased almost 22 feet between the initial measurement on February 2, 2022 and the first quarterly monitoring event on March 28, 2022. As discussed in the GCC Rio Grande Pueblo Plant TR-08 Monitoring Wells Installation Report (RHS 2022), MW-14 was developed by hydro-jetting of potable water, so it is likely that the substantially elevated groundwater level at the initial measurement was still influenced from the development efforts. However, the MW-14 level trend beginning in 2022Q2 has shown significant increase and with the 2022Q4 level measurement, the Codell Sandstone is over-pressured relative to the Fort Hayes Limestone by almost 27 feet. This demonstrates that with increasing depth down-dip to the northeast the differential pressure between the Fort Hayes Limestone and the Codell Sandstone increases. Such a condition at this location supports the hypothesis that upgradient Fort Hayes Limestone monitoring locations are likely receiving recharge from the Codell Sandstone through one or more cross-cutting faults. Also notable is the small range of water level fluctuation at MW-13 in 2022, less than five feet, which is the lowest of all Fort Hayes Limestone wells. A small magnitude of water level fluctuation over time in this deeper setting suggests a greater distance from the groundwater recharge source than the other Fort Hayes Limestone monitoring wells MW-6, MW-7, and MW-11.

MW-9/MW-10 Location

Beginning in 2022, the new monitoring wells MW-9, completed in the Codell Sandstone, and MW-10, completed in the underlying Blue Hills Shale were initiated into the Facility compliance monitoring program per the TR-11 SAP. As shown in **Figure 1**, this location is upgradient of mine panel four. The wells are located approximately 25 feet apart at ground surface, with MW-9 up-dip in relation to the deeper MW-10. As documented in the GCC Rio Grande Pueblo Plant TR-08 Monitoring Wells Installation Report (RHS 2022), this location was planned as another Fort Hayes/Codell twinned pair of wells, however, the Fort Hayes Limestone was not found there once drilling commenced. It was then presumed that the Fort Hayes Limestone had been eroded in this

arroyo location, leaving only the underlying Codell Sandstone and Blue Hills Shale as potential monitoring well completion intervals. An alternative upgradient Fort Hayes Limestone monitoring location was explored approximately 1/8-mile due north on a ridge line, however, the Fort Hayes Limestone was not encountered during drilling there either. **Figure 12** displays the first five level monitoring events at MW-9 and MW-10; the first event on February 2, 2022 was at the time the dedicated sampling pump systems were installed. Both wells were developed in November 2021. Both wells are in near-hydraulic balance, with differential pressure observed at a maximum of approximately 0.75 feet throughout 2022. Further long-term level monitoring should confirm if the Codell Sandstone and Blue Hills Shale are hydraulically communicating at this location. Both wells exhibit confined pressure conditions indicating possible recharge is upgradient in the outcrop areas on the flanks of Greenhorn Creek to the southwest. Confined groundwater pressure observed at this location suggest that the quarry's Codell floor rock is also saturated under confining pressure, and thus not likely to accept potential stormwater run-off infiltration from the overlying quarry.

Groundwater Flow Direction and Gradient

With the 2021 bedrock monitoring well installations increasing the number and spatial distribution of monitoring points in the Fort Hayes and Codell aquifers at the Facility, groundwater potentiometric elevations can now be plotted to determine the respective flow directions and horizontal gradients. In these first Facility plots, groundwater contours were kept relatively large at 50 feet, which is still adequate to demonstrate the groundwater flow direction and gradient.

Figure 13 presents a groundwater potentiometric elevation map for the Fort Hayes aquifer with level measurements collected at MW-6, MW-7, MW-11, and MW-13 in 2022Q4. The groundwater flow direction is on a bearing of 45° northeast in line with strata dip direction. The Fort Hayes groundwater gradient is calculated as 3.4% or 2.0°. The strata dip of the Fort Hayes has been estimated at 4.7% or 2.7°.

Figure 14 presents a groundwater potentiometric elevation map for the Codell aquifer with level measurements collected at MW-8, MW-9, MW-12, and MW-14 in 2022Q4. The groundwater flow direction is on a bearing of 45° northeast in line with strata dip. The 50-foot contour spacing apparently increases downgradient across the Facility, which suggests a decreasing or flattening of the gradient to the northeast as the strata extends further into the basin. For the area including the quarry and planned future mine panels, the Codell groundwater gradient is calculated as 2.8% or 1.6°. For the area downgradient of the quarry, including the plant and to the permit boundary to the northeast, the Codell groundwater gradient is calculated as 2.5% or 1.4°. The strata dip of the Codell Sandstone has been estimated at 4.7% or 2.7°.

REFERENCES

Bern, C.R., and Stogner, R.W. Sr., 2017. The Niobrara Formation as a Challenge to Water Quality in the Arkansas River, Colorado, USA. Journal of Hydrology: Regional Studies, Volume 12, pp. 181-195. August.

Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Commission, 2016. Regulation No. 41, The Basic Standards for Ground Water (5 CCR 1002-41), December 30.

GCC Rio Grande Inc., by Resource Hydrogeologic Services, Inc., 2021. Technical Revision 8 to Mining Permit No. M-2002-004 – Work Plan for 2021 Monitoring Well Installation Program, GCC Rio Grande, Inc. Pueblo Plant Pueblo Colorado, May 25.

GCC Rio Grande Inc., by Resource Hydrogeologic Services, Inc., 2022. Technical Revision 11 to Mining Permit No. M-2002-004 – Sampling and Analysis Plan for Environmental Groundwater Monitoring, GCC Rio Grande, Inc. Pueblo Plant Pueblo Colorado, May 13.

GCC Rio Grande Inc., by Resource Hydrogeologic Services, Inc., 2020. Technical Revision 7 to Mining Permit No. M-2002-004 – Sampling and Analysis Plan for Environmental Groundwater Monitoring, March 13.

Hem, J.D., 2005. Study and Interpretation of the Chemical Characteristics of Natural Waters. U.S. Geological Survey Water-Supply Paper 1473. Available at: https://pubs.er.usgs.gov/publication/wsp1473.

Nordstrom, D.K., and P.L. Smedley, 2022. Fluoride in Groundwater. The Groundwater Project. Guelph, Ontario, Canada. Available at: https://books.gw-project.org/fluoride-in-groundwater/

Resource Hydrogeologic Services, Inc., 2022. GCC Rio Grande Pueblo Plant TR-08 Monitoring Wells Installation Report, April 1.

Resource Hydrogeologic Services, Inc., 2021. 2021 GCC Rio Grande Pueblo Plant Annual Groundwater Report, February 11.

TABLES

Table 1. GCC Monitoring Well Construction and Survey Data.

Monitoring Well ID	Year Installed	CDWR Receipt Number	CDWR Permit Number	UTM NAD 83 Zone 13N Easting (meters)	UTM NAD 83 Zone 13N Northing (meters)	Elevation - Top of PVC Casing - Water Level Measuring Point (ft)	Elevation - Ground Surface at Wellhead Cement Pad (ft)	Well Diameter (in)	Well Casing Material	Total Well Completion Depth (ftbgs)	Screened Interval (ftbgs)	Screened Filter Pack Interval (ftbgs)	Screened Interval Formation	Type of Dedicated Sampling Pump
MW-5	2008	3632233	278490	533304.305	4217575.554	4966.65	4964.39	2	SCH 40 PVC	25.00	9.0-24.0	8.0-25.0	Colluvium/Weathered Bedrock	None - Dry Well
MW-6	2018	3690376A	312701	533308.582	4217579.756	5064.14	5061.62	2	SCH 40 PVC	56.40	30.9-56.4	28.0-56.7	Fort Hayes Limestone	12V ESP - SS Sample Champ XL
MW-7	2018	3690376B	312702	534710.190	4219189.212	5063.75	5061.09	2	SCH 40 PVC	56.10	30.6-56.1	27.5-57.0	Fort Hayes Limestone	12V ESP - SS Sample Champ XL
MW-8	2020	3696266	316170	534714.843	4219193.313	5062.90	5060.74	2	SCH 40 PVC	63.10	58.1-62.9	57.0-64.3	Codell Sandstone	12V ESP - SS Sample Champ XL
MW-9	2021	10013525	323005	535148.659	4221153.094	5256.09	5253.97	2	SCH 40 PVC	40.30	30.0-40.0	20.9-42.0	Codell Sandstone	12V ESP - SS Sample Champ XL
MW-10	2021	10013526	323006	535153.271	4221157.369	5255.82	5253.60	2	SCH 40 PVC	80.30	50.0-80.0	47.0-81.5	Blue Hills Shale	12V ESP - SS Sample Champ XL
MW-11	2021	10013527	323007	534405.485	4219710.530	5084.30	5082.09	2	SCH 40 PVC	70.00	39.6-69.6	36.6-70.6	Fort Hayes Limestone	12V ESP - SS Sample Champ XL
MW-12	2021	10013528	323008	534407.927	4219719.209	5083.94	5081.64	2	SCH 40 PVC	86.50	76.2-86.2	73.1-86.6	Codell Sandstone	12V ESP - SS Sample Champ XL
MW-13	2021	10013529	323009	534401.520	4219714.939	4990.11	4987.93	2	SCH 40 PVC	175.33	135.0-175.0	135.0-175.0	Fort Hayes Limestone	12V ESP - SS Sample Champ XL
MW-14	2021	10013530	323010	535242.397	4221415.851	4989.92	4987.81	2	SCH 40 PVC	205.33	190.0-205.0	187.0-206.0	Codell Sandstone	Bladder Pump - QED T1300

Coordinates Based Off State Plane Grid/NAD83 Colorado South. Vertical Datum Based of NAVD88.

Table 2 (Page 1 of 3). GCC Quarterly Compliance Groundwater Monitoring Data 2018-2022.

Location ID	Sample Date	Depth to Water (ft BTOC)	Field pH (SU)	Field Specific Conductance (µS/cm)	Field Temperature (Degrees C)	Total Dissolved Solids (mg/L)	Total Alkalinity (mg/L)	Bicarbonate as CaCO3 (mg/L)	Carbonate as CaCO3 (mg/L)	Hydroxide as CaCO3 (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)	Nitrate (mg/L)
MW-5	12/9/2019	DRY												
MW-5	9/17/2020	DRY												
MW-5	11/23/2020	DRY												
MW-5	5/12/2021	DRY												
MW-5	11/18/2021	DRY												
MW-5	3/24/2022	DRY												
MW-5	5/10/2022	DRY												
MW-5	11/8/2022	DRY												
MW-6	1/3/2018	48.24	6.95	4720	14	----	----	----	----	----	----	----	----	----
MW-6	4/27/2018	41.31	7.2	6200	16.3	5030	----	----	----	----	----	----	<1.0	<0.10
MW-6	9/26/2018	DRY												
MW-6	12/12/2018	42.91	7.39	6500	14.9	----	----	----	----	----	----	----	<1.0	----
MW-6	3/7/2019	56.03	Inadequate volume for representative field parameters or lab sample submittal											
MW-6	6/12/2019	43.92	7.14	5975	17.8	5620	----	----	----	----	----	----	0.60	12
MW-6	9/19/2019	28.15	----	----	----	5860	----	----	----	----	----	----	0.60	11
MW-6	12/9/2019	30.44	----	----	----	5460	----	----	----	----	----	----	0.80	8.1
MW-6	3/9/2020	32.30	7.22	5591	16.5	5780	----	----	----	----	----	----	0.70	2.02
MW-6	9/16/2020	29.78	7.2	5405	16.7	5480	----	----	----	----	----	----	0.50	0.05
MW-6	11/23/2020	30.92	7.25	5425	14.3	5300	----	----	----	----	----	----	0.57	1.62
MW-6	2/22/2021	36.61	7.55	5684	15.8	5780	----	----	----	----	----	----	0.62	0.07
MW-6	5/19/2021	46.32	7.43	5945	14.9	----	524	524	<2	<2	109	3200	0.57	0.03
MW-6	8/31/2021	26.18	7.32	6170	16.1	----	459	459	<2	<2	74.3	3390	0.58	4.2
MW-6	11/18/2021	29.70	7.18	7477	14.2	----	450	450	<2	<2	76.1	3750	0.62	0.846
MW-6	3/22/2022	36.00	7.23	5322	14.0	5200	321	321	<2	<2	48.5	3610	0.62	8.01
MW-6	5/17/2022	36.94	7.03	5726	16.7	5190	461	461	<2	<2	89.1	3140	0.57	3.24
MW-6	8/15/2022	36.78	7.02	5404	20.5	5410	421	421	<2	<2	68.7	3700	0.50	1.02
MW-6	11/7/2022	33.62	6.92	5311	15.7	5200	445	445	<2	<2	77.0	3180	0.79	<0.02
MW-7	1/3/2018	42.91	6.86	4765	15	5510	----	----	----	----	----	----	0.42	----
MW-7	4/27/2018	39.09	6.85	5820	15	5270	----	----	----	----	----	----	<0.50	<0.050
MW-7	9/26/2018	DRY												
MW-7	12/12/2018	37.84	6.9	6093	14	----	----	----	----	----	----	----	<1.0	----
MW-7	3/7/2019	40.79	6.95	6020	13.7	5640	----	----	----	----	----	----	----	----
MW-7	6/12/2019	31.25	6.95	5997	18	5700	----	----	----	----	----	----	0.5	1.73
MW-7	9/18/2019	27.89	----	----	----	6740	----	----	----	----	----	----	0.5	10
MW-7	12/9/2019	29.51	----	----	----	5320	----	----	----	----	----	----	0.5	14
MW-7	3/9/2020	32.46	7.01	6459	15.8	6540	----	----	----	----	----	----	0.4	15
MW-7	9/16/2020	29.65	7.17	4772	15.2	4950	----	----	----	----	----	----	0.4	11
MW-7	11/23/2020	30.40	7.16	4999	14.3	5070	----	----	----	----	----	----	0.47	11
MW-7	2/22/2021	32.87	7.55	6077	14.4	6500	----	----	----	----	----	----	0.49	9.9
MW-7	5/19/2021	30.83	7.51	5464	15.2	----	309	309	<2	<2	51	3430	0.4	7.51
MW-7	8/31/2021	25.79	7.15	6061	15.4	----	467	467	<2	<2	96	3360	0.52	0.91
MW-7	11/18/2021	29.45	6.94	6589	13.9	----	299	299	<2	<2	53	3700	0.53	3.84
MW-7	3/22/2022	36.7	6.95	5654	15.1	5760	491	491	<2	<2	94	3650	0.57	1.22
MW-7	5/10/2022	37.61	6.86	5593	15.2	5660	477	477	<2	<2	104	3240	0.58	0.186
MW-7	8/15/2022	29.34	6.99	5905	20.0	6170	484	484	<2	<2	97	3810	0.50	0.151
MW-7	11/7/2022	33.53	7.08	4727	15.2	4690	250	250	<2	<2	41	3000	0.37	4.65
MW-8	3/9/2020	43.78	Inadequate volume for representative field parameters or lab sample submittal at time of water level measurement and then COVID-19 restrictions enacted before well could be revisited following purge											
MW-8	9/16/2020	29.74	Inadequate volume for representative field parameters or lab sample submittal after purge - sample collected 9/28/20 because well took 2 weeks to recover											
MW-8	9/28/2020	57.43	7.26	9179	14.7	7900	----	----	----	----	----	----	0.9	<0.02
MW-8	11/9/2020	37.26	Inadequate volume for representative field parameters or lab sample submittal after purge - sample collected 11/23/20 because well took 2 weeks to recover											
MW-8	11/23/2020	39.73	7.11	5327	13.9	4060	----	----	----	----	----	----	1.14	<0.050
MW-8	2/22/2021	34.21	7.65	5476	14.8	4180	----	----	----	----	----	----	1.10	<0.02
MW-8	5/19/2021	34.56	7.60	5571	16.1	----	1200	1200	<2	<2	316	1520	0.89	0.99
MW-8	8/31/2021	25.75	7.32	6077	17.8	----	1080	1080	<2	<2	272	1820	1	<0.02
MW-8	11/18/2021	24.46	7.14	3852	14.7	----	1140	1140	<2	<2	283	1920	0.9	0.068
MW-8	3/28/2022	36.35	7.13	4545	15.1	3040	1020	1020	<2	<2	204	1090	0.92	0.029
MW-8	5/17/2022	37.93	7.12	5556	18.0	3630	1130	1130	<2	<2	315	1260	1.01	<0.02
MW-8	8/15/2022	30.25	7.18	5325	18.8	3790	1090	1090	<2	<2	291	1510	1.09	<0.02
MW-8	11/7/2022	32.00	7.15	5236	16.1	3840	1130	1130	<2	<2	297	1450	0.9	<0.02
MW-9	3/28/2022	26.16	6.55	4834	15.0	4420	223	223	<2	<2	43.6	3200	0.49	0.513
MW-9	5/17/2022	26.32	6.59	5486	16.9	4390	232	232	<2	<2	44.4	2980	0.44	0.89
MW-9	8/15/2022	26.42	6.86	4998	18.9	4640	323	323	<2	<2	44.5	3160	0.43	0.038
MW-9	11/7/2022	26.37	6.81	4959	16.2	4590	347	347	<2	<2	45.9	2970	0.27	<0.02
MW-10	3/28/2022	26.35	7.43	5724	15.1	4220	587	587	<2	<2	289	2380	0.99	<0.02
MW-10	5/17/2022	26.73	7.50	6205	18.0	4170	627	627	<2	<2	358	1990	1.08	<0.02
MW-10	8/15/2022	26.04	7.56	5813	18.8	4210	644	644	<2	<2	350	2240	1.16	<0.02
MW-10	11/7/2022	25.45	7.57	5698	15.3	4030	656	656	<2	<2	376	1900	1.02	<0.02
MW-11	3/23/2022	58.41	7.39	2265	15.5	1500	782	782	<2	<2	133	353	0.82	<0.02
MW-11	5/17/2022	59.41	7.39	2681	17.2	1580	842	821	20.4	<2	136	330	0.91	<0.02
MW-11	8/15/2022	54.00	7.37	2619	18.8	1640	839	839	<2	<2	135	401	0.93	<0.2
MW-11	11/7/2022	57.23	7.35	2573	15.2	1590	839	839	<2	<2	125	359	0.76	<0.02
MW-12	3/28/2022	63.48	8.19	2896	15.4	1360	409	380	28.9	<2	374	129	**2.52**	<0.02
MW-12	5/17/2022	81.76	8.04	3720	17.3	1810	472	448	23.6	<2	793	88.3	**2.21**	0.323
MW-12	8/15/2022	79.28	7.69	4219	18.0	2370	523	523	<2	<2	954	204	1.85	8.89
MW-12	11/7/2022	72.80	7.67	4399	15.2	2450	553	553	<2	<2	1000	195	1.65	4.18
MW-13	3/23/2022	117.48	8.23	3872	16.9	2430	1060	1030	28.8	<2	573	234	**5.41**	<0.02
MW-13	5/10/2022	118.78	8.38	3190	17.5	2150	995	933	61.8	<2	566	88.5	**6.06**	0.109
MW-13	8/15/2022	119.21	7.89	4115	19.1	2610	1180	1180	<2	<2	606	172	**6.46**	<0.02
MW-13	11/8/2022	119.31	7.96	4251	16.0	2540	1280	1230	52.5	<2	643	122	**6.51**	0.04
MW-14	3/28/2022	92.54	8.07	3669	17.5	2300	866	800	65.9	<2	473	353	**2.35**	<0.02
MW-14	5/17/2022	108.77	7.68	6741	17.2	3610	1320	1300	27.4	<2	1410	143	3.1	0.02
MW-14	8/15/2022	95.53	7.66	5626	18.2	4240	1300	1300	<2	<2	1480	321	3.1	<0.02
MW-14	11/8/2022	92.34	7.59	6395	15.5	4410	1320	1320	<2	<2	1660	393	**2.87**	<0.02
Field QA/QC Samples														
MW-6 (duplicate)	9/19/2019	----	----	----	----	6020	----	----	----	----	----	----	0.7	11
MW-7 (duplicate)	6/12/2019	----	----	----	----	5600	----	----	----	----	----	----	0.9	1.28
MW-7 (duplicate)	11/9/2019	----	----	----	----	5510	----	----	----	----	----	----	0.5	15
MW-7 (duplicate)	3/9/2020	----	----	----	----	6530	----	----	----	----	----	----	0.4	15
MW-7 (duplicate)	9/16/2020	----	----	----	----	5040	----	----	----	----	----	----	0.4	11
MW-7 (duplicate)	2/22/2021	----	----	----	----	6460	----	----	----	----	----	----	0.49	10
MW-7 (duplicate)	5/19/2021	----	----	----	----	----	291	291	<2	<2	50.7	3280	0.43	7.45
MW-7 (duplicate)	8/31/2021	----	----	----	----	----	464	464	<2	<2	109	3480	0.53	0.91
MW-7 (duplicate)	3/22/2022	----	----	----	----	5730	492	492	<2	<2	93.9	3720	0.56	1.18
MW-7 (duplicate)	5/10/2022	----	----	----	----	5660	490	490	<2	<2	104	3290	0.58	0.2
MW-8 (duplicate)	11/23/2020	----	----	----	----	4040	----	----	----	----	----	----	1.15	<0.050
MW-8 (duplicate)	11/18/2021	----	----	----	----	----	1130	1130	<2	<2	288	1920	0.89	0.078
MW-8 (duplicate)	8/15/2022	----	----	----	----	3730	1100	1100	<2	<2	290	1560	1.07	<0.02
MW-8 (duplicate)	11/7/2022	----	----	----	----	3770	1110	1110	<2	<2	289	1460	0.93	0.263
CDPHE Regulation 41 Table 3 Groundwater Quality Reference Standards (Agricultural Use)			*6.5 -8.5*	----	----	----							*2*	----

Notes:

Concentrations in bold indicate exceedance of CDPHE Groundwater Quality Reference Standard for Agricultural Use.
MW-5 has been dry since installation and initial monitoring on 7/14/2008.
2020Q2 monitoring not conducted due to COVID-19 restrictions.

Table 2 (Page 2 of 3). GCC Quarterly Compliance Groundwater Monitoring Data 2018-2022.

Location ID	Sample Date	Nitrate/Nitrite (mg/L)	Nitrite (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Calcium (mg/L)	Iron (mg/L)	Lead (mg/L)
MW-5	12/9/2019													
MW-5	9/17/2020													
MW-5	11/23/2020													
MW-5	5/12/2021													
MW-5	11/18/2021													
MW-5	3/24/2022													
MW-5	5/10/2022													
MW-5	11/8/2022													
MW-6	1/3/2018	<0.020	----	0.636	<0.03	<0.005	0.633	<0.005	<0.005	0.00423	0.0061	----	0.474	<0.01
MW-6	4/27/2018	<0.020	<0.040	<0.2	<0.03	<0.005	0.654	<0.005	<0.005	0.0188	<0.01	----	0.0556	<0.01
MW-6	9/26/2018													
MW-6	12/12/2018	<0.020	<0.040	<0.2	<0.03	<0.005	0.624	<0.005	<0.005	0.00601	<0.01	----	<0.1	0.00399
MW-6	3/7/2019						DRY							
MW-6	6/12/2019	12.1	0.03	0.5	<0.2	<0.05	0.5	0.0003	<0.05	<0.05	<0.05	----	0.80	0.0022
MW-6	9/19/2019	11.1	0.08	<0.3	0.0004	<0.05	0.3	0.00026	<0.05	0.05	<0.05	----	0.30	0.0004
MW-6	12/9/2019	8.12	0.02	<0.3	<0.001	<0.05	0.3	<0.0003	<0.05	<0.05	<0.05	----	<0.2	<0.0005
MW-6	3/9/2020	2.58	0.56	<0.3	0.0005	<0.05	0.3	0.00016	<0.05	<0.05	0.06	----	<0.2	<0.0001
MW-6	9/16/2020	0.05	<0.01	0.19	0.0009	<0.01	0.31	0.00011	0.01	0.03	<0.01	----	0.19	0.0006
MW-6	11/23/2020	1.63	0.012	<0.25	<0.001	<0.05	0.325	<0.00025	<0.05	<0.05	<0.05	----	<0.3	<0.0005
MW-6	2/22/2021	0.067	<0.01	<0.25	<0.001	<0.05	0.330	<0.00025	<0.05	<0.05	<0.05	----	<0.3	<0.0005
MW-6	5/19/2021	0.032	<0.01	<0.05	0.00237	<0.01	0.378	0.000058	<0.02	<0.02	<0.01	315	0.13	<0.0001
MW-6	8/31/2021	4.24	0.038	<0.05	<0.001	<0.01	0.24	<0.00025	<0.02	<0.02	<0.01	410	<0.06	<0.0005
MW-6	11/18/2021	0.846	<0.01	<0.05	<0.001	<0.01	0.245	<0.00025	<0.1	<0.02	<0.01	383	<0.06	<0.0005
MW-6	3/22/2022	8.02	0.011	<0.25	<0.001	<0.05	0.213	<0.00025	<0.1	<0.1	<0.05	488	<0.3	<0.0005
MW-6	5/17/2022	3.25	0.015	<0.25	<0.0002	<0.05	0.315	<0.00005	<0.1	0.0124	<0.05	440	<0.3	<0.0001
MW-6	8/15/2022	1.09	0.070	<0.25	0.00040	<0.05	0.187	0.000131	<0.1	0.0204	<0.05	421	0.70	<0.0001
MW-6	11/7/2022	<0.02	<0.01	<0.25	<0.001	<0.05	0.278	<0.00025	<0.1	**0.0608**	<0.05	414	0.32	<0.0005
MW-7	1/3/2018	<0.020	<1.00	1.35	0.00949	<0.005	0.461	<0.005	<0.005	0.00135	0.00555	----	1.39	<0.01
MW-7	4/27/2018	<0.100	<0.020	<0.2	<0.03	<0.005	0.441	<0.005	<0.005	<0.005	<0.01	----	0.25	<0.01
MW-7	9/26/2018													
MW-7	12/12/2018	<0.020	<0.040	<0.2	<0.03	<0.005	0.446	<0.005	<0.005	<0.005	<0.01	----	0.24	<0.01
MW-7	3/7/2019	0.0144		<0.2	<0.03	<0.005	0.427	<0.005	<0.005	0.00197	<0.01	----	0.30	<0.01
MW-7	6/12/2019	1.74	0.01	<0.3	<0.2	<0.05	0.4	<0.04	<0.05	<0.05	<0.05	----	<0.2	<0.2
MW-7	9/18/2019	10.1	0.02	0.4	0.0003	<0.05	0.3	0.00015	<0.05	<0.05	<0.05	----	0.80	0.001
MW-7	12/9/2019	14.3	0.08	<0.3	<0.001	<0.05	0.2	<0.0003	<0.05	<0.05	<0.05	----	<0.2	<0.0005
MW-7	3/9/2020	14.9	0.06	<0.3	<0.0002	<0.05	0.2	0.00011	<0.05	<0.05	<0.05	----	<0.2	<0.0001
MW-7	9/16/2020	11	0.03	0.16	<0.0002	<0.01	0.14	0.00007	0.01	<0.01	<0.01	----	0.15	0.0002
MW-7	11/23/2020	11.2	0.039	<0.25	<0.001	<0.05	0.153	<0.00025	<0.05	<0.05	<0.05	----	<0.3	<0.0005
MW-7	2/22/2021	9.98	0.068	<0.25	<0.001	<0.05	0.196	<0.00025	<0.05	<0.05	<0.05	----	<0.3	<0.0005
MW-7	5/19/2021	7.54	0.027	<0.05	<0.0002	<0.01	0.139	0.000057	<0.02	<0.02	<0.01	460	<0.06	<0.0001
MW-7	8/31/2021	0.907	<0.01	<0.05	<0.001	<0.01	0.313	<0.00025	<0.02	<0.02	<0.01	391	<0.06	<0.0005
MW-7	11/18/2021	3.84	<0.01	<0.05	<0.001	<0.01	0.187	<0.00025	<0.1	<0.02	<0.01	429	<0.06	<0.0005
MW-7	3/22/2022	1.24	0.02	<0.25	<0.001	<0.05	0.389	<0.00025	<0.1	<0.1	<0.05	396	<0.3	<0.0005
MW-7	5/10/2022	0.186	<0.01	<0.25	<0.001	<0.05	0.372	<0.00025	<0.1	0.00228	<0.05	376	<0.3	<0.0005
MW-7	8/15/2022	0.151	<0.01	<0.25	0.0004	<0.05	0.294	0.000067	<0.1	0.00277	<0.05	346	0.44	<0.0001
MW-7	11/7/2022	4.65	<0.01	<0.25	<0.001	<0.05	0.16	<0.00025	<0.1	0.00176	<0.05	454	<0.3	<0.0005
MW-8	3/9/2020													
MW-8	9/16/2020													
MW-8	9/28/2020	<0.02	<0.01	<0.25	0.0138	<0.05	1.2	<0.00025	<0.05	<0.05	<0.05	----	2.62	<0.0005
MW-8	11/9/2020													
MW-8	11/23/2020	<0.02	<0.01	<0.25	0.00219	<0.05	0.817	<0.00025	<0.05	<0.05	<0.05	----	<0.3	<0.0005
MW-8	2/22/2021	<0.02	<0.01	<0.05	0.00350	<0.01	0.848	<0.00025	<0.01	<0.01	<0.01	----	<0.06	<0.0005
MW-8	5/19/2021	1.01	0.016	<0.05	0.00155	<0.01	0.886	0.000065	<0.04	<0.02	<0.01	93.1	<0.06	0.00016
MW-8	8/31/2021	0.022	0.014	<0.05	0.00124	<0.01	0.784	<0.00025	<0.02	<0.02	<0.01	111	<0.06	<0.0005
MW-8	11/18/2021	0.096	0.028	<0.05	<0.001	<0.01	0.798	<0.00025	<0.1	<0.02	<0.01	107	<0.06	<0.0005
MW-8	3/28/2022	0.041	0.012	<0.1	0.00279	<0.02	0.603	<0.0001	<0.04	<0.04	<0.02	59.8	<0.12	0.00036
MW-8	5/17/2022	<0.02	<0.01	<0.1	0.00427	<0.02	0.882	<0.00005	<0.04	<0.04	<0.02	77.1	<0.12	<0.0001
MW-8	8/15/2022	<0.02	<0.01	<0.1	0.00767	<0.02	0.811	<0.00005	<0.04	<0.04	<0.02	68.1	0.83	<0.0001
MW-8	11/7/2022	<0.02	<0.01	<0.1	0.00542	<0.02	0.853	<0.0001	<0.04	0.000505	<0.02	68.1	0.89	<0.0002
MW-9	3/28/2022	1.38	0.867	0.138	<0.001	<0.01	0.9	<0.00025	<0.02	<0.02	<0.01	367	<0.06	<0.0005
MW-9	5/17/2022	1.33	0.44	<0.25	<0.0002	<0.05	1.19	<0.00005	<0.1	0.00929	<0.05	478	<0.3	<0.0001
MW-9	8/15/2022	0.038	<0.01	<0.25	0.00058	<0.05	1.15	0.000065	<0.1	0.00399	<0.05	417	<0.3	<0.0001
MW-9	11/7/2022	<0.02	<0.01	<0.25	0.0007	<0.05	1.26	<0.00025	<0.1	0.00628	0.051	418	0.51	<0.0005
MW-10	3/28/2022	<0.02	<0.01	<0.25	0.00289	<0.05	0.988	<0.00025	<0.1	<0.1	<0.05	430	<0.3	0.00055
MW-10	5/17/2022	<0.02	<0.01	<0.25	0.00321	<0.05	1.59	<0.00005	<0.1	0.00102	<0.05	82.6	0.51	<0.0001
MW-10	8/15/2022	<0.02	<0.01	<0.25	0.00404	<0.05	1.32	<0.00005	<0.1	0.000287	<0.05	53.5	0.62	0.00021
MW-10	11/7/2022	<0.02	<0.01	<0.25	0.00264	<0.05	1.4	<0.00025	<0.1	<0.00025	0.06	46.2	0.53	<0.0005
MW-11	3/23/2022	<0.02	0.017	<0.05	<0.002	<0.01	0.41	<0.0005	<0.02	<0.02	<0.01	45.4	<0.06	<0.001
MW-11	5/17/2022	0.03	0.033	<0.05	0.00078	<0.01	0.489	<0.00005	<0.02	<0.02	<0.01	52.4	<0.06	<0.0001
MW-11	8/15/2022	<0.2	<0.01	<0.05	0.00051	<0.01	0.446	<0.00005	<0.02	<0.02	<0.01	47.2	<0.06	<0.0001
MW-11	11/7/2022	<0.02	<0.01	<0.05	0.00029	<0.01	0.432	<0.00005	<0.02	0.00232	<0.01	68.3	<0.06	<0.0001
MW-12	3/28/2022	<0.02	0.012	<0.05	0.00464	<0.01	0.604	<0.00005	<0.02	<0.02	<0.01	10.8	<0.06	<0.0001
MW-12	5/17/2022	1.28	0.957	<0.05	0.00233	<0.01	0.795	<0.00005	<0.02	<0.02	<0.01	14.2	<0.06	<0.0001
MW-12	8/15/2022	9.4	0.511	<0.1	0.00157	<0.02	0.785	<0.00005	<0.04	<0.04	<0.02	25.5	<0.12	<0.0002
MW-12	11/7/2022	5.73	1.55	<0.1	0.00081	<0.02	0.835	<0.0001	<0.04	0.00174	<0.02	26.2	<0.12	<0.0002
MW-13	3/23/2022	<0.02	<0.01	<0.1	0.00178	<0.02	0.938	<0.0001	<0.04	<0.04	<0.02	5.46	<0.12	<0.0002
MW-13	5/10/2022	0.109	<0.01	<0.1	0.00075	<0.02	0.948	<0.0001	<0.04	<0.04	<0.02	4.13	<0.12	<0.0002
MW-13	8/15/2022	<0.02	0.029	<0.1	0.00285	<0.02	0.996	<0.00005	<0.04	<0.04	<0.02	7.84	<0.12	<0.0001
MW-13	11/8/2022	0.064	0.024	<0.1	0.00102	<0.02	1.03	<0.00025	<0.04	<0.00025	<0.02	6.65	<0.12	<0.0002
MW-14	3/28/2022	<0.02	<0.01	<0.1	0.00533	<0.02	1.46	<0.0001	<0.04	<0.04	<0.02	84.8	<0.12	<0.0002
MW-14	5/17/2022	0.02	<0.01	<0.1	0.00382	<0.02	1.26	0.000066	<0.04	<0.04	<0.02	15.9	<0.12	<0.0001
MW-14	8/15/2022	<0.02	<0.01	<0.25	0.0059	<0.05	1.17	<0.00005	<0.1	0.000751	<0.05	17.3	<0.3	<0.0002
MW-14	11/8/2022	<0.02	<0.01	<0.25	0.00448	<0.05	1.24	<0.0005	<0.1	0.000864	<0.05	18	0.36	<0.001
Field QA/QC Samples														
MW-6 (duplicate)	9/19/2019	10.8	0.08	<0.3	0.0004	<0.05	0.3	0.00031	<0.05	0.05	<0.05	----	0.30	0.0005
MW-7 (duplicate)	6/12/2019	1.28	<0.01	<0.3	<0.2	<0.05	0.4	<0.04	<0.05	<0.05	<0.05	----	0.20	<0.2
MW-7 (duplicate)	11/9/2019	14.7	0.08	<0.3	<0.001	<0.05	0.2	<0.0003	<0.05	<0.05	<0.05	----	<0.2	<0.0005
MW-7 (duplicate)	3/9/2020	14.5	0.05	<0.3	<0.0002	<0.05	0.1	0.0001	<0.05	<0.05	<0.05	----	<0.2	<0.0001
MW-7 (duplicate)	9/16/2020	10.9	0.03	0.11	<0.0002	<0.01	0.13	0.00007	0.01	<0.01	<0.01	----	0.12	0.0002
MW-7 (duplicate)	2/22/2021	10.3	0.068	<0.05	<0.001	<0.01	0.167	<0.00025	<0.01	<0.01	<0.01	----	<0.06	<0.0005
MW-7 (duplicate)	5/19/2021	7.48	0.028	<0.05	<0.0002	<0.01	0.139	0.000068	<0.02	<0.02	<0.01	457	<0.06	<0.0001
MW-7 (duplicate)	8/31/2021	0.907	<0.01	<0.05	<0.001	<0.01	0.309	<0.00025	<0.02	<0.02	<0.01	390	<0.06	<0.0005
MW-7 (duplicate)	3/22/2022	1.2	0.018	<0.25	<0.001	<0.05	0.346	<0.00025	<0.1	<0.1	<0.05	383	<0.3	<0.0005
MW-7 (duplicate)	5/10/2022	0.2	<0.01	<0.25	<0.001	<0.05	0.386	<0.00025	<0.1	0.0022	<0.05	373	<0.3	<0.0005
MW-8 (duplicate)	11/23/2020	<0.02	<0.01	<0.25	0.00234	<0.05	0.834	<0.00025	<0.05	<0.05	<0.05	----	<0.3	<0.0005
MW-8 (duplicate)	11/18/2021	0.107	0.029	<0.05	0.00084	<0.01	0.809	<0.0001	<0.04	<0.02	<0.01	104	<0.06	<0.0002
MW-8 (duplicate)	8/15/2022	<0.02	<0.01	<0.1	0.00788	<0.02	0.803	<0.00005	<0.04	<0.04	<0.02	68.1	0.83	<0.0001
MW-8 (duplicate)	11/7/2022	0.263	<0.01	<0.1	0.00533	<0.02	0.872	<0.0001	<0.04	0.000517	<0.02	69.6	0.86	<0.0002
CDPHE Regulation 41 Table 3 Groundwater Quality Reference Standards (Agricultural Use)		*100*	*10*	*5.0*	*0.10*	*0.10*	*5.0*	*0.01*	*0.10*	*0.05*	*0.2*		*5.0*	*0.10*

Notes:

Concentrations in bold indicate exceedance of CDPHE Groundwater Quality Reference Standard for Agricultural Use.
MW-5 has been dry since installation and initial monitoring on 7/14/2008.
2020Q2 monitoring not conducted due to COVID-19 restrictions.

Table 2 (Page 3 of 3). GCC Quarterly Compliance Groundwater Monitoring Data 2018-2022.

Location ID	Sample Date	Lithium (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Barium (mg/L)
MW-5	12/9/2019											
MW-5	9/17/2020											
MW-5	11/23/2020											
MW-5	5/12/2021											
MW-5	11/18/2021											
MW-5	3/24/2022											
MW-5	5/10/2022											
MW-5	11/8/2022											
MW-6	1/3/2018	0.664	----	**0.59**	<0.0002	0.029	----	<0.03	----	<0.005	0.025	----
MW-6	4/27/2018	0.689	----	**1.14**	<0.0002	0.069	----	<0.03	----	<0.005	<0.01	0.032
MW-6	9/26/2018											
MW-6	12/12/2018	0.476	----	**0.66**	<0.0002	0.017	----	0.0062	----	0.00116	0.009	----
MW-6	3/7/2019										DRY	
MW-6	6/12/2019	0.520	----	**0.97**	<0.0002	0.150	----	**0.0966**	----	<0.03	<0.05	----
MW-6	9/19/2019	0.490	----	**0.58**	<0.0002	0.130	----	**0.1400**	----	<0.03	<0.05	----
MW-6	12/9/2019	0.490	----	**0.49**	<0.0002	0.110	----	**0.0880**	----	<0.03	<0.05	----
MW-6	3/9/2020	0.480	**----**	**0.40**	<0.0002	0.110	**----**	**0.0401**	**----**	<0.03	<0.05	**----**
MW-6	9/16/2020	0.486	----	**0.39**	<0.0002	0.088	----	0.0064	----	<0.01	0.020	----
MW-6	11/23/2020	0.448	----	**0.33**	<0.0002	0.114	----	0.0155	----	<0.05	0.110	----
MW-6	2/22/2021	0.476	----	**0.32**	<0.0002	0.0810	----	0.00487	----	<0.05	<0.1	----
MW-6	5/19/2021	0.472	344	**0.36**	<0.0002	0.058	9.9	0.0023	810	<0.01	<0.02	----
MW-6	8/31/2021	0.491	498	**0.28**	<0.0002	0.085	11.2	0.0148	575	<0.01	<0.02	**----**
MW-6	11/18/2021	0.469	473	**0.24**	<0.0002	0.076	10.3	0.0153	589	<0.01	<0.02	----
MW-6	3/22/2022	0.434	460	0.08	<0.0002	<0.04	11.5	0.0465	362	<0.05	<0.1	----
MW-6	5/17/2022	0.464	422	0.20	<0.0002	0.121	10.9	0.0538	522	<0.05	<0.1	----
MW-6	8/15/2022	0.425	410	**0.29**	<0.0002	**0.409**	10.8	0.0112	456	<0.05	<0.1	**----**
MW-6	11/7/2022	0.429	411	**0.61**	<0.0002	**0.320**	10.3	<0.0005	473	<0.05	<0.1	----
MW-7	1/3/2018	0.779	----	0.20	<0.0002	0.016	----	<0.03	----	0.0023	0.027	----
MW-7	4/27/2018	0.665	----	0.17	<0.0002	0.006	----	<0.03	----	<0.005	<0.01	0.0142
MW-7	9/26/2018											
MW-7	12/12/2018	0.571	**----**	0.10	<0.0002	0.004	**----**	<0.03	**----**	<0.005	0.010	**----**
MW-7	3/7/2019	0.557	----	0.15	<0.0002	0.008	----	<0.03	----	<0.005	0.010	----
MW-7	6/12/2019	0.620	----	0.14	<0.0002	<0.04	----	0.0087	----	<0.03	<0.05	----
MW-7	9/18/2019	0.480	----	0.10	<0.0002	<0.04	----	**0.0762**	----	<0.03	<0.05	----
MW-7	12/9/2019	0.440	----	<0.05	<0.0002	<0.04	----	**0.0903**	----	<0.03	<0.05	----
MW-7	3/9/2020	0.600	----	<0.05	<0.0002	<0.04	----	**0.0701**	----	<0.03	<0.05	----
MW-7	9/16/2020	0.428	**----**	0.01	<0.0002	0.013	**----**	**0.0655**	**----**	<0.01	<0.02	**----**
MW-7	11/23/2020	0.376	----	<0.05	<0.0002	<0.04	----	**0.0452**	----	<0.05	<0.1	----
MW-7	2/22/2021	0.634	----	<0.05	<0.002	<0.04	----	**0.0348**	----	<0.05	<0.1	----
MW-7	5/19/2021	0.473	530	<0.01	<0.0002	0.023	13.7	**0.0401**	393	<0.01	<0.02	----
MW-7	8/31/2021	0.521	397	0.07	<0.0002	0.016	10.8	0.0115	666	<0.01	<0.02	----
MW-7	11/18/2021	0.375	386	0.06	<0.0002	0.016	10.6	0.0284	402	<0.01	<0.02	**----**
MW-7	3/22/2022	0.549	428	0.06	<0.0002	<0.04	10.8	0.0114	671	<0.05	<0.1	----
MW-7	5/10/2022	0.551	392	0.09	<0.0002	<0.04	10.1	0.0055	662	<0.05	<0.1	----
MW-7	8/15/2022	0.543	371	0.07	<0.0002	<0.04	10.5	0.0008	703	<0.05	<0.1	----
MW-7	11/7/2022	0.335	365	<0.05	<0.0002	<0.04	11.3	**0.0371**	306	<0.05	<0.1	----
MW-8	3/9/2020											
MW-8	9/16/2020											
MW-8	9/28/2020	0.510		**0.30**	<0.0002	<0.04		0.0008		<0.05	<0.1	----
MW-8	11/9/2020											
MW-8	11/23/2020	0.333	----	**0.25**	<0.0002	<0.04	----	<0.0005	----	<0.05	<0.1	----
MW-8	2/22/2021	0.360	**----**	**0.31**	<0.0002	<0.008	**----**	<0.0005	**----**	<0.01	<0.02	**----**
MW-8	5/19/2021	0.365	31.2	**0.28**	<0.0002	<0.008	6.2	0.0002	1250	<0.01	<0.02	----
MW-8	8/31/2021	0.383	38.5	**0.32**	<0.0002	<0.008	5.9	<0.0005	1300	<0.01	<0.02	----
MW-8	11/18/2021	0.378	46.5	**0.27**	<0.0002	<0.008	6.4	<0.0005	1150	<0.02	<0.02	----
MW-8	3/28/2022	0.258	19.7	0.20	<0.0002	<0.016	4.3	<0.0002	805	<0.02	<0.04	**----**
MW-8	5/17/2022	0.388	28.9	**0.30**	<0.0002	<0.016	5.3	<0.0001	1180	<0.02	<0.04	----
MW-8	8/15/2022	0.366	26.6	**0.24**	<0.0002	<0.016	5.4	<0.0002	1110	<0.02	<0.04	----
MW-8	11/7/2022	0.368	27.1	**0.24**	<0.0002	<0.016	5.4	<0.0005	1160	<0.02	<0.04	----
MW-9	3/28/2022	0.293	178	**0.61**	<0.0002	0.022	8.1	<0.0005	540	<0.01	<0.02	----
MW-9	5/17/2022	0.356	216	**0.76**	<0.0002	<0.04	9.3	0.0003	694	<0.05	<0.1	----
MW-9	8/15/2022	0.358	156	**0.55**	<0.0002	<0.04	9.5	<0.0001	716	<0.05	<0.1	**----**
MW-9	11/7/2022	0.375	158	**0.55**	<0.0002	<0.04	9.0	<0.0001	741	<0.05	<0.1	----
MW-10	3/28/2022	0.310	198	**0.69**	<0.0002	<0.04	8.9	<0.0005	615	<0.05	<0.1	----
MW-10	5/17/2022	0.337	24.2	0.07	<0.0002	<0.04	6.9	0.0004	1400	<0.05	<0.1	----
MW-10	8/15/2022	0.311	16.2	<0.05	<0.0002	<0.04	6.9	<0.0002	1240	<0.05	<0.1	----
MW-10	11/7/2022	0.315	14.7	<0.05	<0.0002	<0.04	6.3	<0.0005	1240	<0.05	<0.1	**----**
MW-11	3/23/2022	0.150	24.4	<0.01	<0.0002	<0.008	3.6	<0.002	461	<0.01	<0.02	----
MW-11	5/17/2022	0.175	28.9	0.022	<0.0002	<0.008	3.4	**0.1320**	513	<0.01	<0.02	----
MW-11	8/15/2022	0.163	26.3	<0.01	<0.0002	<0.008	3.5	**0.1250**	477	<0.01	<0.02	----
MW-11	11/7/2022	0.147	33.9	0.02	<0.0002	0.011	3.7	**0.1620**	412	<0.01	<0.02	----
MW-12	3/28/2022	0.108	3.12	0.01	<0.0002	<0.008	2.2	<0.0002	488	<0.01	<0.02	**----**
MW-12	5/17/2022	0.174	4.55	0.03	<0.0002	<0.008	2.9	0.0007	707	<0.01	<0.02	----
MW-12	8/15/2022	0.193	6.19	<0.02	<0.0002	<0.016	3.7	<0.0002	805	<0.02	<0.04	----
MW-12	11/7/2022	0.204	7.38	0.07	<0.0002	0.099	4.1	0.0008	861	<0.02	<0.04	**----**
MW-13	3/23/2022	0.182	1.45	<0.02	<0.0002	<0.016	2.9	<0.0002	885	<0.02	<0.04	----
MW-13	5/10/2022	0.180	1.00	<0.02	<0.0002	<0.016	2.4	0.0184	782	<0.02	<0.04	**----**
MW-13	8/15/2022	0.207	1.74	<0.02	<0.0002	<0.016	3.1	<0.0002	910	<0.02	<0.04	----
MW-13	11/8/2022	0.227	1.67	<0.02	<0.0002	<0.016	3.1	<0.0002	977	<0.02	<0.04	----
MW-14	3/28/2022	0.319	23.3	<0.02	<0.0002	<0.016	7.1	0.0098	1260	<0.02	<0.1	----
MW-14	5/17/2022	0.404	4.75	<0.02	<0.0002	<0.016	4.6	0.0012	1390	<0.02	<0.04	----
MW-14	8/15/2022	0.358	4.86	<0.05	<0.0002	<0.04	5.3	<0.0002	1450	<0.05	<0.1	**----**
MW-14	11/8/2022	0.358	4.99	<0.05	<0.0002	<0.04	5.7	<0.001	1610	<0.05	<0.1	----
Field QA/QC Samples												
MW-6 (duplicate)	9/19/2019	0.480	----	**0.57**	<0.0002	0.150	----	**0.1410**	----	<0.03	<0.05	----
MW-7 (duplicate)	6/12/2019	0.610	----	0.14	<0.0002	<0.04	----	0.0084	----	<0.03	<0.05	----
MW-7 (duplicate)	11/9/2019	0.440	**----**	<0.05	<0.0002	<0.04	**----**	**0.0903**	**----**	<0.03	<0.05	**----**
MW-7 (duplicate)	3/9/2020	0.600	----	<0.05	<0.0002	<0.04	----	**0.0704**	----	<0.03	<0.05	----
MW-7 (duplicate)	9/16/2020	0.425	----	0.01	<0.0002	0.010	----	**0.0654**	----	<0.01	<0.02	----
MW-7 (duplicate)	2/22/2021	0.619	----	0.020	<0.0002	0.0197	----	**0.0329**	----	<0.01	<0.02	----
MW-7 (duplicate)	5/19/2021	0.469	528	<0.01	<0.0002	0.012	13.9	**0.0398**	390	<0.01	<0.02	----
MW-7 (duplicate)	8/31/2021	0.520	396	0.07	<0.0002	0.017	10.9	0.0109	661	<0.01	<0.02	**----**
MW-7 (duplicate)	3/22/2022	0.520	431	<0.05	<0.0002	<0.04	10.5	0.0119	642	<0.05	<0.1	----
MW-7 (duplicate)	5/10/2022	0.559	389	0.10	<0.0002	<0.04	10.3	0.0061	675	<0.05	<0.1	----
MW-8 (duplicate)	11/23/2020	0.337	----	**0.25**	<0.0002	<0.04	----	<0.0005	----	<0.05	<0.1	----
MW-8 (duplicate)	11/18/2021	0.380	43.2	**0.27**	<0.0002	<0.008	6.3	<0.0002	1150	<0.02	<0.02	----
MW-8 (duplicate)	8/15/2022	0.362	26.5	**0.24**	<0.0002	<0.016	5.4	<0.0002	1100	<0.02	<0.04	**----**
MW-8 (duplicate)	11/7/2022	0.372	27.6	**0.25**	<0.0002	<0.016	5.7	<0.0005	1160	<0.02	<0.04	----
CDPHE Regulation 41 Table 3 Groundwater Quality Reference Standards (Agricultural Use)		*2.5*		*0.20*	*0.01*	*0.20*		*0.02*		*0.10*	*2.0*	**----**

Notes:

Concentrations in bold indicate exceedance of CDPHE Groundwater Quality Reference Standard for Agricultural Use.
MW-5 has been dry since installation and initial monitoring on 7/14/2008.
2020Q2 monitoring not conducted due to COVID-19 restrictions.

FIGURES

Figure 1. GCC site map with 2022 compliance groundwater monitoring locations.

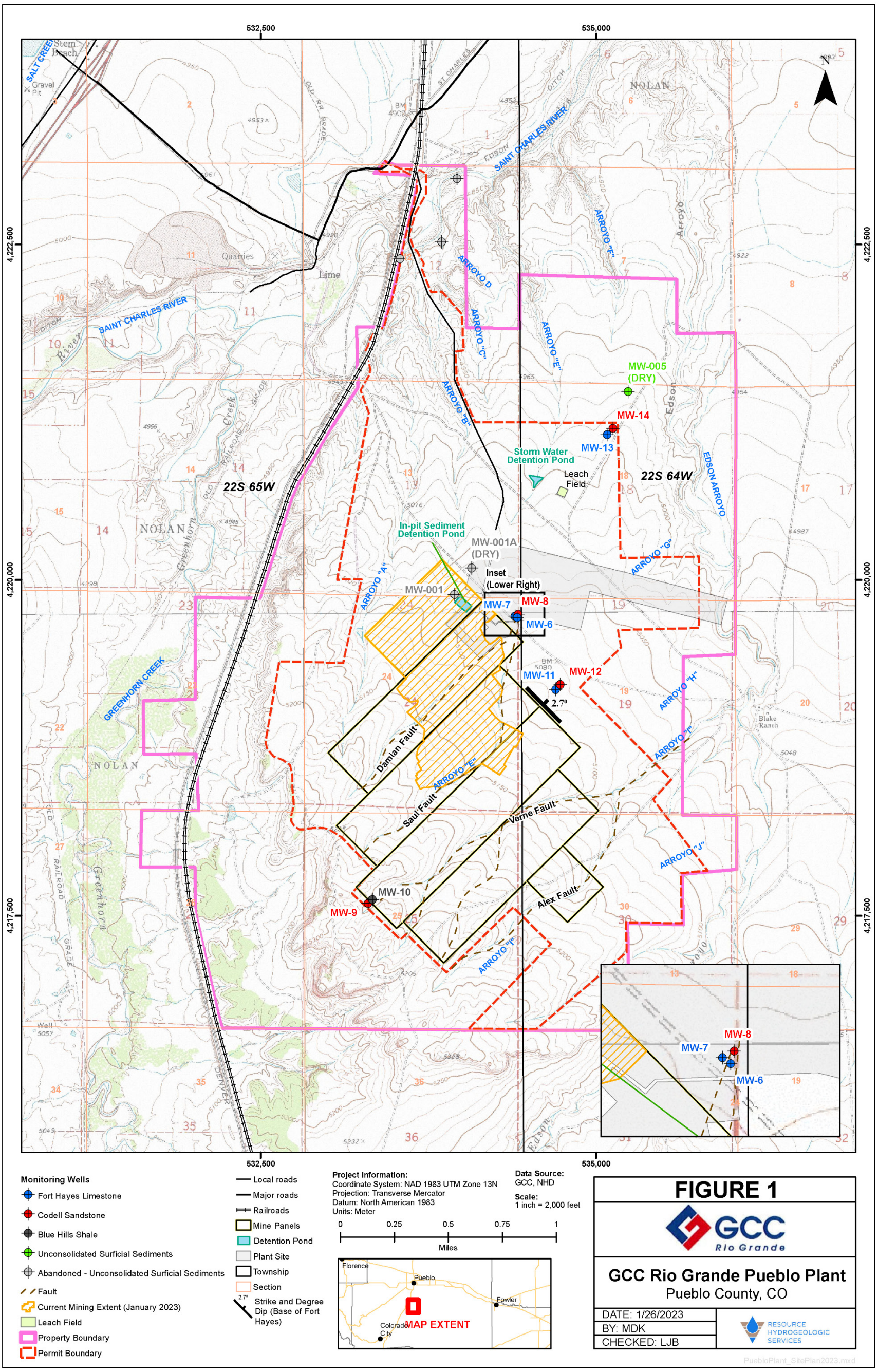


Figure 2. GCC Rio Grande Pueblo Plant 2022 Fort Hayes Stiff Diagrams.

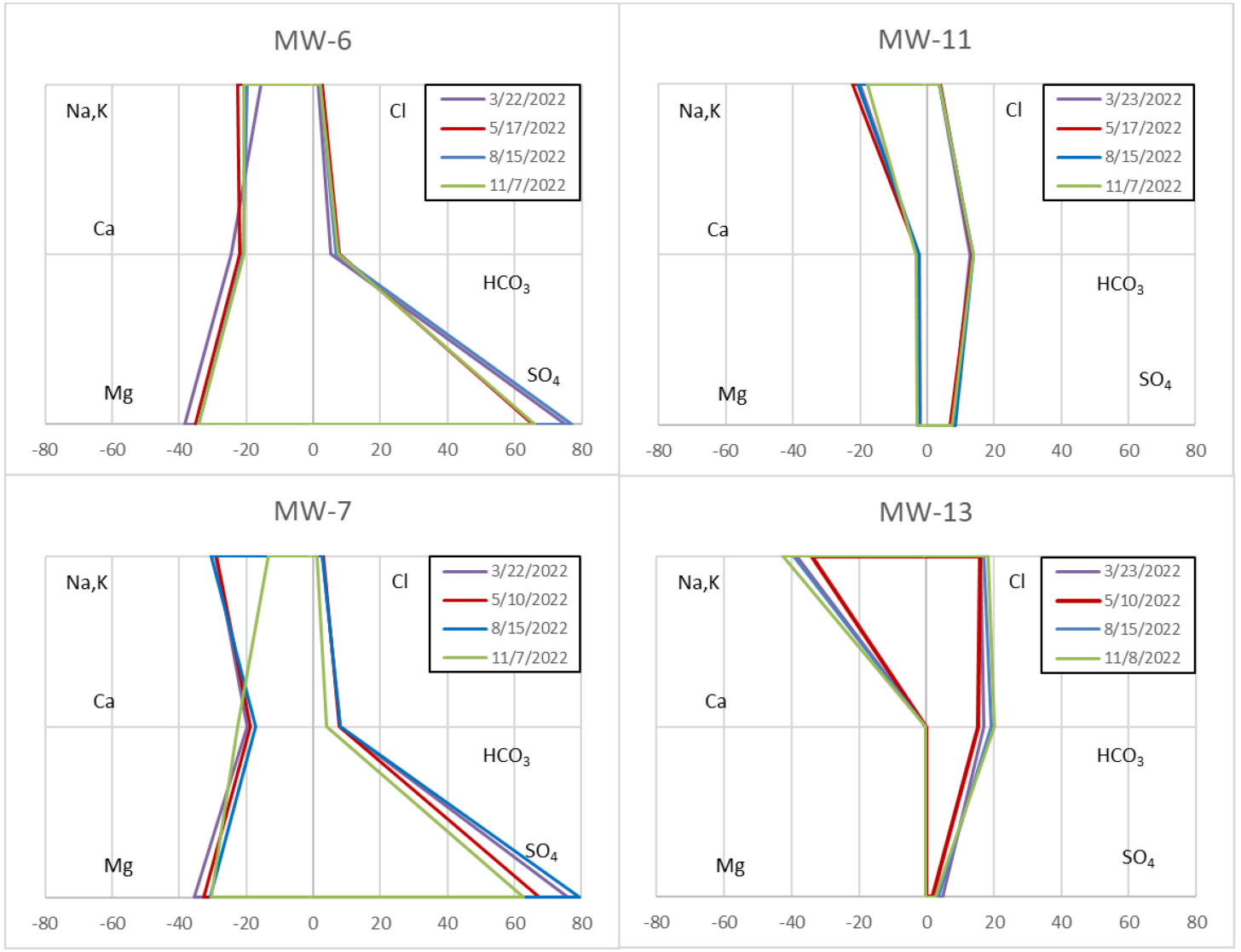


Figure 3. GCC Rio Grande Pueblo Plant 2022 Codell Stiff Diagrams.

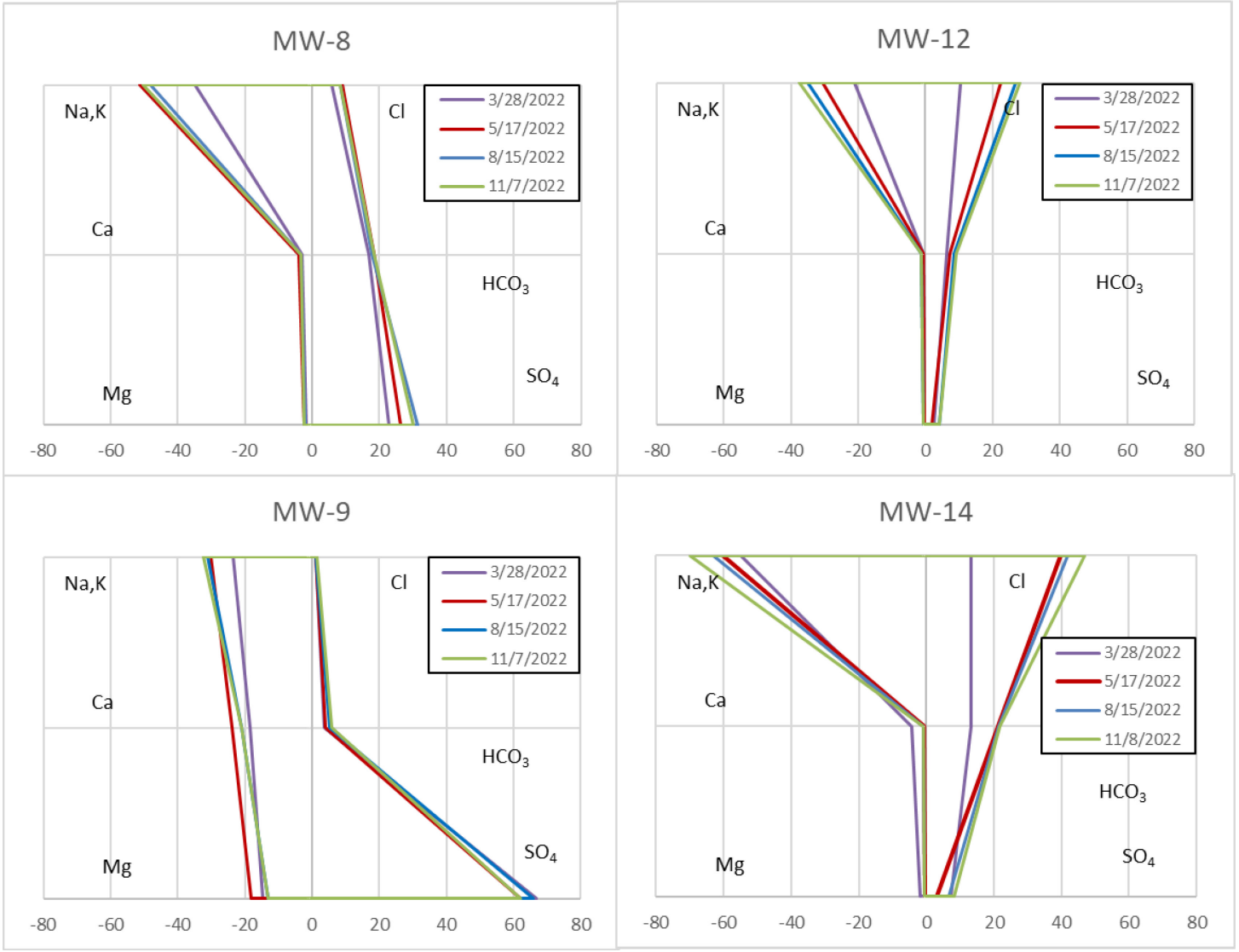


Figure 4. GCC Rio Grande Pueblo Plant 2022 Blue Hills Stiff Diagram.

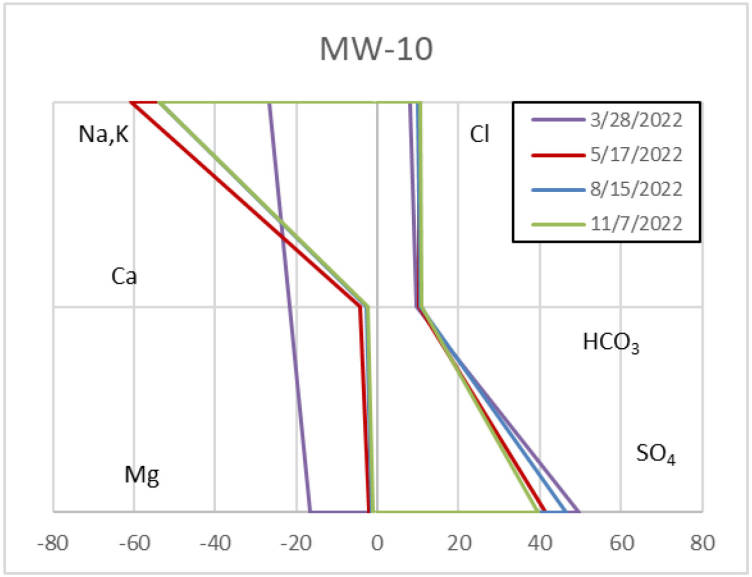
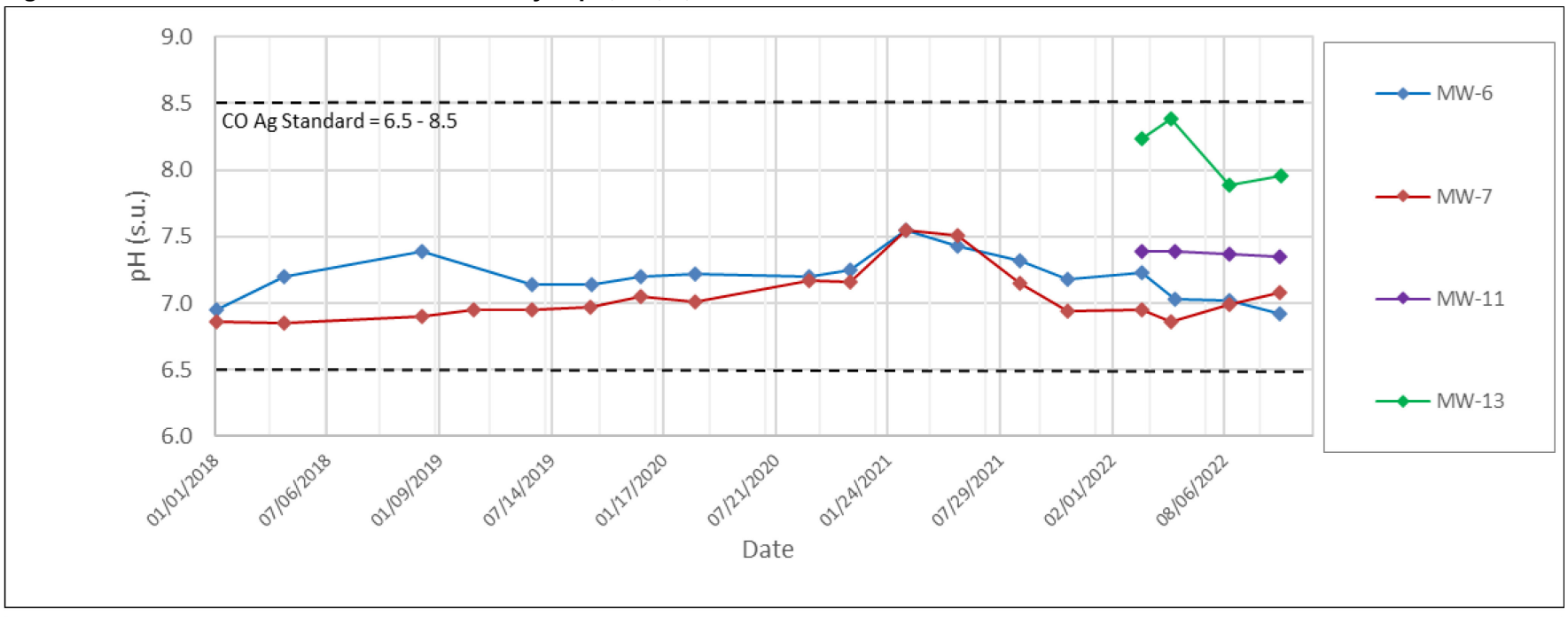
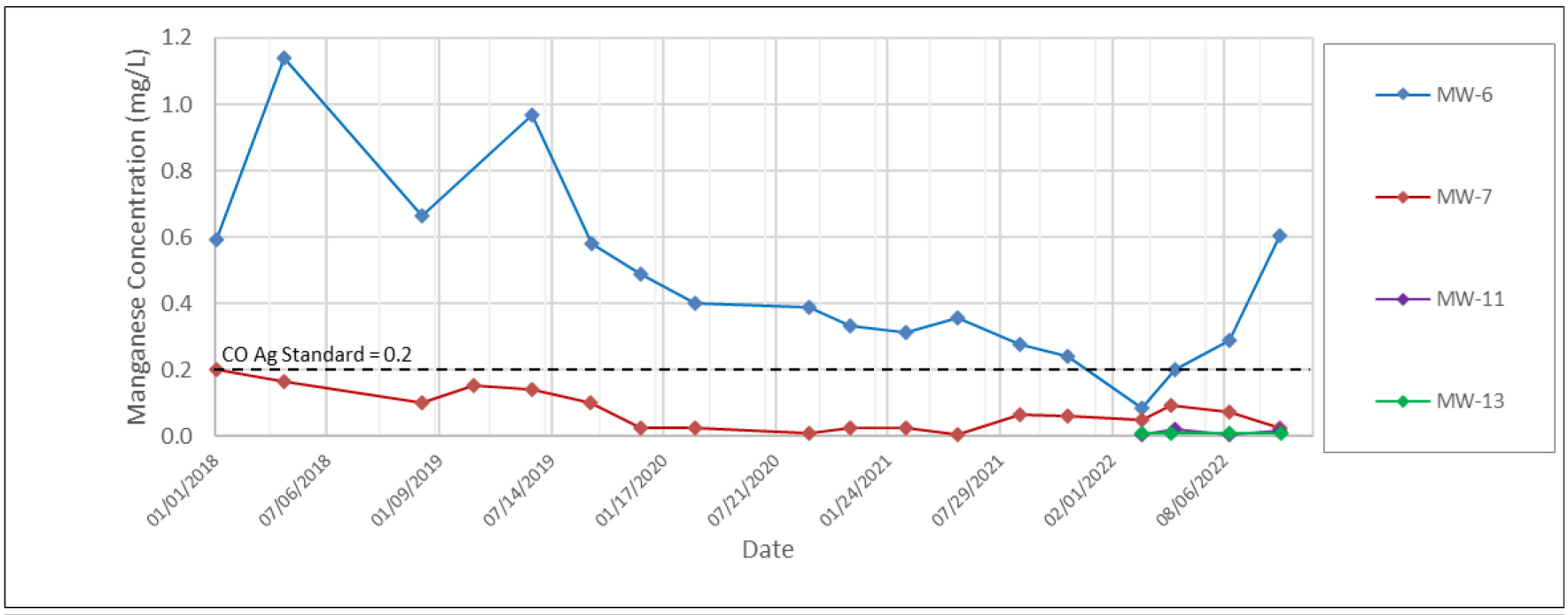
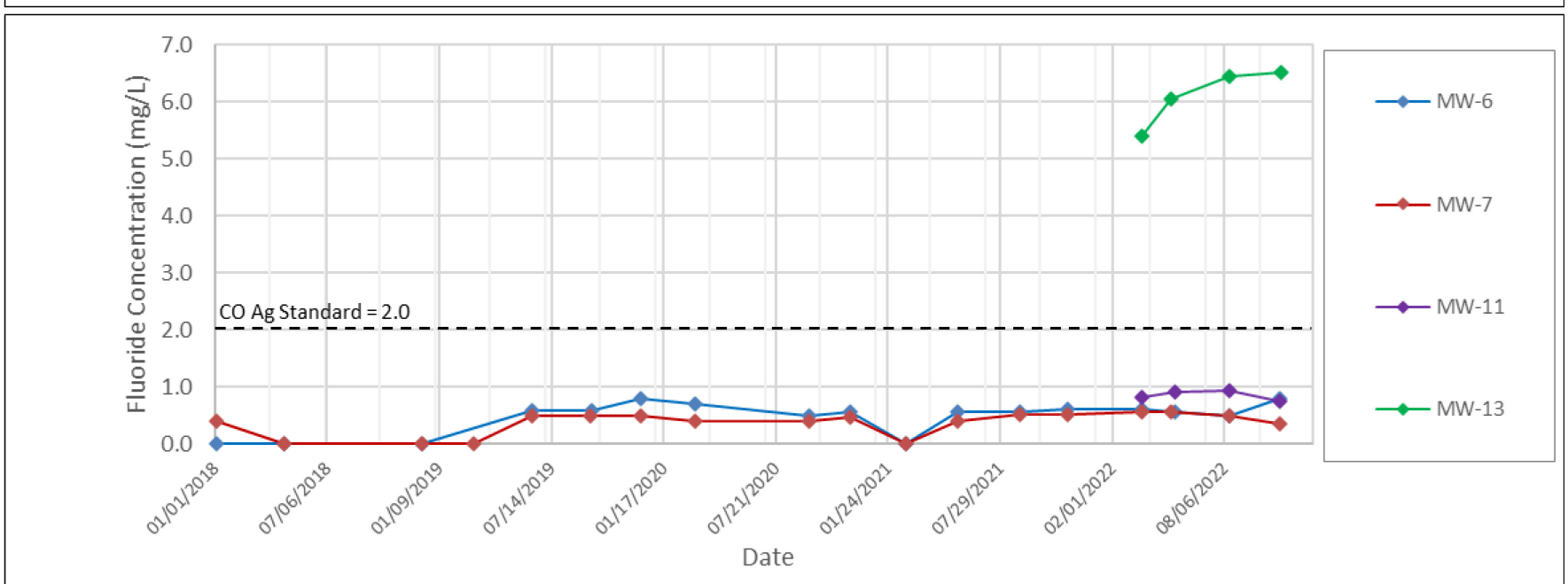


Figure 5. GCC Rio Grande Pueblo Plant Fort Hayes pH, Mn, F, Se Time Series Plots – Full Period of Record.







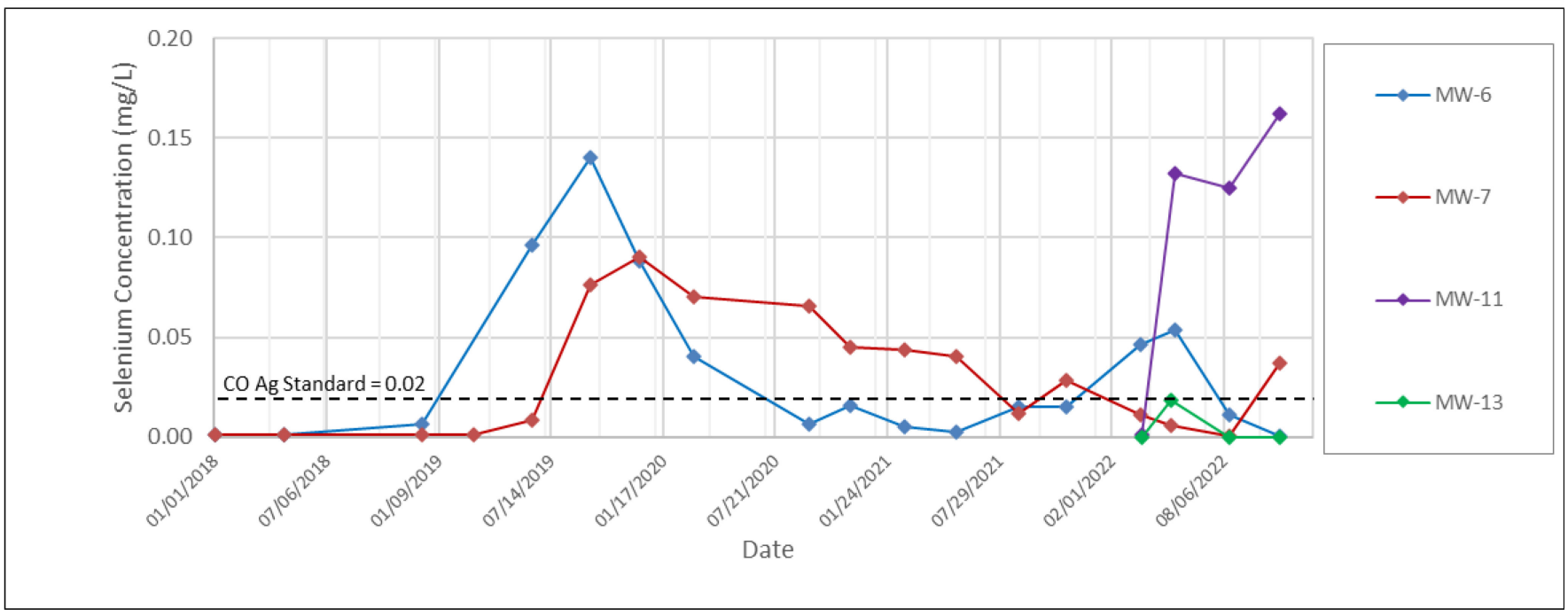
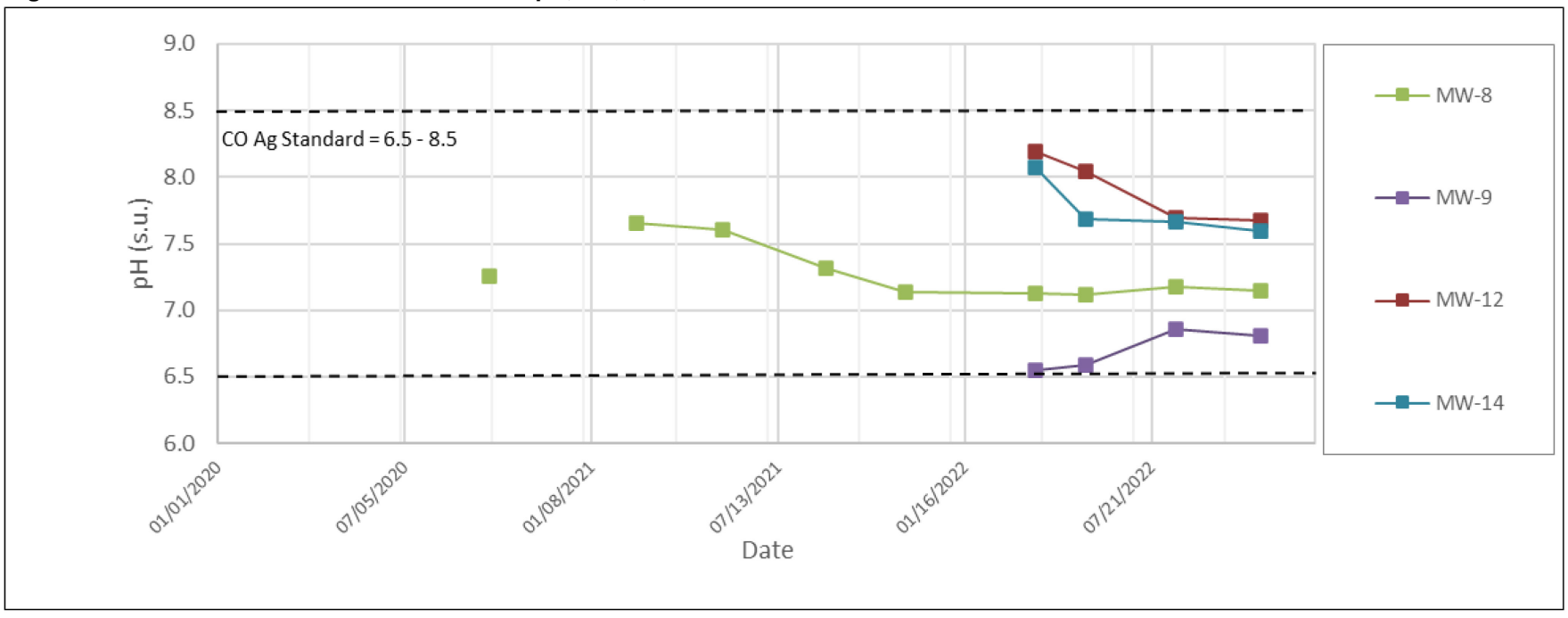
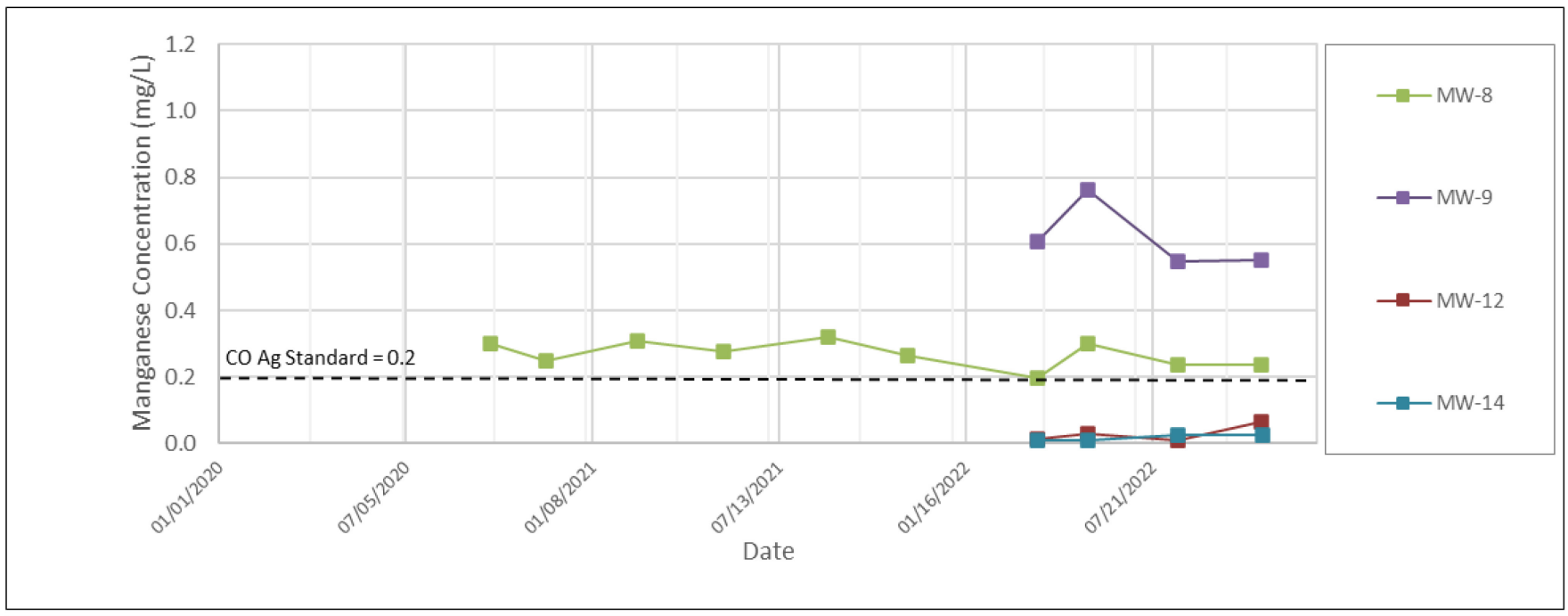
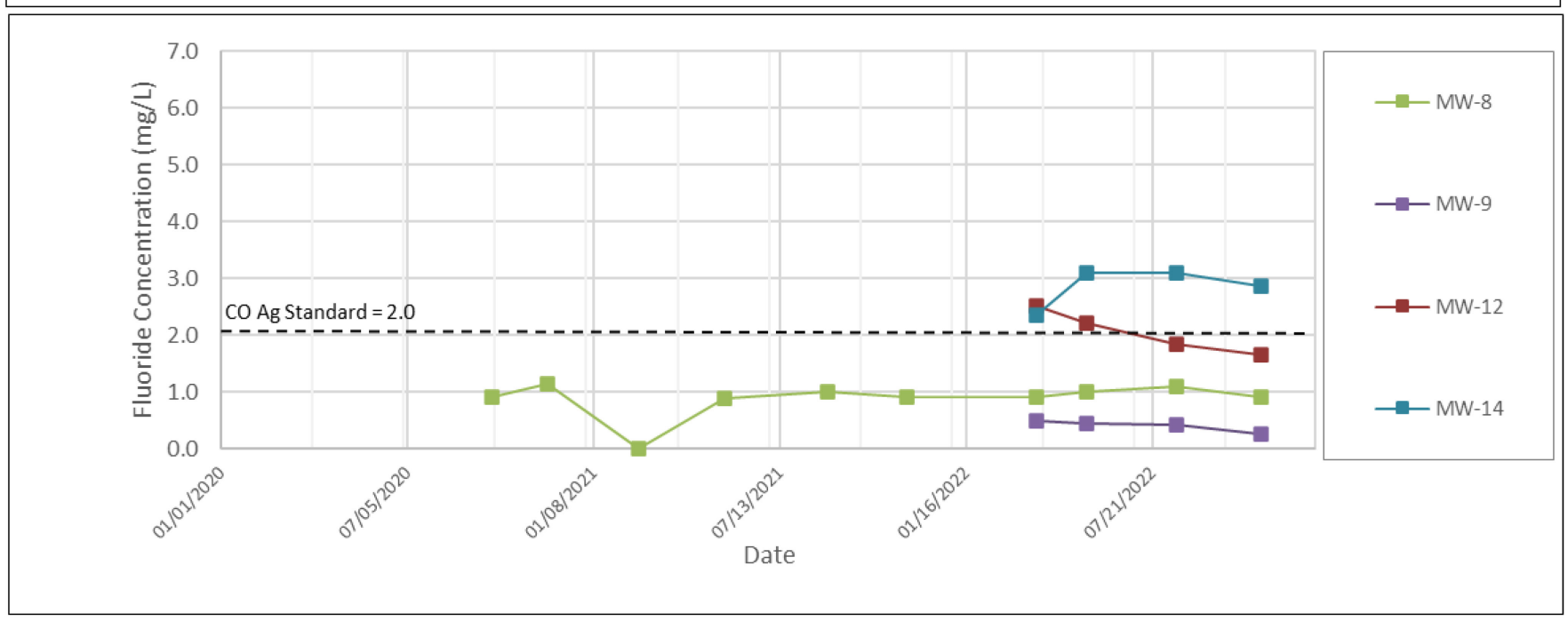


Figure 6. GCC Rio Grande Pueblo Plant Codell pH, Mn, F, Se Time Series Plots – Full Period of Record.







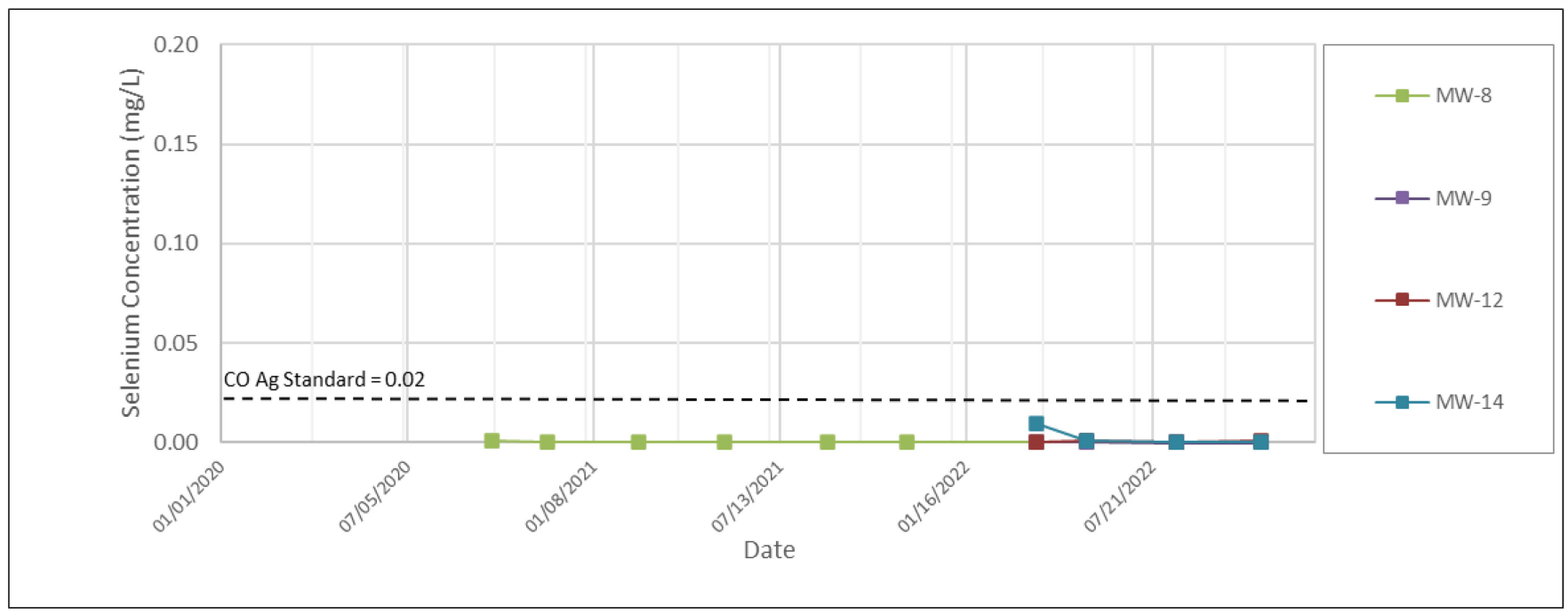
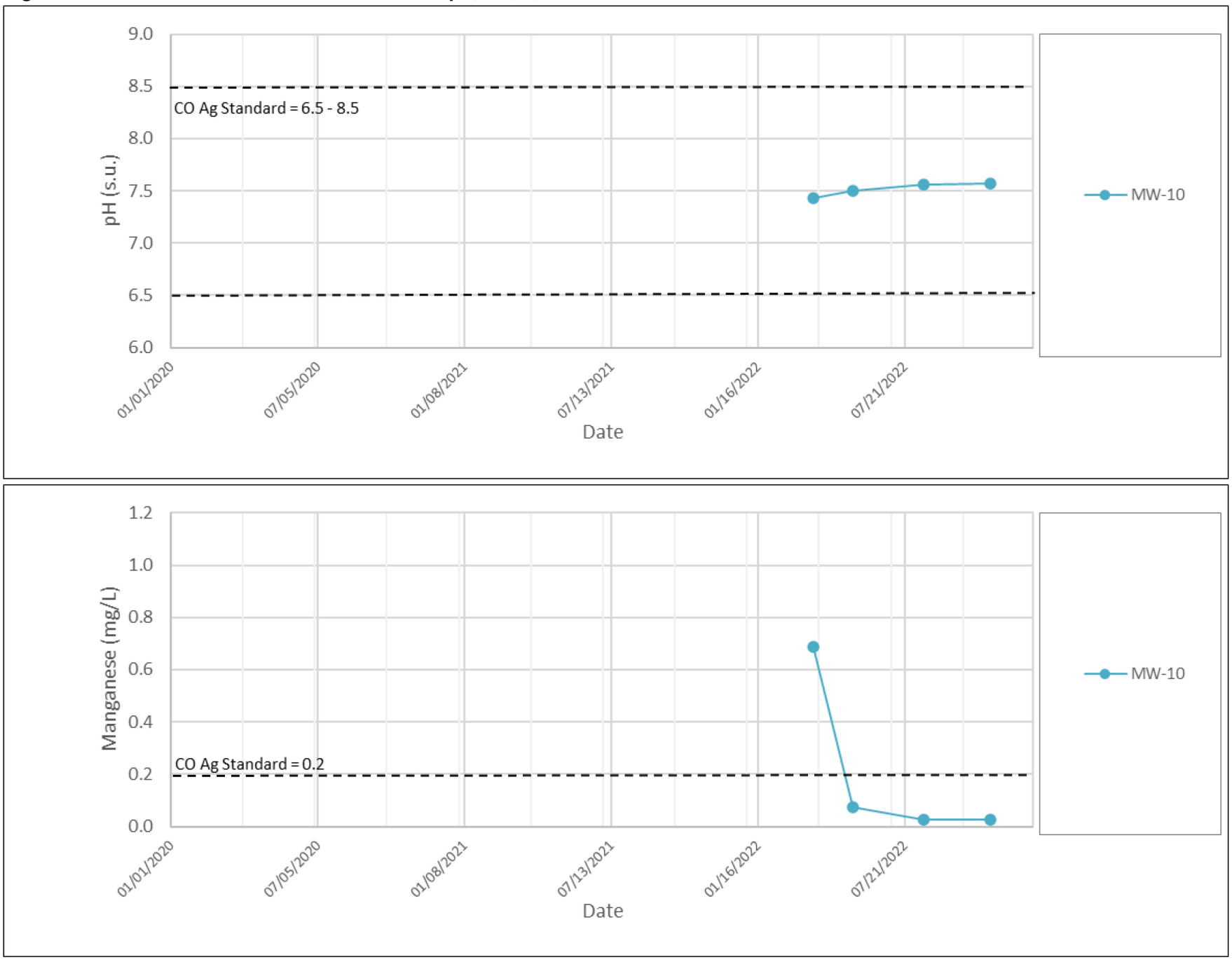
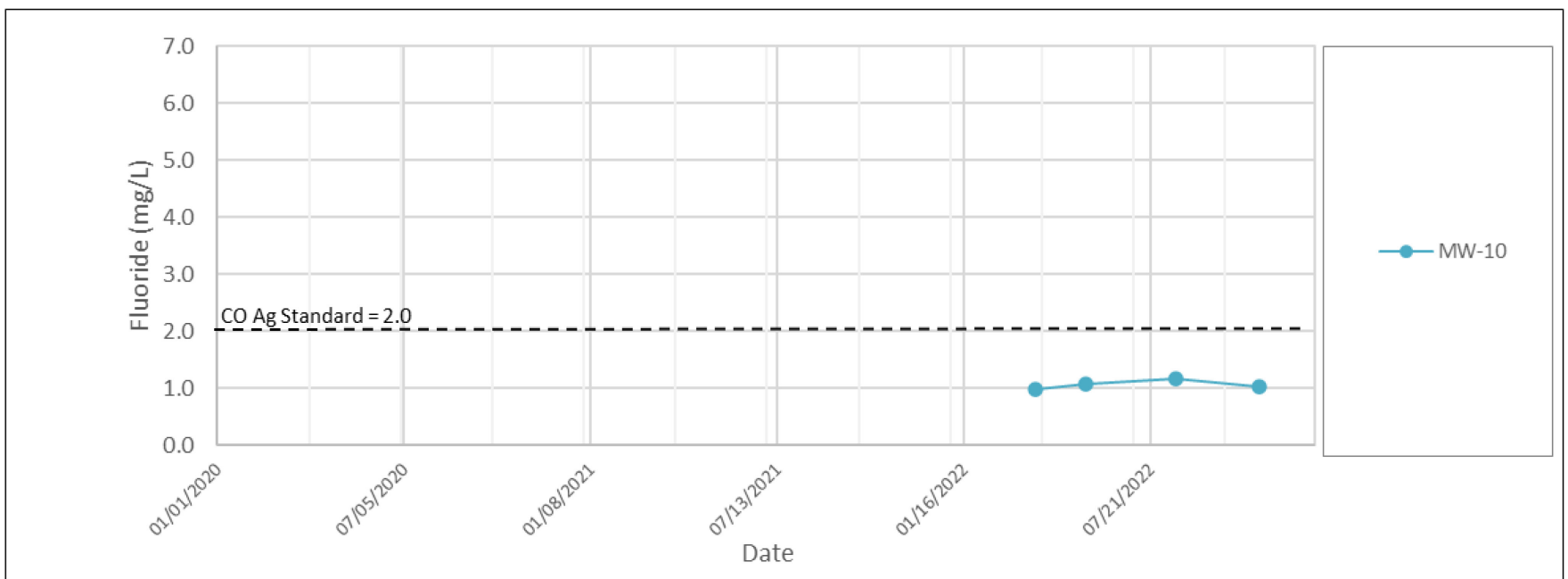


Figure 7. GCC Rio Grande Pueblo Plant Blue Hills pH, Mn, F, Se Time Series Plots – Full Period of Record.





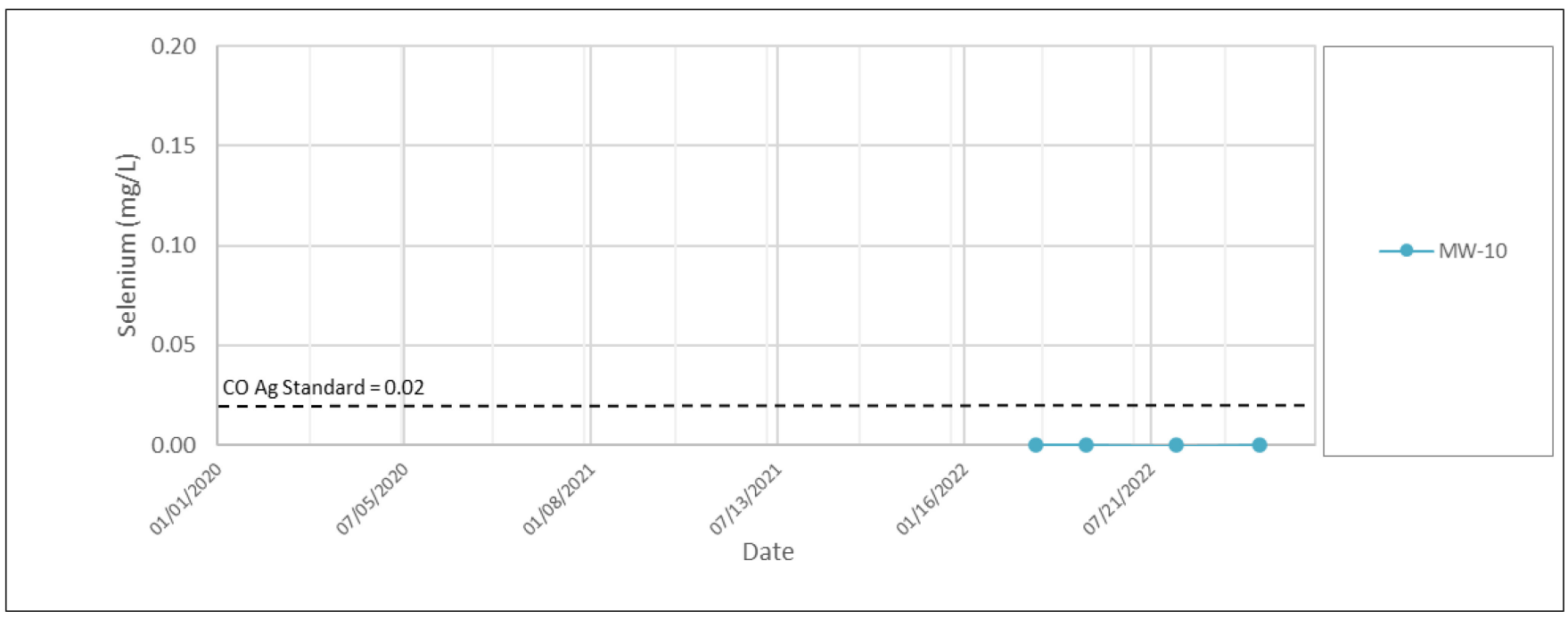


Figure 8. GCC Rio Grande Pueblo Plant Bedrock Groundwater Hydrograph – Full Period of Record 2018-2022.

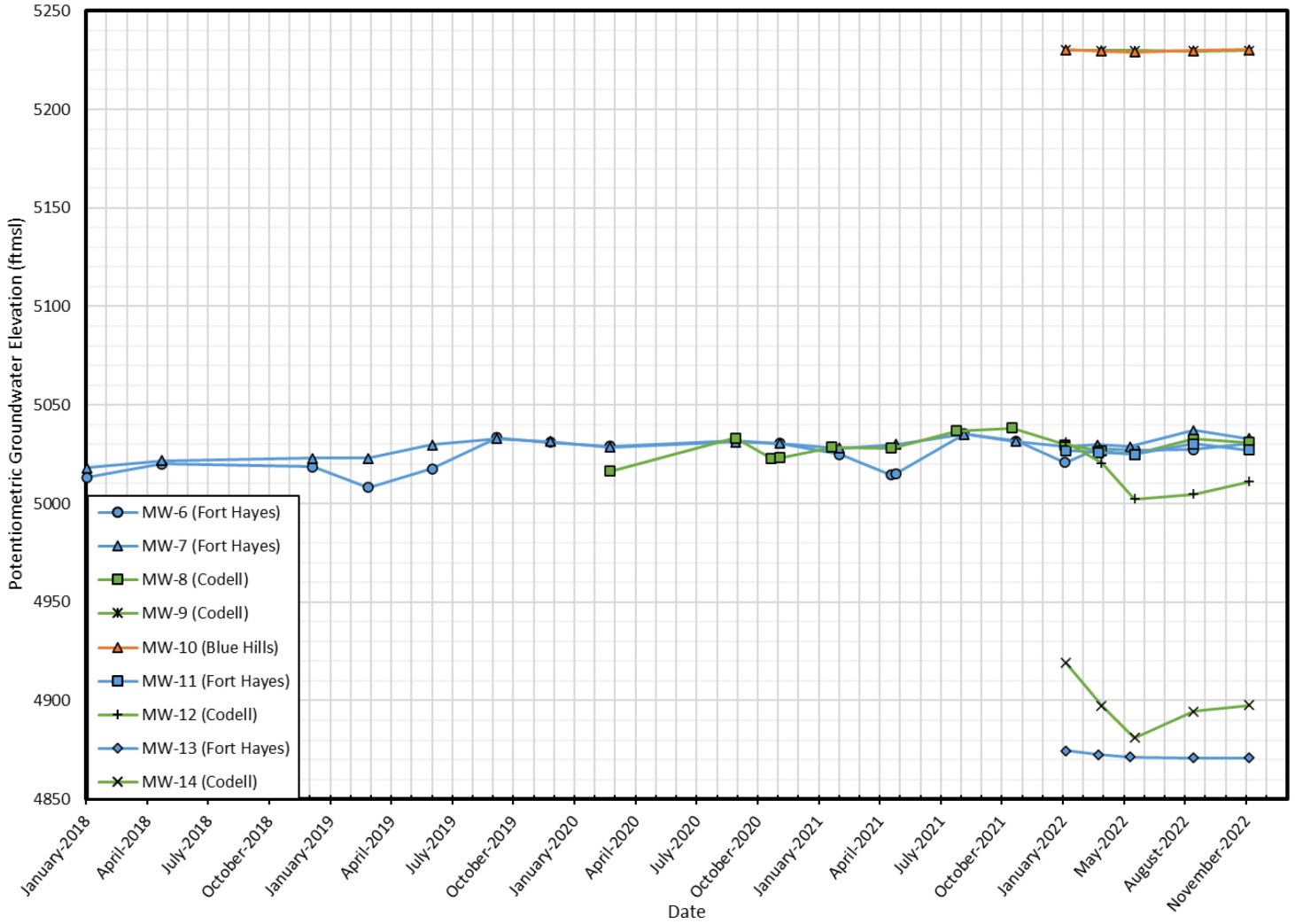


Figure 9. GCC Rio Grande Pueblo Plant MW-6, MW-7 & MW-8 Groundwater Hydrograph – Full Period of Record 2018-2022.

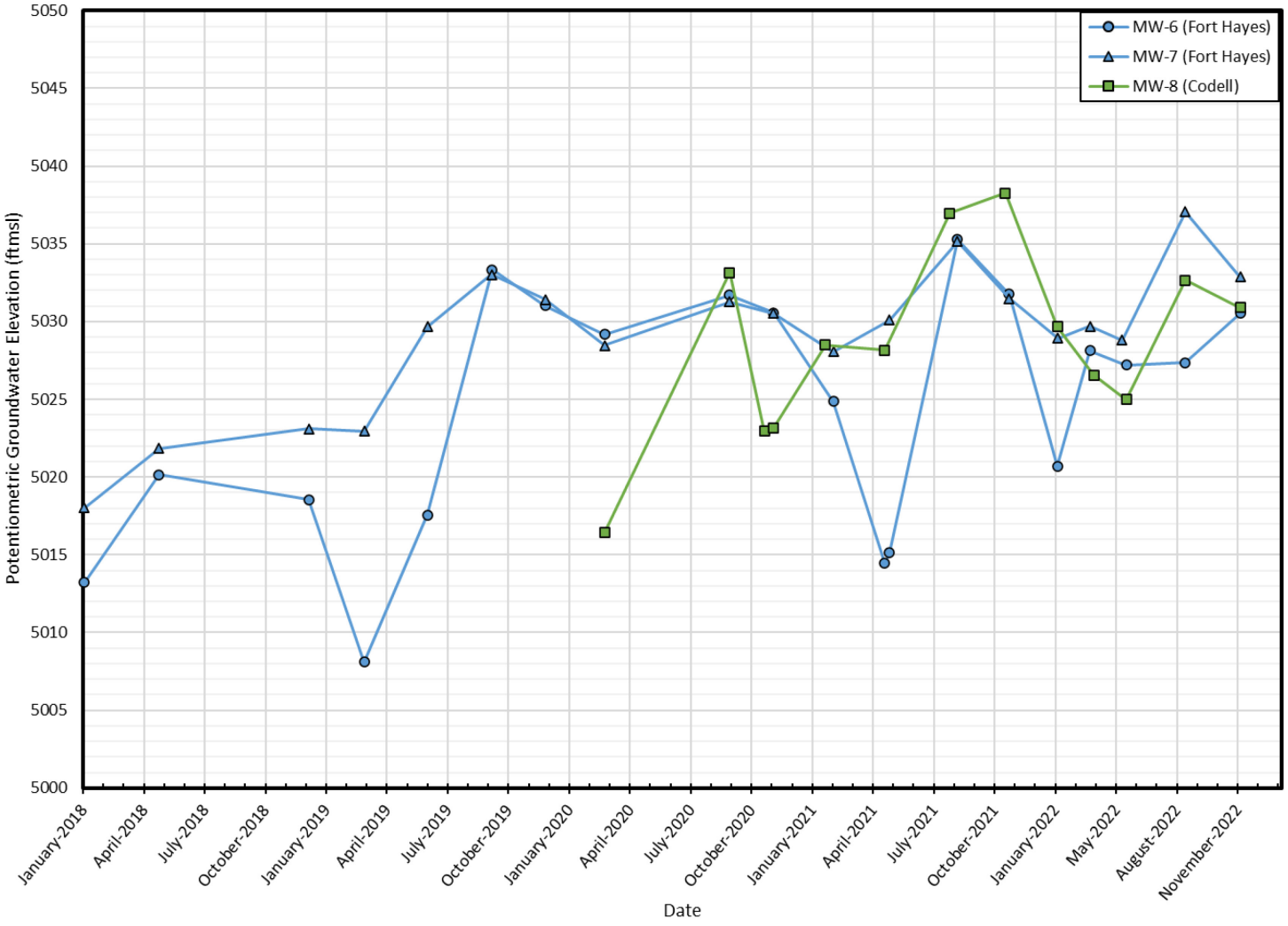


Figure 10. GCC Rio Grande Pueblo Plant MW-9 & MW-10 Groundwater Hydrograph – Full Period of Record 2022.

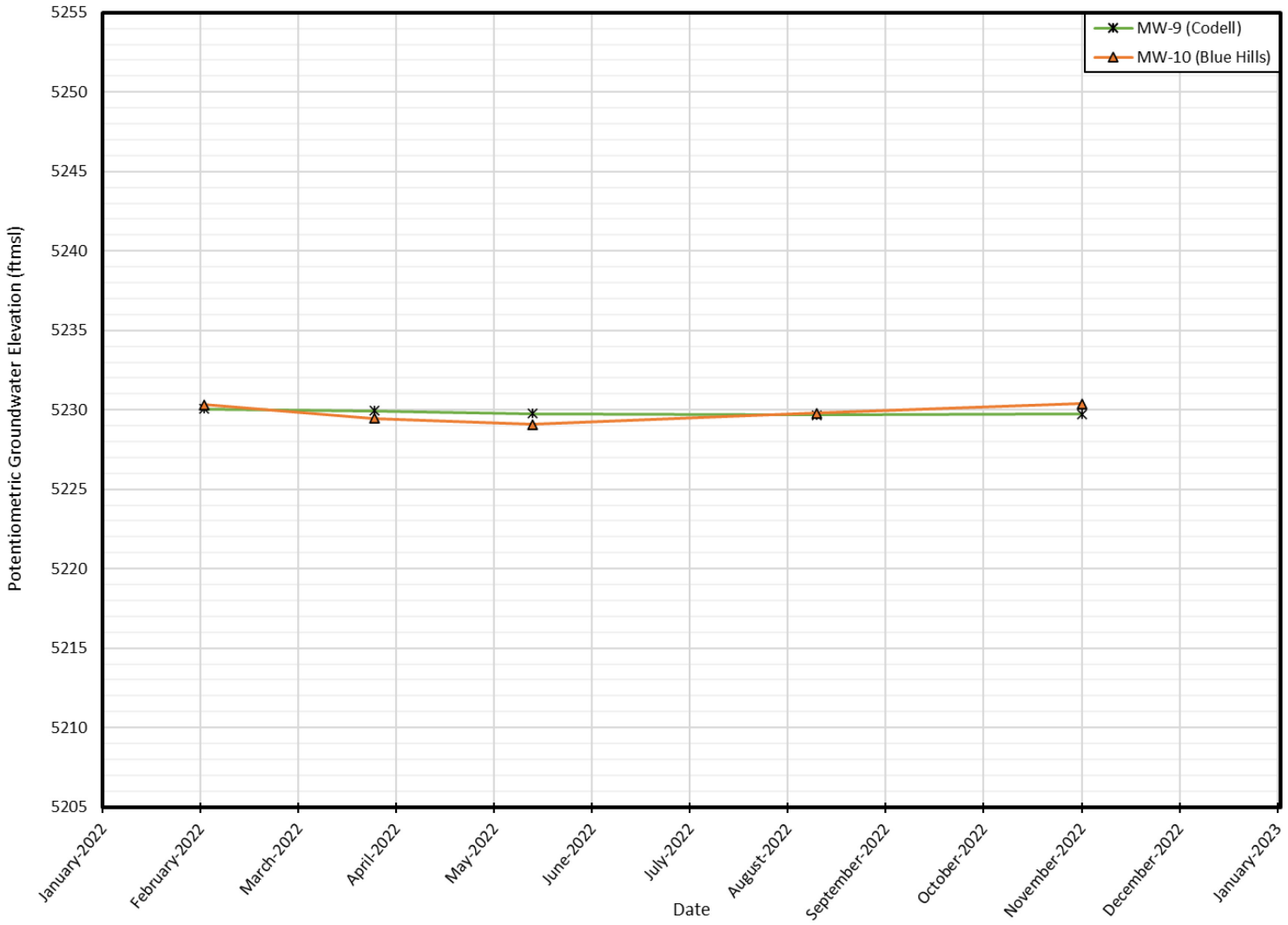


Figure 11. GCC Rio Grande Pueblo Plant MW-11 & MW-12 Groundwater Hydrograph – Full Period of Record 2022.

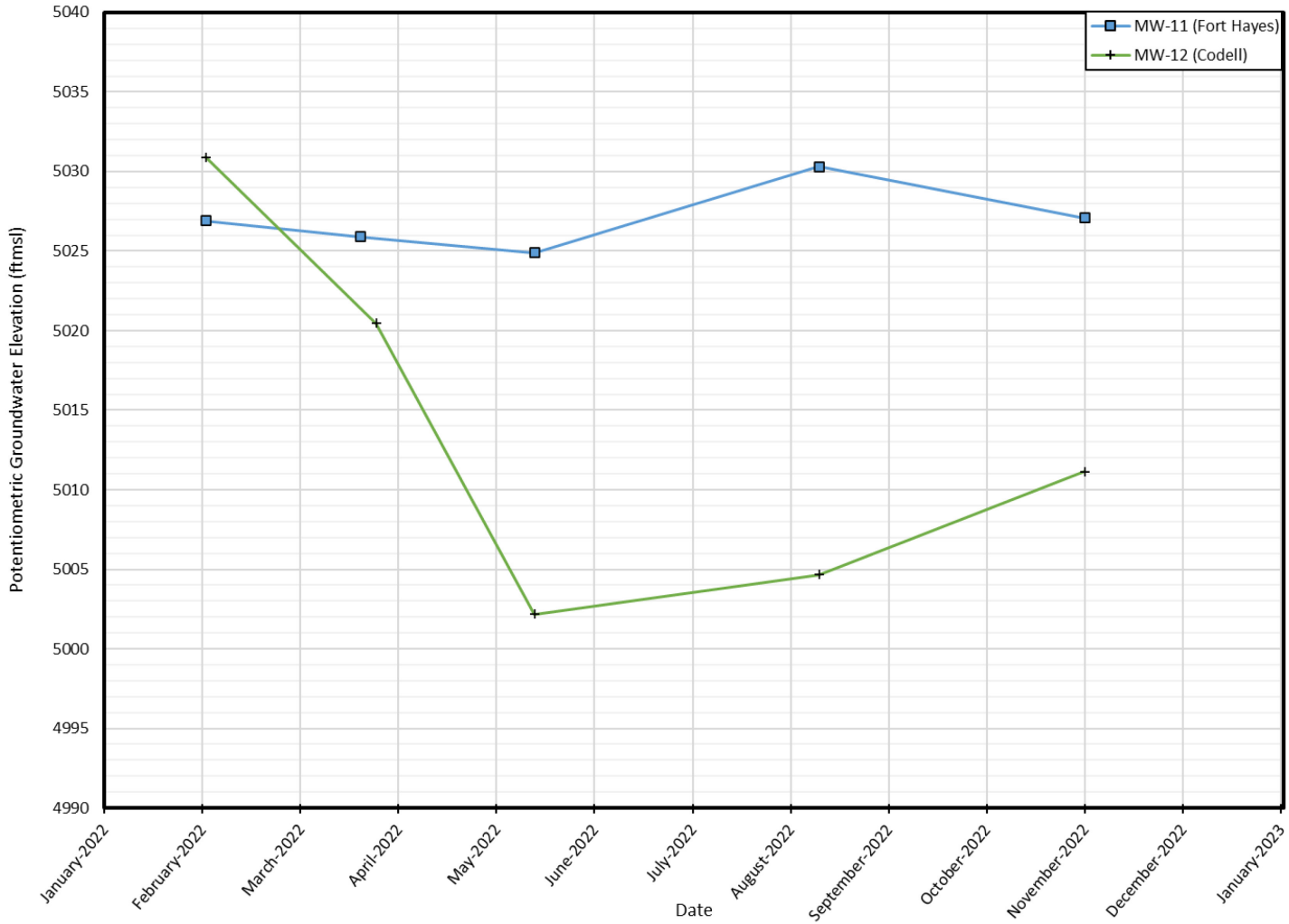


Figure 12. GCC Rio Grande Pueblo Plant MW-13 & MW-14 Groundwater Hydrograph – Full Period of Record 2022.

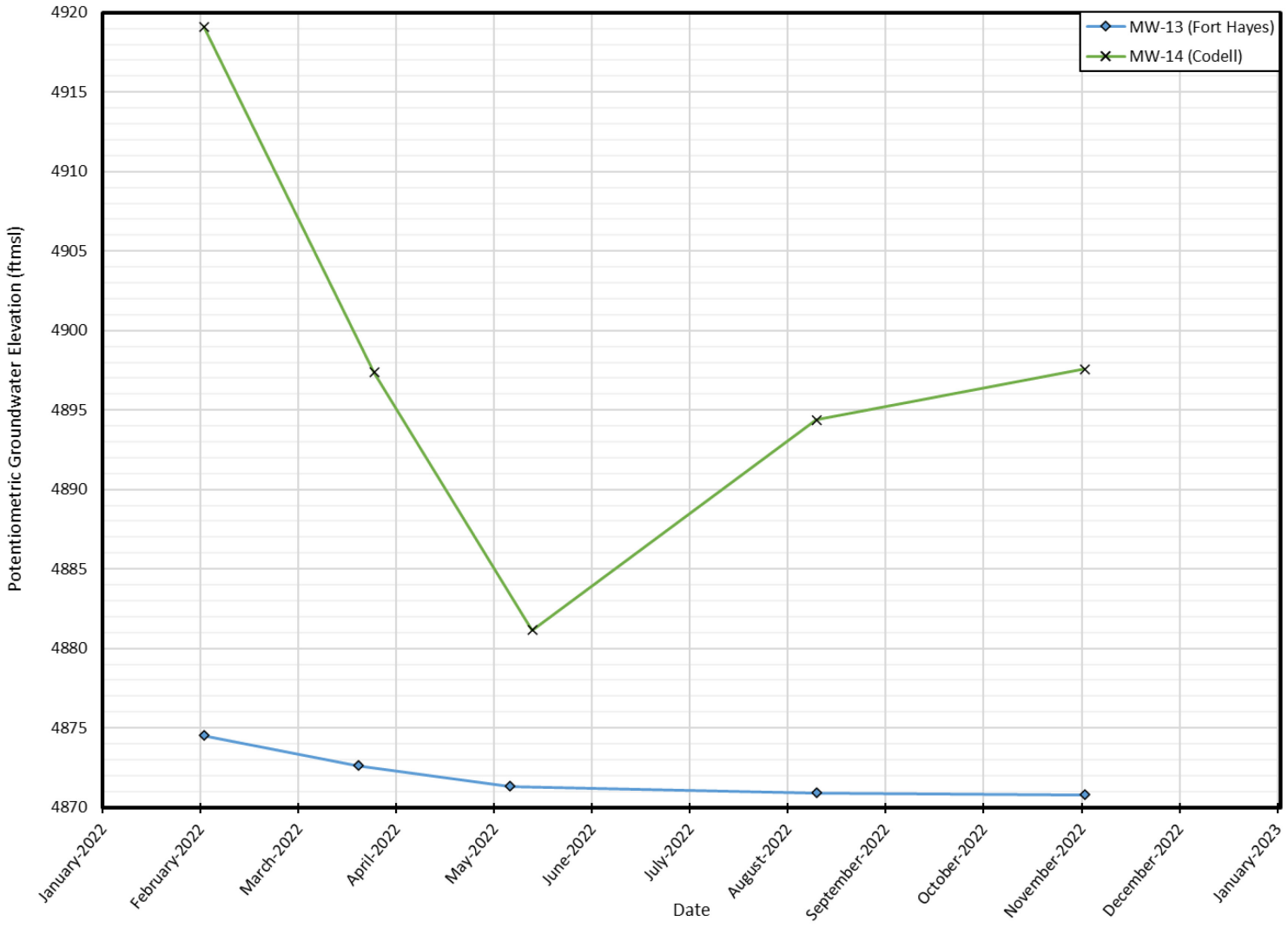
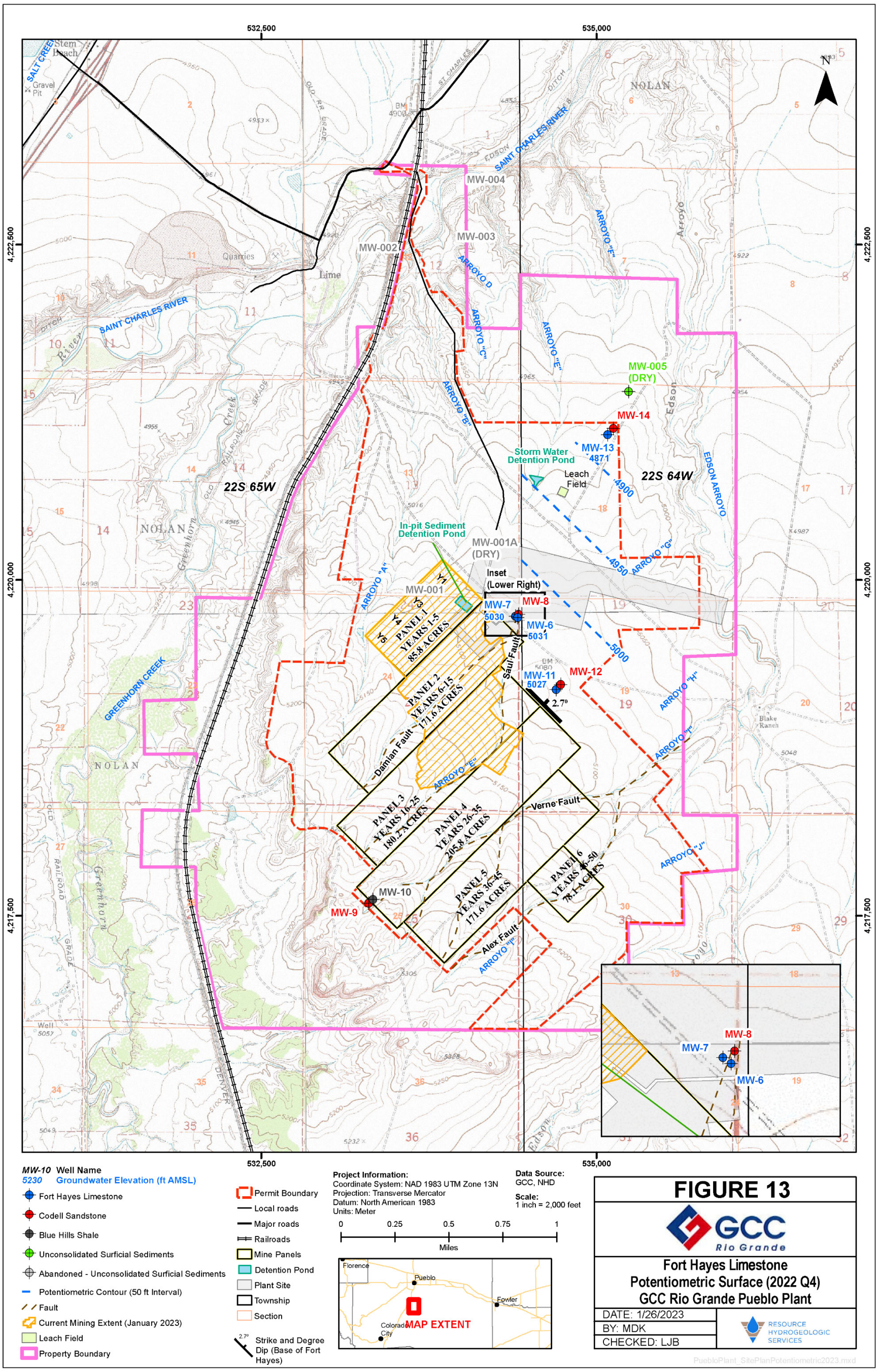


Figure 13. GCC Rio Grande Pueblo Plant Fort Hays 2022 Groundwater Potentiometric Elevation Map.



MW-10 Well Name
5230 Groundwater Elevation (ft AMSL)

- Fort Hayes Limestone
- Codell Sandstone
- Blue Hills Shale
- Unconsolidated Surficial Sediments
- Abandoned - Unconsolidated Surficial Sediments
- Potentiometric Contour (50 ft Interval)
- Fault
- Current Mining Extent (January 2023)
- Leach Field
- Property Boundary
- Permit Boundary
- Local roads
- Major roads
- Railroads
- Mine Panels
- Detention Pond
- Plant Site
- Township
- Section
- 2.7° Strike and Degree Dip (Base of Fort Hayes)

Project Information:
Coordinate System: NAD 1983 UTM Zone 13N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter

Data Source:
GCC, NHD

Scale:
1 inch = 2,000 feet

0 0.25 0.5 0.75 1
Miles

FIGURE 13

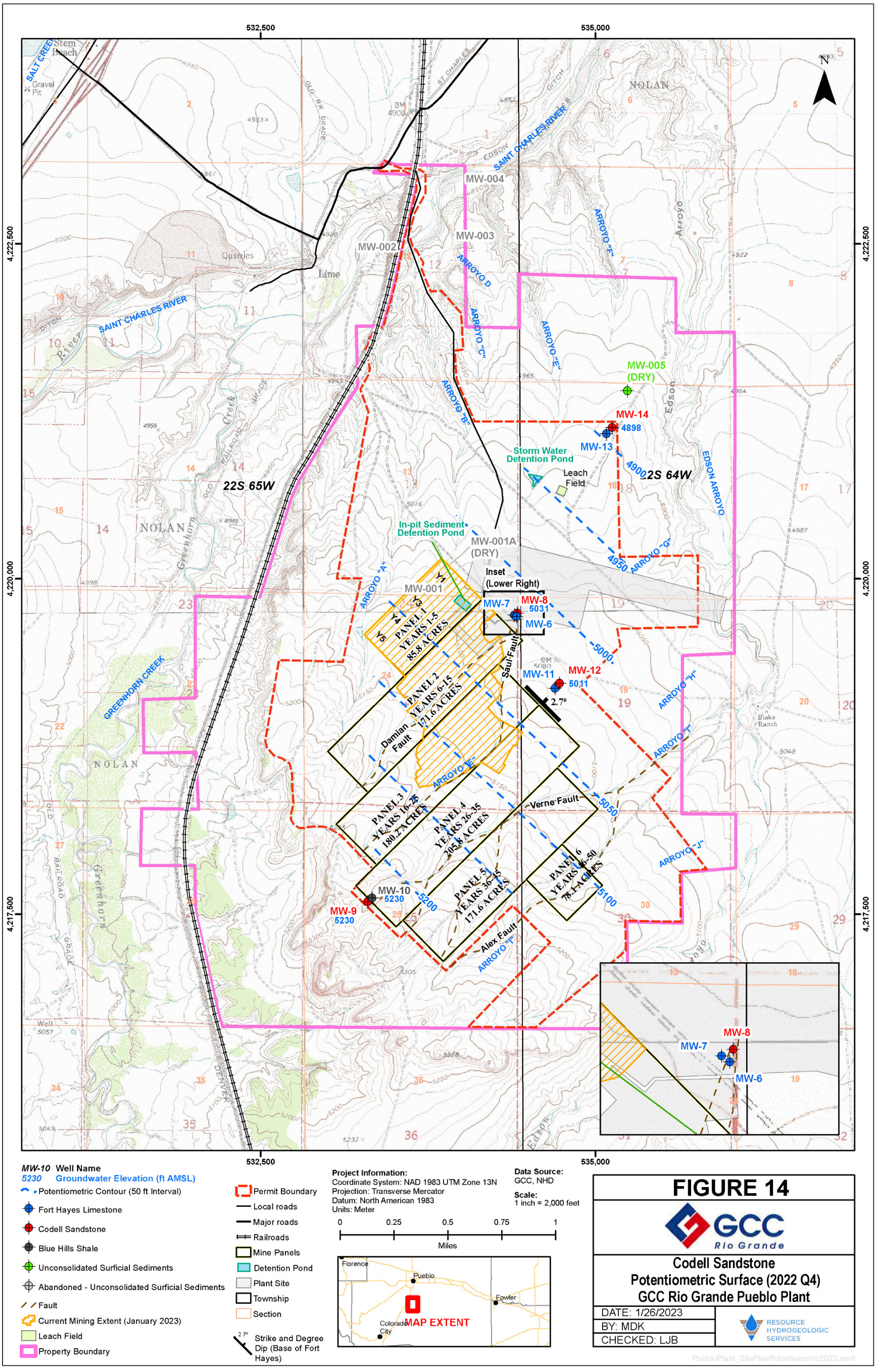
GCC Rio Grande

Fort Hayes Limestone
Potentiometric Surface (2022 Q4)
GCC Rio Grande Pueblo Plant

DATE: 1/26/2023	RESOURCE HYDROGEOLOGIC SERVICES
BY: MDK	
CHECKED: LJB	

PuebloPlant_SitePlanPotentiometric2023.mxd

Figure 14. GCC Rio Grande Pueblo Plant Codell 2022 Groundwater Potentiometric Elevation Map.



ATTACHMENT 1 - GCC Groundwater Sampling Field Records

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220324-1314032001-18239855735
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 24, 2022 12:17:43 PM MDT
Location:	

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-5
Water present to measure/sample?	No
Is the water present within 0.25 feet of the well TD?	No
Dry Well	Yes

Misc

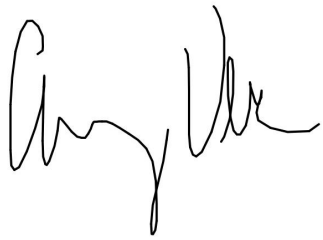
Site Photo

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	63

Date	Mar 24, 2022
Time	11:29:00 AM MDT

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220322-1314032001-18239476561
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 22, 2022 4:45:59 PM MDT
Location:	

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-6
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.52
Static Depth to Water (ft)	36.00
Depth to Water below ground Surface (ft)	33.48
Well Diameter (In)	2

Misc

Site Photo

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll
Calibration Date/Time:	Mar 11, 2022 12:00:00 PM MST
Calibration Parameters	Specific Conductivity (SC)

	pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Cloudy
Air Temperature (°F)	40
Date	Mar 22, 2022
Time	2:09:00 PM MDT

Sampling

Sample Temperature (°C)	14.00
Specific Conductivity (µS/cm)	5322.00
pH (S.U.)	7.23
Oxygen Reduction Potential (mV)	88.03
Dissolved Oxygen (mg/L)	4.07
Water level measured at sample time?	No water level measured - water level probe obstructed
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.25
Total Purged (gal)	11.00
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-6 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-6
Date	Mar 22, 2022
Time	2:09:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220330-1314032001-18240722843
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 30, 2022 1:21:40 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-7
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.66
Static Depth to Water (ft)	36.70
Well Total Depth (ft below top of casing)	56.1
Depth to Water below ground Surface (ft)	34.04
Well Diameter (In)	2

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll
Calibration Date/Time:	Mar 11, 2022 12:00:00 PM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Cloudy
Air Temperature (°F)	40
Date	Mar 30, 2022
Time	3:25:00 PM MDT

Sampling

Sample Temperature (°C)	15.07
Specific Conductivity (µS/cm)	5654.15
pH (S.U.)	6.95
Oxygen Reduction Potential (mV)	34.76
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	39.77
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.43
Total Purged (gal)	8.00
Are you sure? This purge value seems out of the expected purge requirement.	Yes
Geographic Sample Location	3372 Lime Rd, Pueblo, CO 81022, USA latitude: 38.12901660675719 altitude: 1533.4739 longitude: -104.60642785845498 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 2

Details

Method of Sample Collection	MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump

Lab Sample Name	MW-7
Date	Mar 30, 2022
Time	3:25:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

LAB SAMPLE 2 OF 2

Details

Method of Sample Collection	MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-2B
Date	Mar 22, 2022
Time	3:35:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Duplicate

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None

Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220329-1314032001-18240478635
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 28, 2022 3:20:05 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-8
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.16
Static Depth to Water (ft)	36.35
Depth to Water below ground Surface (ft)	34.19
Well Diameter (In)	2

Misc

Site Photo

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll
Calibration Date/Time:	Mar 23, 2022 12:00:00 PM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Cloudy
Air Temperature (°F)	46
Date	Mar 28, 2022
Time	9:52:00 AM MDT

Sampling

Sample Temperature (°C)	15.12
Specific Conductivity (µS/cm)	4545.32
pH (S.U.)	7.13
Oxygen Reduction Potential (mV)	30.67
Dissolved Oxygen (mg/L)	0.28
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	52.08
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.10
Total Purged (gal)	7.00
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-8
Date	Mar 28, 2022
Time	9:52:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None

Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220329-1314032001-18240478634
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 28, 2022 3:20:31 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-9
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.08
Static Depth to Water (ft)	26.16
Depth to Water below ground Surface (ft)	24.08
Well Diameter (In)	2

Misc

Site Photo

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll
Calibration Date/Time:	Mar 23, 2022 12:00:00 PM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Cloudy
Air Temperature (°F)	56
Date	Mar 28, 2022
Time	11:26:00 AM MDT

Sampling

Sample Temperature (°C)	15.01
Specific Conductivity (µS/cm)	4833.54
pH (S.U.)	6.55
Oxygen Reduction Potential (mV)	-7.18
Dissolved Oxygen (mg/L)	3.01
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	26.12
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.25
Total Purged (gal)	3.00
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-9 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-9
Date	Mar 28, 2022
Time	11:26:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None

Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220329-1314032001-18240478633
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 28, 2022 3:20:27 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-10
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.24
Static Depth to Water (ft)	26.35
Depth to Water below ground Surface (ft)	24.11
Well Diameter (In)	2

Misc

Site Photo

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll
Calibration Date/Time:	Mar 23, 2022 12:00:00 PM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Cloudy
Air Temperature (°F)	56
Date	Mar 28, 2022
Time	11:02:00 AM MDT

Sampling

Sample Temperature (°C)	15.06
Specific Conductivity (µS/cm)	5723.64
pH (S.U.)	7.43
Oxygen Reduction Potential (mV)	-196.24
Dissolved Oxygen (mg/L)	0.05
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	61.62
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.25
Total Purged (gal)	13.00
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-10 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-10
Date	Mar 28, 2022
Time	11:02:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None

Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220323-1314032001-18239702315
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 23, 2022 5:01:51 PM MDT
Location:	

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-11
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.18
Static Depth to Water (ft)	58.41
Depth to Water below ground Surface (ft)	56.23
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll
Calibration Date/Time:	Mar 11, 2022 12:00:00 PM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	46
Date	Mar 23, 2022
Time	10:10:00 AM MDT

Sampling

Sample Temperature (°C)	15.47
Specific Conductivity (µS/cm)	2265.14
pH (S.U.)	7.39
Oxygen Reduction Potential (mV)	-264.42
Are you sure? This value seems very unlikely based on past data?	Yes
ORP - Out of Range	Suspect conditions not observed before but I think the parameter value is accurate
Dissolved Oxygen (mg/L)	0.04
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	68.80

Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.40
Total Purged (gal)	6.50
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-11 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-11
Date	Mar 23, 2022
Time	10:10:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500

Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220329-1314032001-18240478637
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 28, 2022 3:20:17 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-12
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.29
Static Depth to Water (ft)	63.48
Depth to Water below ground Surface (ft)	61.19
Well Diameter (In)	2

Misc

Site Photo

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll
Calibration Date/Time:	Mar 23, 2022 12:00:00 PM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	46
Date	Mar 28, 2022
Time	10:23:00 AM MDT

Sampling

Sample Temperature (°C)	15.36
Specific Conductivity (µS/cm)	2896.34
pH (S.U.)	8.19
Oxygen Reduction Potential (mV)	20.10
Dissolved Oxygen (mg/L)	1.58
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	84.57
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.10
Total Purged (gal)	7.50
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-12 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-12
Date	Mar 28, 2022
Time	10:23:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None

Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220323-1314032001-18239702311
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 23, 2022 5:01:39 PM MDT
Location:	

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-13
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.19
Static Depth to Water (ft)	117.48
Depth to Water below ground Surface (ft)	115.29
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll
Calibration Date/Time:	Mar 11, 2022 12:00:00 PM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	57
Date	Mar 23, 2022
Time	4:24:00 PM MDT

Sampling

Sample Temperature (°C)	16.85
Specific Conductivity (µS/cm)	3871.50
pH (S.U.)	8.23
Oxygen Reduction Potential (mV)	-237.06
Are you sure? This value seems very unlikely based on past data?	Yes
ORP - Out of Range	Suspect conditions not observed before but I think the parameter value is accurate
Dissolved Oxygen (mg/L)	0.06
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	143.00

Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.63
Total Purged (gal)	31.00
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-13 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-13
Date	Mar 23, 2022
Time	4:24:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500

Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220329-1314032001-18240478638
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Mar 28, 2022 3:19:54 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-14
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.11
Static Depth to Water (ft)	92.54
Depth to Water below ground Surface (ft)	90.43
Well Diameter (In)	2

Misc

Site Photo

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll
Calibration Date/Time:	Mar 23, 2022 12:00:00 PM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Cloudy
Air Temperature (°F)	73
Date	Mar 28, 2022
Time	1:15:00 PM MDT

Sampling

Sample Temperature (°C)	17.47
Specific Conductivity (µS/cm)	3668.86
pH (S.U.)	8.07
Oxygen Reduction Potential (mV)	0.36
Dissolved Oxygen (mg/L)	3.07
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	199.32
Was flow rate measured?	Bailed Well, flow rate not measured.
Flow Rate (gpm)	0.00
Total Purged (gal)	35.00
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-14 – Dedicated QED SS Well Wizard 1300 low-flow bladder pump
Lab Sample Name	MW-14
Date	Mar 28, 2022
Time	1:15:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None

Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220510-1314032001-18246919263
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 10, 2022 3:13:55 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-5
Water present to measure/sample?	No
Is the water present within 0.25 feet of the well TD?	No
Dry Well	Yes

Misc

Site Photo

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	63

Date	May 10, 2022
Time	11:08:00 AM MDT

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220517-1314032001-18248095551
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 17, 2022 2:33:52 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-6
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.52
Static Depth to Water (ft)	36.94
Well Total Depth (ft below top of casing)	56.4
Depth to Water below ground Surface (ft)	34.42
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	May 6, 2022 9:00:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	89
Date	May 17, 2022
Time	11:33:00 AM MDT

Sampling

Sample Temperature (°C)	16.73
Specific Conductivity (µS/cm)	5726.45
pH (S.U.)	7.03
Oxygen Reduction Potential (mV)	-63.42
Dissolved Oxygen (mg/L)	2.50
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	55.13
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	1.00
Total Purged (gal)	9.00
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-6 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-6
Date	May 17, 2022
Time	11:33:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220511-1314032001-18247094202
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 11, 2022 1:47:58 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-7
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.66
Static Depth to Water (ft)	37.61
Well Total Depth (ft below top of casing)	56.1
Depth to Water below ground Surface (ft)	34.95
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	May 6, 2022 9:00:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	70
Date	May 10, 2022
Time	12:38:00 PM MDT

Sampling

Sample Temperature (°C)	15.21
Specific Conductivity (µS/cm)	5593.49
pH (S.U.)	6.86
Oxygen Reduction Potential (mV)	20.14
Dissolved Oxygen (mg/L)	0.07
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	41.69
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	1.00
Total Purged (gal)	10.50
Geographic Sample Location	3372 Lime Rd, Pueblo, CO 81022, USA

	latitude: 38.1290100497482 altitude: 1534.3595 longitude: -104.60643201937226 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 2

Details

Method of Sample Collection	MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-7
Date	May 10, 2022
Time	12:38:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

LAB SAMPLE 2 OF 2

Details

Method of Sample Collection	MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-2B
Date	May 10, 2022
Time	12:00:00 PM MDT

Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Duplicate

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220517-1314032001-18248095524
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 17, 2022 2:33:41 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-8
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.16
Static Depth to Water (ft)	37.93
Well Total Depth (ft below top of casing)	65.65
Depth to Water below ground Surface (ft)	35.77
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	May 6, 2022 9:00:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	89
Date	May 17, 2022
Time	11:50:00 AM MDT

Sampling

Sample Temperature (°C)	17.96
Specific Conductivity (µS/cm)	5556.02
pH (S.U.)	7.12
Oxygen Reduction Potential (mV)	-32.69
Dissolved Oxygen (mg/L)	0.27
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	48.98
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.75
Total Purged (gal)	3.50
Geographic Sample Location	3372 Lime Rd, Pueblo, CO 81022, USA

	latitude: 38.12788543742728 altitude: 1536.94 longitude: -104.60578155451681 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-8
Date	May 17, 2022
Time	11:50:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220517-1314032001-18248095609
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 17, 2022 2:34:39 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-9
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.08
Static Depth to Water (ft)	26.32
Well Total Depth (ft below top of casing)	42.23
Depth to Water below ground Surface (ft)	24.24
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	May 6, 2022 9:00:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	82
Date	May 17, 2022
Time	10:32:00 AM MDT

Sampling

Sample Temperature (°C)	16.92
Specific Conductivity (µS/cm)	5486.09
pH (S.U.)	6.59
Oxygen Reduction Potential (mV)	66.98
Dissolved Oxygen (mg/L)	1.26
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	29.11
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	1.40
Total Purged (gal)	5.00
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-9 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-9
Date	May 17, 2022
Time	10:32:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220517-1314032001-18248095591
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 17, 2022 2:34:27 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-10
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.24
Static Depth to Water (ft)	26.73
Well Total Depth (ft below top of casing)	82.55
Depth to Water below ground Surface (ft)	24.49
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	May 6, 2022 9:00:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	82
Date	May 17, 2022
Time	10:18:00 AM MDT

Sampling

Sample Temperature (°C)	18.03
Specific Conductivity (µS/cm)	6204.61
pH (S.U.)	7.50
Oxygen Reduction Potential (mV)	-137.17
Dissolved Oxygen (mg/L)	0.20
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	61.95
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.75
Total Purged (gal)	12.00
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-10 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-10
Date	May 17, 2022
Time	10:18:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220517-1314032001-18248095560
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 17, 2022 2:34:02 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-11
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.18
Static Depth to Water (ft)	59.41
Well Total Depth (ft below top of casing)	72.68
Depth to Water below ground Surface (ft)	57.23
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	May 6, 2022 9:00:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	82
Date	May 17, 2022
Time	11:12:00 AM MDT

Sampling

Sample Temperature (°C)	17.24
Specific Conductivity (µS/cm)	2681.16
pH (S.U.)	7.39
Oxygen Reduction Potential (mV)	-285.59
Dissolved Oxygen (mg/L)	0.26
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	61.29
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.20
Total Purged (gal)	5.75
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-11 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-11
Date	May 17, 2022
Time	11:12:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220517-1314032001-18248095575
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 17, 2022 2:34:15 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-12
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.29
Static Depth to Water (ft)	81.76
Well Total Depth (ft below top of casing)	88.8
Depth to Water below ground Surface (ft)	79.47
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	May 6, 2022 9:00:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	82
Date	May 17, 2022
Time	11:01:00 AM MDT

Sampling

Sample Temperature (°C)	17.28
Specific Conductivity (µS/cm)	3719.98
pH (S.U.)	8.04
Oxygen Reduction Potential (mV)	-0.98
Dissolved Oxygen (mg/L)	0.48
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	85.90
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.20
Total Purged (gal)	1.50
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-12 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-12
Date	May 17, 2022
Time	11:01:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220510-1314032001-18246919265
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 10, 2022 3:17:07 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-13
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.19
Static Depth to Water (ft)	118.78
Well Total Depth (ft below top of casing)	177.88
Depth to Water below ground Surface (ft)	116.59
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	May 6, 2022 9:00:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

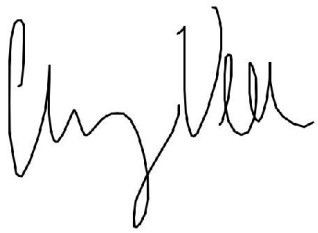
Weather	Sunny
Air Temperature (°F)	64
Date	May 10, 2022
Time	11:37:00 AM MDT

Sampling

Sample Temperature (°C)	17.52
Specific Conductivity (µS/cm)	3190.25
pH (S.U.)	8.38
Oxygen Reduction Potential (mV)	-258.33
Dissolved Oxygen (mg/L)	0.01
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	139.14
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.40
Total Purged (gal)	30.00
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-13 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-13
Date	May 10, 2022
Time	11:37:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220517-1314032001-18248095617
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	May 17, 2022 2:34:46 PM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-14
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.11
Static Depth to Water (ft)	108.77
Well Total Depth (ft below top of casing)	207.83
Depth to Water below ground Surface (ft)	106.66
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	May 6, 2022 9:00:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

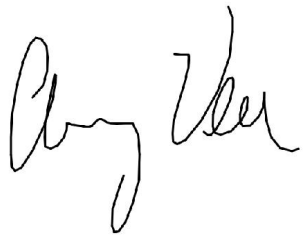
Weather	Sunny
Air Temperature (°F)	75
Date	May 17, 2022
Time	9:32:00 AM MDT

Sampling

Sample Temperature (°C)	17.21
Specific Conductivity (µS/cm)	6740.91
pH (S.U.)	7.68
Oxygen Reduction Potential (mV)	159.98
Dissolved Oxygen (mg/L)	0.26
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	197.53
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.01
Total Purged (gal)	20.00
Geographic Sample Location	596G+FG Stem Beach, CO, USA

	latitude: 38.16118927018623 altitude: 1494.14 longitude: -104.62367706259597 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-14 – Dedicated QED SS Well Wizard T1300 low-flow bladder pump
Lab Sample Name	MW-14
Date	May 17, 2022
Time	9:32:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1

Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220823-1314032001-18263957487
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Aug 23, 2022 11:43:27 AM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-6
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.52
Static Depth to Water (ft)	16.78
Well Total Depth (ft below top of casing)	56.4
Depth to Water below ground Surface (ft)	14.26
Well Diameter (In)	2

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Aug 2, 2022 8:30:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

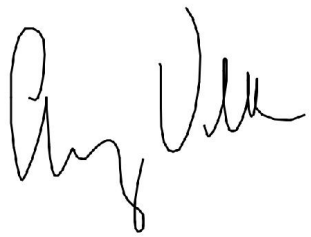
SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	88
Date	Aug 15, 2022
Time	11:51:00 AM MDT

Sampling

Sample Temperature (°C)	20.47
Are you sure? This value seems very unlikely based on past data.	Yes
Sample Temperature - Out of Range	Suspect conditions not observed before but I think the parameter value is accurate
Specific Conductivity (µS/cm)	5404.19
pH (S.U.)	7.02
Oxygen Reduction Potential (mV)	40.82
Dissolved Oxygen (mg/L)	1.98
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	17.36
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.08
Total Purged (gal)	0.30
Geographic Sample Location	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-6 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-6
Date	Aug 15, 2022
Time	11:51:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes

Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

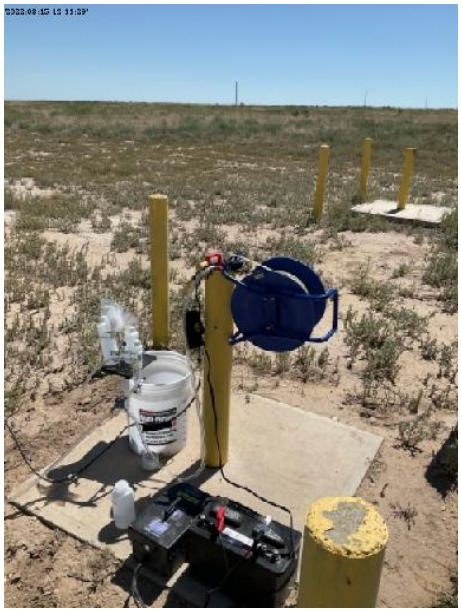
Reference Number:	GCC_RGPP-20220816-1314032001-18262715601
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Aug 16, 2022 8:33:43 AM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-7
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.66
Static Depth to Water (ft)	29.34
Well Total Depth (ft below top of casing)	56.1
Depth to Water below ground Surface (ft)	26.68
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Aug 2, 2022 8:30:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

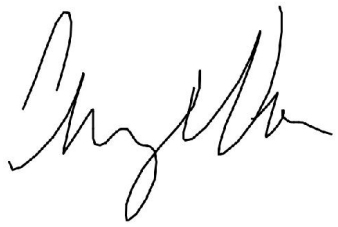
Weather	Sunny
Air Temperature (°F)	88
Date	Aug 15, 2022
Time	12:21:00 PM MDT

Sampling

Sample Temperature (°C)	19.96
Specific Conductivity (µS/cm)	5904.99
pH (S.U.)	6.99
Oxygen Reduction Potential (mV)	35.88
Dissolved Oxygen (mg/L)	1.86
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	29.69
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.07
Total Purged (gal)	0.30
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-7
Date	Aug 15, 2022
Time	12:21:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220816-1314032001-18262715630
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Aug 16, 2022 8:35:01 AM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-8
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.16
Static Depth to Water (ft)	30.25
Well Total Depth (ft below top of casing)	65.65
Depth to Water below ground Surface (ft)	28.09
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Aug 2, 2022 8:30:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	90
Date	Aug 15, 2022
Time	12:41:00 PM MDT

Sampling

Sample Temperature (°C)	18.81
Specific Conductivity (µS/cm)	5325.16
pH (S.U.)	7.18
Oxygen Reduction Potential (mV)	-67.40
Dissolved Oxygen (mg/L)	1.24
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	36.05
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.16
Total Purged (gal)	0.40
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 2

Details

Method of Sample Collection	MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-8
Date	Aug 15, 2022
Time	12:41:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

LAB SAMPLE 2 OF 2

Details

Method of Sample Collection	MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-2B
Date	Aug 15, 2022
Time	12:00:00 PM MDT

Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Duplicate

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220816-1314032001-18262715930
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Aug 16, 2022 8:43:26 AM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-9
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.08
Static Depth to Water (ft)	26.42
Well Total Depth (ft below top of casing)	42.23
Depth to Water below ground Surface (ft)	24.34
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Aug 2, 2022 8:30:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	92
Date	Aug 15, 2022
Time	3:57:00 PM MDT

Sampling

Sample Temperature (°C)	18.94
Specific Conductivity (µS/cm)	4998.30
pH (S.U.)	6.86
Oxygen Reduction Potential (mV)	-41.70
Dissolved Oxygen (mg/L)	0.68
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	27.72
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.09
Total Purged (gal)	0.20

Geographic Sample Location	3372 Lime Rd, North Avondale, CO 81022, USA latitude: 38.129265612357706 altitude: 1534.572 longitude: -104.6064037193121 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-9 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-9
Date	Aug 15, 2022
Time	3:57:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None

Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220816-1314032001-18262715788
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Aug 16, 2022 8:40:02 AM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-10
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.24
Static Depth to Water (ft)	26.04
Well Total Depth (ft below top of casing)	82.55
Depth to Water below ground Surface (ft)	23.80
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Aug 2, 2022 8:30:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

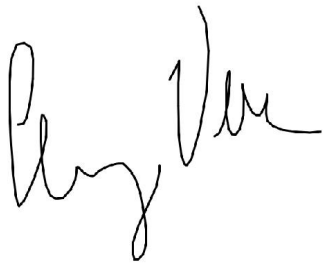
Weather	Sunny
Air Temperature (°F)	92
Date	Aug 15, 2022
Time	3:23:00 PM MDT

Sampling

Sample Temperature (°C)	18.81
Specific Conductivity (µS/cm)	5812.67
pH (S.U.)	7.56
Oxygen Reduction Potential (mV)	-143.91
Dissolved Oxygen (mg/L)	0.41
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	30.90
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.13
Total Purged (gal)	0.50
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-10 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-10
Date	Aug 15, 2022
Time	3:23:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220816-1314032001-18262715665
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Aug 16, 2022 8:36:56 AM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-11
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.18
Static Depth to Water (ft)	54.00
Well Total Depth (ft below top of casing)	72.68
Depth to Water below ground Surface (ft)	51.82
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Aug 2, 2022 8:30:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	92
Date	Aug 15, 2022
Time	2:33:00 PM MDT

Sampling

Sample Temperature (°C)	18.75
Specific Conductivity (µS/cm)	2619.29
pH (S.U.)	7.37
Oxygen Reduction Potential (mV)	-298.75
Dissolved Oxygen (mg/L)	0.10
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	55.86
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.09
Total Purged (gal)	0.40
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-11 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-11
Date	Aug 15, 2022
Time	2:33:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220816-1314032001-18262719080
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Aug 16, 2022 8:46:00 AM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-12
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.29
Static Depth to Water (ft)	79.28
Well Total Depth (ft below top of casing)	88.8
Depth to Water below ground Surface (ft)	76.99
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Aug 2, 2022 8:30:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

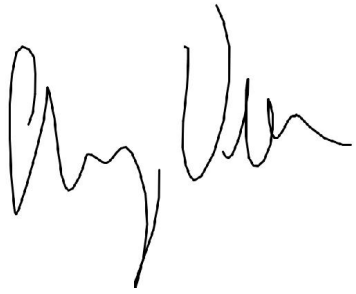
Weather	Sunny
Air Temperature (°F)	92
Date	Aug 15, 2022
Time	2:15:00 PM MDT

Sampling

Sample Temperature (°C)	18.00
Specific Conductivity (µS/cm)	4218.59
pH (S.U.)	7.69
Oxygen Reduction Potential (mV)	3.92
Dissolved Oxygen (mg/L)	0.07
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	81.63
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.20
Total Purged (gal)	0.50

Geographic Sample Location	3372 Lime Rd, North Avondale, CO 81022, USA latitude: 38.12928771446313 altitude: 1534.5697 longitude: -104.60633085537432 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-12 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-12
Date	Aug 15, 2022
Time	2:15:00 PM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None

Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220816-1314032001-18262715534
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Aug 16, 2022 8:31:05 AM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-13
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	Yes
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.19
Static Depth to Water (ft)	119.21
Well Total Depth (ft below top of casing)	177.88
Depth to Water below ground Surface (ft)	117.02
Well Diameter (In)	2

Misc

Site Photo

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Aug 2, 2022 8:30:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	79
Date	Aug 15, 2022
Time	10:57:00 AM MDT

Sampling

Sample Temperature (°C)	19.05
Specific Conductivity (µS/cm)	4115.49
pH (S.U.)	7.89
Oxygen Reduction Potential (mV)	-134.56
Dissolved Oxygen (mg/L)	0.72
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	119.16
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.08
Total Purged (gal)	1.00

Geographic Sample Location	3372 Lime Rd, North Avondale, CO 81022, USA latitude: 38.129596597869266 altitude: 1537.2799 longitude: -104.60718527626986 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-13 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-13
Date	Aug 15, 2022
Time	10:57:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None

Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20220816-1314032001-18262715569
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Aug 16, 2022 8:32:25 AM MDT

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-14
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	Yes
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.11
Static Depth to Water (ft)	95.53
Well Total Depth (ft below top of casing)	207.83
Depth to Water below ground Surface (ft)	93.42
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Aug 2, 2022 8:30:00 AM MDT
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Sunny
Air Temperature (°F)	75
Date	Aug 15, 2022
Time	10:03:00 AM MDT

Sampling

Sample Temperature (°C)	18.19
Specific Conductivity (µS/cm)	5626.25
pH (S.U.)	7.66
Oxygen Reduction Potential (mV)	-26.67
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	103.11
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.07
Total Purged (gal)	1.20
Geographic Sample Location	19 Pasadena Dr, Pueblo, CO 81005, USA

	latitude: 38.211265178037316 altitude: 1533.0509 longitude: -104.66807324235701 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-14 – Dedicated QED SS Well Wizard T1300 low-flow bladder pump
Lab Sample Name	MW-14
Date	Aug 15, 2022
Time	10:03:00 AM MDT
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503084
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:46:34 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-5
Water present to measure/sample?	No
Is the water present within 0.25 feet of the well TD?	No
Dry Well	Yes

Misc

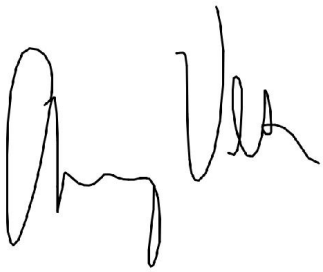
Site Photo

SAMPLING DETAILS

Weather	Partly Sunny
Air Temperature (°F)	45

Date	Nov 8, 2022
Time	9:18:00 AM MST

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503041
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:43:28 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-6
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.52
Static Depth to Water (ft)	33.62
Well Total Depth (ft below top of casing)	56.4
Depth to Water below ground Surface (ft)	31.10
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Nov 7, 2022 9:15:00 AM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Partly Sunny
Air Temperature (°F)	42
Date	Nov 7, 2022
Time	10:42:00 AM MST

Sampling

Sample Temperature (°C)	15.67
Specific Conductivity (µS/cm)	5310.75
pH (S.U.)	6.92
Oxygen Reduction Potential (mV)	46.63
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	34.88
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.09
Total Purged (gal)	0.60
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-6 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-6
Date	Nov 7, 2022
Time	10:42:00 AM MST
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503060
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:45:05 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-7
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.66
Static Depth to Water (ft)	33.53
Well Total Depth (ft below top of casing)	56.1
Depth to Water below ground Surface (ft)	30.87
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Nov 7, 2022 9:15:00 AM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Partly Sunny
Air Temperature (°F)	51
Date	Nov 7, 2022
Time	1:44:00 PM MST

Sampling

Sample Temperature (°C)	15.17
Specific Conductivity (µS/cm)	4727.11
pH (S.U.)	7.08
Oxygen Reduction Potential (mV)	20.89
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	33.56
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.02
Total Purged (gal)	0.30
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-7 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-7
Date	Nov 7, 2022
Time	1:44:00 PM MST
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503050
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:44:10 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-8
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.16
Static Depth to Water (ft)	32.00
Well Total Depth (ft below top of casing)	65.65
Depth to Water below ground Surface (ft)	29.84
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Nov 7, 2022 9:15:00 AM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Partly Sunny
Air Temperature (°F)	50
Date	Nov 7, 2022
Time	1:19:00 PM MST

Sampling

Sample Temperature (°C)	16.11
Specific Conductivity (µS/cm)	5235.79
pH (S.U.)	7.15
Oxygen Reduction Potential (mV)	64.38
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	40.18
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.02
Total Purged (gal)	0.40
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 2

Details

Method of Sample Collection	MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-8
Date	Nov 7, 2022
Time	1:19:00 PM MST
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

LAB SAMPLE 2 OF 2

Details

Method of Sample Collection	MW-8 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-8
Date	Nov 7, 2022
Time	12:00:00 PM MST

Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Duplicate

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503183
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:54:54 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-9
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.08
Static Depth to Water (ft)	26.37
Well Total Depth (ft below top of casing)	42.23
Depth to Water below ground Surface (ft)	24.29
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Nov 7, 2022 9:16:00 AM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

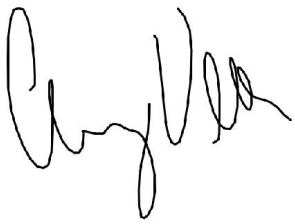
Weather	Partly Sunny
Air Temperature (°F)	53
Date	Nov 7, 2022
Time	3:25:00 PM MST

Sampling

Sample Temperature (°C)	16.24
Specific Conductivity (µS/cm)	4959.36
pH (S.U.)	6.81
Oxygen Reduction Potential (mV)	-206.32
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	27.87
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.03
Total Purged (gal)	0.20
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-9 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-9
Date	Nov 7, 2022
Time	3:25:00 PM MST
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503188
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:55:15 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-10
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.24
Static Depth to Water (ft)	25.45
Well Total Depth (ft below top of casing)	82.55
Depth to Water below ground Surface (ft)	23.21
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Nov 7, 2022 9:15:00 AM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

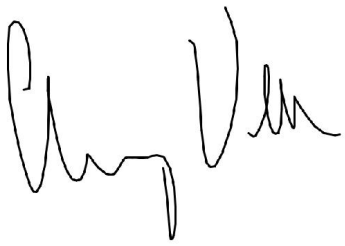
Weather	Partly Sunny
Air Temperature (°F)	53
Date	Nov 7, 2022
Time	3:08:00 PM MST

Sampling

Sample Temperature (°C)	15.26
Specific Conductivity (µS/cm)	5697.99
pH (S.U.)	7.57
Oxygen Reduction Potential (mV)	-242.44
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	30.96
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.04
Total Purged (gal)	0.50
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-10 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-10
Date	Nov 7, 2022
Time	3:08:00 PM MST
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503079
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:46:10 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-11
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.18
Static Depth to Water (ft)	57.23
Well Total Depth (ft below top of casing)	72.68
Depth to Water below ground Surface (ft)	55.05
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Nov 7, 2022 9:15:00 AM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

Weather	Partly Sunny
Air Temperature (°F)	53
Date	Nov 7, 2022
Time	2:27:00 PM MST

Sampling

Sample Temperature (°C)	15.20
Specific Conductivity (µS/cm)	2573.18
pH (S.U.)	7.35
Oxygen Reduction Potential (mV)	-254.48
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	59.02
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.02
Total Purged (gal)	0.40
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-11 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-11
Date	Nov 7, 2022
Time	2:27:00 PM MST
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503074
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:45:45 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-12
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.29
Static Depth to Water (ft)	72.80
Well Total Depth (ft below top of casing)	88.8
Depth to Water below ground Surface (ft)	70.51
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Nov 7, 2022 9:15:00 AM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

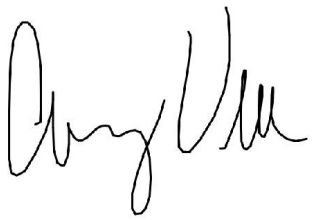
Weather	Partly Sunny
Air Temperature (°F)	53
Date	Nov 7, 2022
Time	2:09:00 PM MST

Sampling

Sample Temperature (°C)	15.21
Specific Conductivity (µS/cm)	4398.51
pH (S.U.)	7.67
Oxygen Reduction Potential (mV)	51.22
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	77.15
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.02
Total Purged (gal)	0.50
Geographic Sample Location	

	latitude: altitude: longitude: [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-12 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-12
Date	Nov 7, 2022
Time	2:09:00 PM MST
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503177
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:54:31 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-13
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.19
Static Depth to Water (ft)	119.31
Well Total Depth (ft below top of casing)	177.88
Depth to Water below ground Surface (ft)	117.12
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Nov 7, 2022 9:15:00 AM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

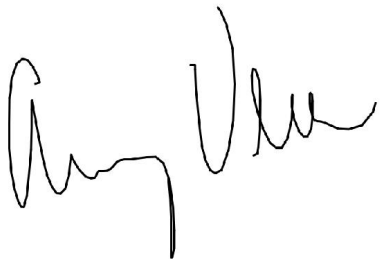
Weather	Partly Sunny
Air Temperature (°F)	56
Date	Nov 8, 2022
Time	10:57:00 AM MST

Sampling

Sample Temperature (°C)	16.02
Specific Conductivity (µS/cm)	4251.08
pH (S.U.)	7.96
Oxygen Reduction Potential (mV)	-104.64
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	121.54
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.02
Total Purged (gal)	1.00
Geographic Sample Location	15 Pasadena Dr, Pueblo, CO 81005, USA

	latitude: 38.21134999632629 altitude: 1531.4004 longitude: -104.66881616436022 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-13 – Dedicated Proactive Environmental SS Sample Champ XL 12-volt low-flow submersible pump
Lab Sample Name	MW-13
Date	Nov 8, 2022
Time	10:57:00 AM MST
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly

Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

Wells - GCC Pueblo Compliance Water Sampling

GCC Pueblo Quarry and Cement Plant
(719) 647-6800
3372 Lime Road
Pueblo, CO 81004
www.gcc.com

Reference Number:	GCC_RGPP-20221108-1314032001-18276503134
Form Name:	Wells - GCC Pueblo Compliance Water Sampling
Submitter Name:	Amy Veek (amy.veek) | amy.veek
Submission Date:	Nov 8, 2022 1:50:49 PM MST

SITE INFORMATION

Location

Project Site	GCC Rio Grande Pueblo Plant
Sample ID	MW-14
Water present to measure/sample?	Yes
Is the water present within 0.25 feet of the well TD?	No
Wellhead Stick-Up from Ground Level Reference Point to Depth to Water Level Reference Point (ft)	2.11
Static Depth to Water (ft)	92.34
Well Total Depth (ft below top of casing)	207.83
Depth to Water below ground Surface (ft)	90.23
Well Diameter (In)	2

Misc

Site Photo	

Water Quality Meter

Water Quality Meter Make/Model/SN	In-Situ AquaTroll 400 SN 896017
Calibration Date/Time:	Nov 7, 2022 9:15:00 AM MST
Calibration Parameters	Specific Conductivity (SC) pH Oxygen Reduction Potential (ORP) Dissolved Oxygen (DO or RDO)
AquaTroll calibration log generated?	Yes

SAMPLING DETAILS

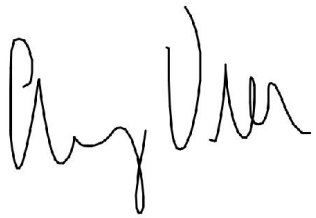
Weather	Partly Sunny
Air Temperature (°F)	45
Date	Nov 8, 2022
Time	10:09:00 AM MST

Sampling

Sample Temperature (°C)	15.48
Specific Conductivity (µS/cm)	6395.49
pH (S.U.)	7.59
Oxygen Reduction Potential (mV)	-31.29
Dissolved Oxygen (mg/L)	0.00
Water level measured at sample time?	Depth to Water (ft TOC) measured at Sample Time
Depth to Water (ft TOC)	102.79
Was flow rate measured?	Flow Rate was measured.
Flow Rate (gpm)	0.06
Total Purged (gal)	1.20
Geographic Sample Location	19 Pasadena Dr, Pueblo, CO 81005, USA

	latitude: 38.211419294192616 altitude: 1537.5 longitude: -104.6681784584847 [viewMap]
Sample(s) collected for laboratory analysis?	Yes

Sampler

Sampler Name	Amy Veek – GCC Pueblo Environmental Engineer
Sampler's Signature	

SAMPLE(S) COLLECTED FOR LABORATORY ANALYSIS

Sample Submittal Information

LAB SAMPLE 1 OF 1

Details

Method of Sample Collection	MW-14 – Dedicated QED SS Well Wizard T1300 low-flow bladder pump
Lab Sample Name	MW-14
Date	Nov 8, 2022
Time	10:09:00 AM MST
Lab Suite	GW-Compliance
Number of Bottles/Containers	3
Lab Sample Type	Normal

Sample Handling

SAMPLE HANDLING 1 OF 3

Bottle Details

ACZ Labs Bottle Sticker	None
Bottle Volume (mL)	500
Bottle Composition	Poly
Bottle Quantity	1

Field-Filtered to 0.45 µm (Yes/No)	No
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, no filtration

SAMPLE HANDLING 2 OF 3

Bottle Details

ACZ Labs Bottle Sticker	White
Bottle Volume (mL)	250
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Raw/None
Analysis	Wet Chemistry - no preservative, field-filtered

SAMPLE HANDLING 3 OF 3

Bottle Details

ACZ Labs Bottle Sticker	Green PC
Bottle Volume (mL)	125
Bottle Composition	Poly
Bottle Quantity	1
Field-Filtered to 0.45 µm (Yes/No)	Yes
Preservative (Type)	Nitric Acid
Analysis	Metals (dissolved including ICPMS) - nitric preserved, field-filtered

ATTACHMENT 2 - GCC Groundwater Sampling Analytical Lab Reports

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

April 12, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L72128

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 23, 2022. This project has been assigned to ACZ's project number, L72128. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L72128. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after April 12, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Bill Lane has reviewed and approved this report

GCC Rio Grande

April 12, 2022

Project ID: 105495
ACZ Project ID: L72128

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 3 groundwater samples from GCC Rio Grande on March 23, 2022. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L72128. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.
Qualifier: N1
Applies to: L72128-01/TOTAL DISSOLVED SOLIDS
L72128-02/TOTAL DISSOLVED SOLIDS
L72128-03/TOTAL DISSOLVED SOLIDS
See Case Narrative.
The time and temperature was not recorded when the workgroup came out of the 180'C oven on 3/28/22. It is believed to have been for at least one hour and the oven within range. All sample/QC obtained a passing constant weight. REDO of the sample at client's request to confirm.

GCC Rio Grande
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L72128-01***
Date Sampled: *03/22/22 14:09*
Date Received: *03/23/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	03/31/22 18:31	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	04/01/22 13:46	kja
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	03/31/22 18:31	jlw
Boron, dissolved	M200.7 ICP	5	0.213	B		mg/L	0.15	0.5	03/31/22 18:31	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	04/01/22 13:46	kja
Calcium, dissolved	M200.7 ICP	5	488			mg/L	0.5	2.5	03/31/22 18:31	jlw
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	03/31/22 18:31	jlw
Cobalt, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	03/31/22 18:31	jlw
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	03/31/22 18:31	jlw
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	03/31/22 18:31	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	04/01/22 13:46	kja
Lithium, dissolved	M200.7 ICP	5	0.434			mg/L	0.04	0.2	03/31/22 18:31	jlw
Magnesium, dissolved	M200.7 ICP	5	460			mg/L	1	5	03/31/22 18:31	jlw
Manganese, dissolved	M200.7 ICP	5	0.084	B		mg/L	0.05	0.25	03/31/22 18:31	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/28/22 12:23	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	03/31/22 18:31	jlw
Potassium, dissolved	M200.7 ICP	5	11.5			mg/L	1	5	03/31/22 18:31	jlw
Selenium, dissolved	M200.8 ICP-MS	5	0.0465			mg/L	0.0005	0.00125	04/01/22 13:46	kja
Sodium, dissolved	M200.7 ICP	5	362			mg/L	1	5	03/31/22 18:31	jlw
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	03/31/22 18:31	jlw
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	03/31/22 18:31	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	321			mg/L	2	20	03/28/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	03/28/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	03/28/22 0:00	jck
Total Alkalinity		1	321			mg/L	2	20	03/28/22 0:00	jck
Chloride	SM4500Cl-E	1	48.5		*	mg/L	0.5	2	04/04/22 11:39	syw
Fluoride	SM4500F-C	1	0.62			mg/L	0.15	0.35	04/01/22 19:58	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		8.01			mg/L	0.08	0.4	04/12/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	4	8.02			mg/L	0.08	0.4	03/23/22 22:56	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.011	B	*	mg/L	0.01	0.05	03/23/22 22:30	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5200		*	mg/L	40	80	03/24/22 13:41	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	125	3610		*	mg/L	125	625	04/04/22 22:32	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L72128-02***
Date Sampled: *03/22/22 15:25*
Date Received: *03/23/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	03/31/22 18:34	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	04/01/22 13:48	kja
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	03/31/22 18:34	jlw
Boron, dissolved	M200.7 ICP	5	0.389	B		mg/L	0.15	0.5	03/31/22 18:34	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	04/01/22 13:48	kja
Calcium, dissolved	M200.7 ICP	5	396			mg/L	0.5	2.5	03/31/22 18:34	jlw
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	03/31/22 18:34	jlw
Cobalt, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	03/31/22 18:34	jlw
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	03/31/22 18:34	jlw
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	03/31/22 18:34	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	04/01/22 13:48	kja
Lithium, dissolved	M200.7 ICP	5	0.549			mg/L	0.04	0.2	03/31/22 18:34	jlw
Magnesium, dissolved	M200.7 ICP	5	428			mg/L	1	5	03/31/22 18:34	jlw
Manganese, dissolved	M200.7 ICP	5	0.055	B		mg/L	0.05	0.25	03/31/22 18:34	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/28/22 12:24	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	03/31/22 18:34	jlw
Potassium, dissolved	M200.7 ICP	5	10.8			mg/L	1	5	03/31/22 18:34	jlw
Selenium, dissolved	M200.8 ICP-MS	5	0.0114			mg/L	0.0005	0.00125	04/01/22 13:48	kja
Sodium, dissolved	M200.7 ICP	5	671			mg/L	1	5	03/31/22 18:34	jlw
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	03/31/22 18:34	jlw
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	03/31/22 18:34	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	491			mg/L	2	20	03/28/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	03/28/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	03/28/22 0:00	jck
Total Alkalinity		1	491			mg/L	2	20	03/28/22 0:00	jck
Chloride	SM4500Cl-E	1	93.7		*	mg/L	0.5	2	04/04/22 11:39	syw
Fluoride	SM4500F-C	1	0.57			mg/L	0.15	0.35	04/01/22 20:06	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		1.22			mg/L	0.02	0.1	04/12/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	1.24			mg/L	0.02	0.1	03/23/22 22:32	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.020	B	*	mg/L	0.01	0.05	03/23/22 22:32	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5760		*	mg/L	40	80	03/24/22 13:44	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	125	3650		*	mg/L	125	625	04/04/22 22:32	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L72128-03***
Date Sampled: *03/22/22 15:35*
Date Received: *03/23/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	04/01/22 16:10	jlw
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	04/01/22 13:50	kja
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	04/01/22 16:10	jlw
Boron, dissolved	M200.7 ICP	5	0.346	B		mg/L	0.15	0.5	04/01/22 16:10	jlw
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	04/01/22 13:50	kja
Calcium, dissolved	M200.7 ICP	5	383			mg/L	0.5	2.5	04/01/22 16:10	jlw
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	04/01/22 16:10	jlw
Cobalt, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	04/04/22 13:40	jlw
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	04/01/22 16:10	jlw
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	04/04/22 13:40	jlw
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	04/01/22 13:50	kja
Lithium, dissolved	M200.7 ICP	5	0.520			mg/L	0.04	0.2	04/01/22 16:10	jlw
Magnesium, dissolved	M200.7 ICP	5	431			mg/L	1	5	04/04/22 13:40	jlw
Manganese, dissolved	M200.7 ICP	5	<0.05	U	*	mg/L	0.05	0.25	04/01/22 16:10	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/28/22 12:25	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	04/04/22 13:40	jlw
Potassium, dissolved	M200.7 ICP	5	10.5			mg/L	1	5	04/01/22 16:10	jlw
Selenium, dissolved	M200.8 ICP-MS	5	0.0119			mg/L	0.0005	0.00125	04/01/22 13:50	kja
Sodium, dissolved	M200.7 ICP	5	642			mg/L	1	5	04/01/22 16:10	jlw
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	04/01/22 16:10	jlw
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	04/04/22 13:40	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	492			mg/L	2	20	03/28/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	03/28/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	03/28/22 0:00	jck
Total Alkalinity		1	492			mg/L	2	20	03/28/22 0:00	jck
Chloride	SM4500Cl-E	1	93.9		*	mg/L	0.5	2	04/04/22 11:45	syw
Fluoride	SM4500F-C	1	0.56			mg/L	0.15	0.35	04/01/22 20:14	eep
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		1.18			mg/L	0.02	0.1	04/12/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	1.20			mg/L	0.02	0.1	03/23/22 22:33	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.018	B	*	mg/L	0.01	0.05	03/23/22 22:33	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5730		*	mg/L	40	80	03/24/22 13:46	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	125	3720		*	mg/L	125	625	04/04/22 22:32	mjj1

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539151													
WG539151PBW1	PBW	03/28/22 20:00				14.4	mg/L		-20	20			
WG539151LCSW3	LCSW	03/28/22 20:19	WC220328-1	820.0001		817.9	mg/L	100	90	110			
L72128-03DUP	DUP	03/28/22 22:02			492	507	mg/L				3	20	
WG539151LCSW6	LCSW	03/29/22 0:00	WC220328-1	820.0001		840.2	mg/L	102	90	110			
WG539151PBW2	PBW	03/29/22 0:06				5	mg/L		-20	20			
WG539151LCSW9	LCSW	03/29/22 3:47	WC220328-1	820.0001		841.4	mg/L	103	90	110			
WG539151PBW3	PBW	03/29/22 3:53				4.4	mg/L		-20	20			
WG539151LCSW12	LCSW	03/29/22 6:49	WC220328-1	820.0001		841.9	mg/L	103	90	110			
WG539151PBW4	PBW	03/29/22 6:55				5.7	mg/L		-20	20			
WG539151LCSW15	LCSW	03/29/22 9:54	WC220328-1	820.0001		842.2	mg/L	103	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		1.979	mg/L	99	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.15	0.15			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.2502		.249	mg/L	100	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	200.4102		199.1	mg/L	99	1	200			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	1.0008		1.017	mg/L	102	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		.979	mg/L	98	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.15	0.15			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		.983	mg/L	98	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.15	0.15			
L72128-02AS	AS	03/31/22 18:44	II220330-3	5.004	U	5.13	mg/L	103	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	5.004	U	5.1	mg/L	102	85	115	1	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.15	0.15			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	2		1.911	mg/L	96	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.15	0.15			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.2502		.218	mg/L	87	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	200.4102		193.5	mg/L	97	1	200			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	1.0008		.992	mg/L	99	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	1		.946	mg/L	95	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.15	0.15			
L66185-44AS	AS	04/01/22 15:54	II220330-3	1.0008	.38	1.358	mg/L	98	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	1		.938	mg/L	94	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.15	0.15			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	1.0008	.38	1.353	mg/L	97	85	115	0	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	1		.967	mg/L	97	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.15	0.15			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539465													
WG539465ICV	ICV	04/01/22 13:14	MS220125-1	.05		.05179	mg/L	104	90	110			
WG539465ICB	ICB	04/01/22 13:15				U	mg/L		-0.00044	0.00044			
WG539465LFB	LFB	04/01/22 13:17	MS220228-9	.05005		.05027	mg/L	100	85	115			
WG539465CCV1	CCV	04/01/22 13:32	MS220330-4	.1001		.10007	mg/L	100	90	110			
WG539465CCB1	CCB	04/01/22 13:33				U	mg/L		-0.0006	0.0006			
WG539465CCV2	CCV	04/01/22 13:53	MS220330-4	.1001		.10114	mg/L	101	90	110			
WG539465CCB2	CCB	04/01/22 13:55				U	mg/L		-0.0006	0.0006			
L72130-05AS	AS	04/01/22 14:04	MS220228-9	.05005	.00564	.05916	mg/L	107	70	130			
L72130-05ASD	ASD	04/01/22 14:06	MS220228-9	.05005	.00564	.05941	mg/L	107	70	130	0	20	
WG539465CCV3	CCV	04/01/22 14:10	MS220330-4	.1001		.10193	mg/L	102	90	110			
WG539465CCB3	CCB	04/01/22 14:12				U	mg/L		-0.0006	0.0006			

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		1.963	mg/L	98	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.03	0.03			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.05005		.052	mg/L	104	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.1001		.1	mg/L	100	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.5005		.506	mg/L	101	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		.98	mg/L	98	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.03	0.03			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		.988	mg/L	99	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.03	0.03			
L72128-02AS	AS	03/31/22 18:44	II220330-3	2.5025	U	2.512	mg/L	100	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	2.5025	U	2.482	mg/L	99	85	115	1	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.03	0.03			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	2		1.911	mg/L	96	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.03	0.03			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.05005		.048	mg/L	96	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	.1001		.094	mg/L	94	80	120			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	.5005		.492	mg/L	98	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	1		.965	mg/L	97	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.03	0.03			
L66185-44AS	AS	04/01/22 15:54	II220330-3	.5005	U	.489	mg/L	98	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	1		.954	mg/L	95	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.03	0.03			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	.5005	U	.491	mg/L	98	85	115	0	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	1		.969	mg/L	97	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		2.054	mg/L	103	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.09	0.09			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.1001		.115	mg/L	115	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.1001		.108	mg/L	108	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.5005		.534	mg/L	107	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		1.027	mg/L	103	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.09	0.09			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		.997	mg/L	100	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.09	0.09			
L72128-02AS	AS	03/31/22 18:44	II220330-3	2.5025	.389	3.045	mg/L	106	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	2.5025	.389	2.997	mg/L	104	85	115	2	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.09	0.09			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	2		1.966	mg/L	98	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.09	0.09			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.1001		.111	mg/L	111	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	.1001		.114	mg/L	114	80	120			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	.5005		.524	mg/L	105	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	1		1.011	mg/L	101	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.09	0.09			
L66185-44AS	AS	04/01/22 15:54	II220330-3	.5005	U	.508	mg/L	101	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	1		1.003	mg/L	100	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.09	0.09			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	.5005	U	.513	mg/L	102	85	115	1	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	1		.998	mg/L	100	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.09	0.09			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539465													
WG539465ICV	ICV	04/01/22 13:14	MS220125-1	.05		.052388	mg/L	105	90	110			
WG539465ICB	ICB	04/01/22 13:15				U	mg/L		-0.00011	0.00011			
WG539465LFB	LFB	04/01/22 13:17	MS220228-9	.05005		.049871	mg/L	100	85	115			
WG539465CCV1	CCV	04/01/22 13:32	MS220330-4	.1001		.099881	mg/L	100	90	110			
WG539465CCB1	CCB	04/01/22 13:33				U	mg/L		-0.00015	0.00015			
WG539465CCV2	CCV	04/01/22 13:53	MS220330-4	.1001		.098642	mg/L	99	90	110			
WG539465CCB2	CCB	04/01/22 13:55				U	mg/L		-0.00015	0.00015			
L72130-05AS	AS	04/01/22 14:04	MS220228-9	.05005	.000196	.050984	mg/L	101	70	130			
L72130-05ASD	ASD	04/01/22 14:06	MS220228-9	.05005	.000196	.051108	mg/L	102	70	130	0	20	
WG539465CCV3	CCV	04/01/22 14:10	MS220330-4	.1001		.098915	mg/L	99	90	110			
WG539465CCB3	CCB	04/01/22 14:12				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	100		100.73	mg/L	101	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.3	0.3			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.5003		.53	mg/L	106	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	200.6203		196.9	mg/L	98	1	200			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	67.99026		64.5	mg/L	95	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	50		50.77	mg/L	102	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.3	0.3			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	50		50.64	mg/L	101	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.3	0.3			
L72128-02AS	AS	03/31/22 18:44	II220330-3	339.9513	396	722.5	mg/L	96	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	339.9513	396	712.5	mg/L	93	85	115	1	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.3	0.3			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	100		97.58	mg/L	98	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.3	0.3			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.5003		.48	mg/L	96	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	200.6203		190.9	mg/L	95	1	200			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	67.99026		63.86	mg/L	94	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	50		49.3	mg/L	99	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.3	0.3			
L66185-44AS	AS	04/01/22 15:54	II220330-3	67.99026	4.92	67.11	mg/L	91	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	50		48.97	mg/L	98	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.3	0.3			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	67.99026	4.92	67.72	mg/L	92	85	115	1	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	50		49.73	mg/L	99	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539575													
WG539575ICB	ICB	04/04/22 9:03				U	mg/L		-1.5	1.5			
WG539575ICV	ICV	04/04/22 9:03	WI210503-1	54.89		57.85	mg/L	105	90	110			
WG539575CCV1	CCV	04/04/22 11:36	WI220323-1	49.95		53.46	mg/L	107	90	110			
WG539575CCB1	CCB	04/04/22 11:36				U	mg/L		-1.5	1.5			
WG539575CCV2	CCV	04/04/22 11:38	WI220323-1	49.95		53.42	mg/L	107	90	110			
WG539575CCB2	CCB	04/04/22 11:38				U	mg/L		-1.5	1.5			
WG539575CCV3	CCV	04/04/22 11:39	WI220323-1	49.95		53.4	mg/L	107	90	110			
WG539575CCB3	CCB	04/04/22 11:39				U	mg/L		-1.5	1.5			
WG539575CCV4	CCV	04/04/22 11:45	WI220323-1	49.95		53.54	mg/L	107	90	110			
WG539575CCB4	CCB	04/04/22 11:45				U	mg/L		-1.5	1.5			
L72130-02AS	AS	04/04/22 11:45	WI220328-1	29.97	70.2	96.19	mg/L	87	90	110			M2
L72130-03DUP	DUP	04/04/22 11:45			70.9	70.61	mg/L				0	20	
WG539575CCV5	CCV	04/04/22 11:46	WI220323-1	49.95		53.29	mg/L	107	90	110			
WG539575CCB5	CCB	04/04/22 11:46				U	mg/L		-1.5	1.5			
WG539575CCV6	CCV	04/04/22 11:52	WI220323-1	49.95		53.34	mg/L	107	90	110			
WG539575CCB6	CCB	04/04/22 11:52				U	mg/L		-1.5	1.5			
WG539575CCV7	CCV	04/04/22 12:13	WI220323-1	49.95		53.49	mg/L	107	90	110			
WG539575CCB7	CCB	04/04/22 12:13				U	mg/L		-1.5	1.5			
WG539575LFB1	LFB	04/04/22 12:13	WI220328-1	29.97		31.98	mg/L	107	90	110			
WG539575LFB2	LFB	04/04/22 12:13	WI220328-1	29.97		31.82	mg/L	106	90	110			
WG539575CCV8	CCV	04/04/22 12:13	WI220323-1	49.95		53.28	mg/L	107	90	110			
WG539575CCB8	CCB	04/04/22 12:13				U	mg/L		-1.5	1.5			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		1.983	mg/L	99	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.06	0.06			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.05005		.044	mg/L	88	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.1001		.102	mg/L	102	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.5005		.505	mg/L	101	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		.989	mg/L	99	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.06	0.06			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		1	mg/L	100	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.06	0.06			
L72128-02AS	AS	03/31/22 18:44	II220330-3	2.5025	U	2.489	mg/L	99	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	2.5025	U	2.491	mg/L	100	85	115	0	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.06	0.06			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	2		1.904	mg/L	95	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.06	0.06			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.05005		.057	mg/L	114	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	.1001		.097	mg/L	97	80	120			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	.5005		.5	mg/L	100	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	1		.98	mg/L	98	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.06	0.06			
L66185-44AS	AS	04/01/22 15:54	II220330-3	.5005	U	.484	mg/L	97	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	1		.976	mg/L	98	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.06	0.06			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	.5005	U	.493	mg/L	99	85	115	2	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	1		.983	mg/L	98	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.06	0.06			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2.01		1.987	mg/L	99	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.06	0.06			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.05005		.052	mg/L	104	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.1001		.094	mg/L	94	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.5005		.495	mg/L	99	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1.005		1.008	mg/L	100	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.06	0.06			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1.005		.976	mg/L	97	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.06	0.06			
L72128-02AS	AS	03/31/22 18:44	II220330-3	2.5025	U	2.479	mg/L	99	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	2.5025	U	2.441	mg/L	98	85	115	2	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.06	0.06			
WG539550													
WG539550ICV	ICV	04/04/22 11:58	II220401-2	2.01		1.947	mg/L	97	95	105			
WG539550ICB	ICB	04/04/22 12:04				U	mg/L		-0.06	0.06			
WG539550PQV	PQV	04/04/22 12:07	II220329-2	.05005		.056	mg/L	112	70	130			
WG539550SIC	SIC	04/04/22 12:10	II220228-3	.1001		.097	mg/L	97	80	120			
WG539550LFB	LFB	04/04/22 12:17	II220330-3	.5005		.507	mg/L	101	85	115			
WG539550CCV1	CCV	04/04/22 12:49	II220324-1	1.005		1.005	mg/L	100	90	110			
WG539550CCB1	CCB	04/04/22 12:52				U	mg/L		-0.06	0.06			
L66185-44AS	AS	04/04/22 13:24	II220330-3	.5005	U	.534	mg/L	107	85	115			
WG539550CCV2	CCV	04/04/22 13:27	II220324-1	1.005		1.004	mg/L	100	90	110			
WG539550CCB2	CCB	04/04/22 13:30				U	mg/L		-0.06	0.06			
L66185-44ASD	ASD	04/04/22 13:34	II220330-3	.5005	U	.532	mg/L	106	85	115	0	20	
WG539550CCV3	CCV	04/04/22 13:50	II220324-1	1.005		1.005	mg/L	100	90	110			
WG539550CCB3	CCB	04/04/22 13:53				U	mg/L		-0.06	0.06			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		1.977	mg/L	99	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.03	0.03			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.05		.048	mg/L	96	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.1		.1	mg/L	100	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.5		.502	mg/L	100	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		.989	mg/L	99	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.03	0.03			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		.988	mg/L	99	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.03	0.03			
L72128-02AS	AS	03/31/22 18:44	II220330-3	2.5	U	2.48	mg/L	99	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	2.5	U	2.479	mg/L	99	85	115	0	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.03	0.03			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	2		1.944	mg/L	97	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.03	0.03			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.05		.046	mg/L	92	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	.1		.096	mg/L	96	80	120			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	.5		.489	mg/L	98	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	1		.968	mg/L	97	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.03	0.03			
L66185-44AS	AS	04/01/22 15:54	II220330-3	.5	.047	.532	mg/L	97	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	1		.971	mg/L	97	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.03	0.03			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	.5	.047	.531	mg/L	97	85	115	0	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	1		.979	mg/L	98	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.03	0.03			

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539478													
WG539478ICV	ICV	04/01/22 14:31	WC220331-1	2.008		2.13	mg/L	106	90	110			
WG539478ICB	ICB	04/01/22 14:36				U	mg/L		-0.3	0.3			
WG539478PQV	PQV	04/01/22 14:41	WC220304-2	.3514		.39	mg/L	111	70	130			
WG539478LFB1	LFB	04/01/22 14:46	WC220104-2	5.02		5.14	mg/L	102	90	110			
WG539478CCV2	CCV	04/01/22 16:15	WC220331-1	2.008		2.19	mg/L	109	90	110			
WG539478CCB2	CCB	04/01/22 16:23				U	mg/L		-0.3	0.3			
WG539478CCV3	CCV	04/01/22 17:58	WC220331-1	2.008		2.18	mg/L	109	90	110			
WG539478CCB3	CCB	04/01/22 18:06				U	mg/L		-0.3	0.3			
WG539478LFB2	LFB	04/01/22 18:51	WC220104-2	5.02		5.42	mg/L	108	90	110			
WG539478CCV4	CCV	04/01/22 19:27	WC220331-1	2.008		2.12	mg/L	106	90	110			
WG539478CCB4	CCB	04/01/22 19:35				U	mg/L		-0.3	0.3			
L72128-03AS	AS	04/01/22 20:22	WC220104-2	5.02	.56	5.39	mg/L	96	90	110			
L72128-03ASD	ASD	04/01/22 20:30	WC220104-2	5.02	.56	5.39	mg/L	96	90	110	0	20	
WG539478CCV5	CCV	04/01/22 20:42	WC220331-1	2.008		2.14	mg/L	107	90	110			
WG539478CCB5	CCB	04/01/22 20:50				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		1.956	mg/L	98	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.18	0.18			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.150015		.149	mg/L	99	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	200.170015		192.1	mg/L	96	1	200			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	1.0001		1.031	mg/L	103	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		.995	mg/L	100	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.18	0.18			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		.989	mg/L	99	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.18	0.18			
L72128-02AS	AS	03/31/22 18:44	II220330-3	5.0005	U	5.17	mg/L	103	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	5.0005	U	5.08	mg/L	102	85	115	2	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.18	0.18			
WG539550													
WG539550ICV	ICV	04/04/22 11:58	II220401-2	2		1.941	mg/L	97	95	105			
WG539550ICB	ICB	04/04/22 12:04				U	mg/L		-0.18	0.18			
WG539550PQV	PQV	04/04/22 12:07	II220329-2	.150015		.156	mg/L	104	70	130			
WG539550SIC	SIC	04/04/22 12:10	II220228-3	200.170015		193.3	mg/L	97	1	200			
WG539550LFB	LFB	04/04/22 12:17	II220330-3	1.0001		1.036	mg/L	104	85	115			
WG539550CCV1	CCV	04/04/22 12:49	II220324-1	1		1.004	mg/L	100	90	110			
WG539550CCB1	CCB	04/04/22 12:52				U	mg/L		-0.18	0.18			
L66185-44AS	AS	04/04/22 13:24	II220330-3	1.0001	U	1.063	mg/L	106	85	115			
WG539550CCV2	CCV	04/04/22 13:27	II220324-1	1		.998	mg/L	100	90	110			
WG539550CCB2	CCB	04/04/22 13:30				U	mg/L		-0.18	0.18			
L66185-44ASD	ASD	04/04/22 13:34	II220330-3	1.0001	U	1.063	mg/L	106	85	115	0	20	
WG539550CCV3	CCV	04/04/22 13:50	II220324-1	1		1.001	mg/L	100	90	110			
WG539550CCB3	CCB	04/04/22 13:53				U	mg/L		-0.18	0.18			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539465													
WG539465ICV	ICV	04/01/22 13:14	MS220125-1	.05		.05211	mg/L	104	90	110			
WG539465ICB	ICB	04/01/22 13:15				U	mg/L		-0.00022	0.00022			
WG539465LFB	LFB	04/01/22 13:17	MS220228-9	.0501		.04972	mg/L	99	85	115			
WG539465CCV1	CCV	04/01/22 13:32	MS220330-4	.2505		.25014	mg/L	100	90	110			
WG539465CCB1	CCB	04/01/22 13:33				U	mg/L		-0.0003	0.0003			
WG539465CCV2	CCV	04/01/22 13:53	MS220330-4	.2505		.24985	mg/L	100	90	110			
WG539465CCB2	CCB	04/01/22 13:55				U	mg/L		-0.0003	0.0003			
L72130-05AS	AS	04/01/22 14:04	MS220228-9	.0501	U	.05087	mg/L	102	70	130			
L72130-05ASD	ASD	04/01/22 14:06	MS220228-9	.0501	U	.0513	mg/L	102	70	130	1	20	
WG539465CCV3	CCV	04/01/22 14:10	MS220330-4	.2505		.24975	mg/L	100	90	110			
WG539465CCB3	CCB	04/01/22 14:12				U	mg/L		-0.0003	0.0003			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		1.9708	mg/L	99	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.024	0.024			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.03992		.0423	mg/L	106	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.0998		.1039	mg/L	104	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.998		.9675	mg/L	97	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		.9852	mg/L	99	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.024	0.024			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		.9899	mg/L	99	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.024	0.024			
L72128-02AS	AS	03/31/22 18:44	II220330-3	4.99	.549	5.43	mg/L	98	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	4.99	.549	5.39	mg/L	97	85	115	1	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.024	0.024			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	2		1.9322	mg/L	97	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.024	0.024			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.03992		.0342	mg/L	86	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	.0998		.0943	mg/L	94	80	120			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	.998		.9463	mg/L	95	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	1		.9636	mg/L	96	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.024	0.024			
L66185-44AS	AS	04/01/22 15:54	II220330-3	.998	U	.9363	mg/L	94	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	1		.962	mg/L	96	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.024	0.024			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	.998	U	.9396	mg/L	94	85	115	0	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	1		.9692	mg/L	97	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.024	0.024			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	100		97.05	mg/L	97	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.6	0.6			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	1.0001		.92	mg/L	92	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	201.0201		202.3	mg/L	101	1	200			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	49.99828		49.07	mg/L	98	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	50		48.96	mg/L	98	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.6	0.6			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	50		48.59	mg/L	97	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.6	0.6			
L72128-02AS	AS	03/31/22 18:44	II220330-3	249.9914	428	681	mg/L	101	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	249.9914	428	669.5	mg/L	97	85	115	2	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.6	0.6			
WG539550													
WG539550ICV	ICV	04/04/22 11:58	II220401-2	100		95.11	mg/L	95	95	105			
WG539550ICB	ICB	04/04/22 12:04				U	mg/L		-0.6	0.6			
WG539550PQV	PQV	04/04/22 12:07	II220329-2	1.0001		1.02	mg/L	102	70	130			
WG539550SIC	SIC	04/04/22 12:10	II220228-3	201.0201		204.5	mg/L	102	1	200			
WG539550LFB	LFB	04/04/22 12:17	II220330-3	49.99828		49.9	mg/L	100	85	115			
WG539550CCV1	CCV	04/04/22 12:49	II220324-1	50		48.54	mg/L	97	90	110			
WG539550CCB1	CCB	04/04/22 12:52				U	mg/L		-0.6	0.6			
L66185-44AS	AS	04/04/22 13:24	II220330-3	49.99828	.36	51.11	mg/L	102	85	115			
WG539550CCV2	CCV	04/04/22 13:27	II220324-1	50		48.58	mg/L	97	90	110			
WG539550CCB2	CCB	04/04/22 13:30				U	mg/L		-0.6	0.6			
L66185-44ASD	ASD	04/04/22 13:34	II220330-3	49.99828	.36	51.04	mg/L	101	85	115	0	20	
WG539550CCV3	CCV	04/04/22 13:50	II220324-1	50		48.48	mg/L	97	90	110			
WG539550CCB3	CCB	04/04/22 13:53				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		1.943	mg/L	97	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.03	0.03			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.05005		.049	mg/L	98	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	49.95005		46.13	mg/L	92	1	200			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.499		.503	mg/L	101	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		.982	mg/L	98	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.03	0.03			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		.98	mg/L	98	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.03	0.03			
L72128-02AS	AS	03/31/22 18:44	II220330-3	2.495	.055	2.573	mg/L	101	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	2.495	.055	2.541	mg/L	100	85	115	1	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.03	0.03			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	2		1.89	mg/L	95	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.03	0.03			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.05005		.041	mg/L	82	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	49.95005		45.62	mg/L	91	1	200			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	.499		.486	mg/L	97	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	1		.955	mg/L	96	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.03	0.03			
L66185-44AS	AS	04/01/22 15:54	II220330-3	.499	1.18	1.59	mg/L	82	85	115			M2
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	1		.949	mg/L	95	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.03	0.03			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	.499	1.18	1.584	mg/L	81	85	115	0	20	M2
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	1		.962	mg/L	96	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.03	0.03			

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539071													
WG539071ICV	ICV	03/28/22 12:18	HG220328-3	.005005		.00496	mg/L	99	95	105			
WG539071ICB	ICB	03/28/22 12:19				U	mg/L		-0.0002	0.0002			
WG539071PQV	PQV	03/28/22 12:20	HG220328-5	.001001		.00097	mg/L	97	70	130			
WG539071LRB	LRB	03/28/22 12:21				U	mg/L		-0.00044	0.00044			
WG539071LFB	LFB	03/28/22 12:22	HG220328-6	.002002		.00204	mg/L	102	85	115			
L72128-03LFM	LFM	03/28/22 12:26	HG220328-6	.002002	U	.002	mg/L	100	85	115			
L72128-03LFMD	LFMD	03/28/22 12:27	HG220328-6	.002002	U	.00191	mg/L	95	85	115	5	20	
WG539071CCV1	CCV	03/28/22 12:30	HG220328-3	.005005		.00525	mg/L	105	90	110			
WG539071CCB1	CCB	03/28/22 12:31				U	mg/L		-0.0002	0.0002			
WG539071CCV2	CCV	03/28/22 12:42	HG220328-3	.005005		.00517	mg/L	103	90	110			
WG539071CCB2	CCB	03/28/22 12:43				U	mg/L		-0.0002	0.0002			
WG539071CCV3	CCV	03/28/22 12:51	HG220328-3	.005005		.00518	mg/L	103	90	110			
WG539071CCB3	CCB	03/28/22 12:53				U	mg/L		-0.0002	0.0002			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		1.989	mg/L	99	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.024	0.024			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.04004		.039	mg/L	97	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.1001		.0909	mg/L	91	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.5005		.5031	mg/L	101	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		.9933	mg/L	99	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.024	0.024			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		.968	mg/L	97	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.024	0.024			
L72128-02AS	AS	03/31/22 18:44	II220330-3	2.5025	U	2.5295	mg/L	101	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	2.5025	U	2.4855	mg/L	99	85	115	2	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.024	0.024			
WG539550													
WG539550ICV	ICV	04/04/22 11:58	II220401-2	2		1.953	mg/L	98	95	105			
WG539550ICB	ICB	04/04/22 12:04				U	mg/L		-0.024	0.024			
WG539550PQV	PQV	04/04/22 12:07	II220329-2	.04004		.0398	mg/L	99	70	130			
WG539550SIC	SIC	04/04/22 12:10	II220228-3	.1001		.099	mg/L	99	80	120			
WG539550LFB	LFB	04/04/22 12:17	II220330-3	.5005		.5107	mg/L	102	85	115			
WG539550CCV1	CCV	04/04/22 12:49	II220324-1	1		1.007	mg/L	101	90	110			
WG539550CCB1	CCB	04/04/22 12:52				U	mg/L		-0.024	0.024			
L66185-44AS	AS	04/04/22 13:24	II220330-3	.5005	.0124	.5444	mg/L	106	85	115			
WG539550CCV2	CCV	04/04/22 13:27	II220324-1	1		.998	mg/L	100	90	110			
WG539550CCB2	CCB	04/04/22 13:30				U	mg/L		-0.024	0.024			
L66185-44ASD	ASD	04/04/22 13:34	II220330-3	.5005	.0124	.5419	mg/L	106	85	115	0	20	
WG539550CCV3	CCV	04/04/22 13:50	II220324-1	1		1.006	mg/L	101	90	110			
WG539550CCB3	CCB	04/04/22 13:53				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538859													
WG538859ICV	ICV	03/23/22 22:08	WI220301-7	2.4161		2.371	mg/L	98	90	110			
WG538859ICB	ICB	03/23/22 22:10				U	mg/L		-0.02	0.02			
WG538859PQV	PQV	03/23/22 22:13	WI211001-6	.1		.081	mg/L	81	70	130			
WG538859LFB	LFB	03/23/22 22:15	WI211001-5	2		2.161	mg/L	108	90	110			
L71970-01AS	AS	03/23/22 22:17	WI211001-5	2	1.29	3.39	mg/L	105	90	110			
L72116-01DUP	DUP	03/23/22 22:20			.261	.258	mg/L				1	20	
WG538859CCV1	CCV	03/23/22 22:23	WI220321-3	2		2.039	mg/L	102	90	110			
WG538859CCB1	CCB	03/23/22 22:27				U	mg/L		-0.02	0.02			
WG538859CCV2	CCV	03/23/22 22:41	WI220321-3	2		2.034	mg/L	102	90	110			
WG538859CCB2	CCB	03/23/22 22:44				U	mg/L		-0.02	0.02			
WG538859CCV3	CCV	03/23/22 22:58	WI220321-3	2		2.023	mg/L	101	90	110			
WG538859CCB3	CCB	03/23/22 23:02				U	mg/L		-0.02	0.02			
WG538859CCV4	CCV	03/23/22 23:06	WI220321-3	2		2.021	mg/L	101	90	110			
WG538859CCB4	CCB	03/23/22 23:09				U	mg/L		-0.02	0.02			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538859													
WG538859ICV	ICV	03/23/22 22:08	WI220301-7	.6089		.619	mg/L	102	90	110			
WG538859ICB	ICB	03/23/22 22:10				U	mg/L		-0.01	0.01			
WG538859PQV	PQV	03/23/22 22:13	WI211001-6	.05		.044	mg/L	88	70	130			
WG538859LFB	LFB	03/23/22 22:15	WI211001-5	1		1.063	mg/L	106	90	110			
L71970-01AS	AS	03/23/22 22:17	WI211001-5	1	U	1.05	mg/L	105	90	110			
L72116-01DUP	DUP	03/23/22 22:20			U	U	mg/L				0	20	RA
WG538859CCV1	CCV	03/23/22 22:23	WI220321-3	1		1.013	mg/L	101	90	110			
WG538859CCB1	CCB	03/23/22 22:27				U	mg/L		-0.01	0.01			
WG538859CCV2	CCV	03/23/22 22:41	WI220321-3	1		1.01	mg/L	101	90	110			
WG538859CCB2	CCB	03/23/22 22:44				U	mg/L		-0.01	0.01			
WG538859CCV3	CCV	03/23/22 22:58	WI220321-3	1		1.015	mg/L	102	90	110			
WG538859CCB3	CCB	03/23/22 23:02				U	mg/L		-0.01	0.01			
WG538859CCV4	CCV	03/23/22 23:06	WI220321-3	1		1.009	mg/L	101	90	110			
WG538859CCB4	CCB	03/23/22 23:09				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	20		19.8	mg/L	99	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.6	0.6			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.9958		1.01	mg/L	101	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.9958		.97	mg/L	97	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	99.95169		100.7	mg/L	101	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	10		9.95	mg/L	100	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.6	0.6			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	10		9.97	mg/L	100	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.6	0.6			
L72128-02AS	AS	03/31/22 18:44	II220330-3	499.75845	10.8	521	mg/L	102	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	499.75845	10.8	517	mg/L	101	85	115	1	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.6	0.6			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	20		19.26	mg/L	96	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.6	0.6			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.9958		1	mg/L	100	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	.9958		.96	mg/L	96	80	120			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	99.95169		99.64	mg/L	100	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	10		9.75	mg/L	98	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.6	0.6			
L66185-44AS	AS	04/01/22 15:54	II220330-3	99.95169	.29	98.02	mg/L	98	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	10		9.65	mg/L	97	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.6	0.6			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	99.95169	.29	98.44	mg/L	98	85	115	0	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	10		9.73	mg/L	97	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538916													
WG538916PBW	PBW	03/24/22 12:52				U	mg/L		-20	20			
WG538916LCSW	LCSW	03/24/22 12:54	PCN65060	1000		980	mg/L	98	80	120			
L72129-01DUP	DUP	03/24/22 13:52			400	402	mg/L				0	10	

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539465													
WG539465ICV	ICV	04/01/22 13:14	MS220125-1	.05		.05107	mg/L	102	90	110			
WG539465ICB	ICB	04/01/22 13:15				.00018	mg/L		-0.00022	0.00022			
WG539465LFB	LFB	04/01/22 13:17	MS220228-9	.05		.04926	mg/L	99	85	115			
WG539465CCV1	CCV	04/01/22 13:32	MS220330-4	.25		.24967	mg/L	100	90	110			
WG539465CCB1	CCB	04/01/22 13:33				U	mg/L		-0.0003	0.0003			
WG539465CCV2	CCV	04/01/22 13:53	MS220330-4	.25		.25361	mg/L	101	90	110			
WG539465CCB2	CCB	04/01/22 13:55				U	mg/L		-0.0003	0.0003			
L72130-05AS	AS	04/01/22 14:04	MS220228-9	.05	.00041	.05326	mg/L	106	70	130			
L72130-05ASD	ASD	04/01/22 14:06	MS220228-9	.05	.00041	.05346	mg/L	106	70	130	0	20	
WG539465CCV3	CCV	04/01/22 14:10	MS220330-4	.25		.25287	mg/L	101	90	110			
WG539465CCB3	CCB	04/01/22 14:12				U	mg/L		-0.0003	0.0003			

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	100		100.68	mg/L	101	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.6	0.6			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	1.0053		1.02	mg/L	101	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	1.0053		1.06	mg/L	105	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	100.0039		101.8	mg/L	102	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	50		51.04	mg/L	102	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.6	0.6			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	50		51.02	mg/L	102	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.6	0.6			
L72128-02AS	AS	03/31/22 18:44	II220330-3	500.0195	671	1188.5	mg/L	103	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	500.0195	671	1177.5	mg/L	101	85	115	1	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.6	0.6			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	100		97.68	mg/L	98	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.6	0.6			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	1.0053		1	mg/L	99	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	1.0053		1.11	mg/L	110	80	120			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	100.0039		100.3	mg/L	100	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	50		48.98	mg/L	98	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.6	0.6			
L66185-44AS	AS	04/01/22 15:54	II220330-3	100.0039	U	98.59	mg/L	99	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	50		48.77	mg/L	98	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.6	0.6			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	100.0039	U	98.28	mg/L	98	85	115	0	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	50		49.04	mg/L	98	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539625													
WG539625ICB	ICB	04/04/22 18:35				U	mg/L		-3	3			
WG539625ICV	ICV	04/04/22 18:35	WI220331-10	20.46		18.4	mg/L	90	90	110			
WG539625CCV1	CCV	04/04/22 21:55	WI220331-11	24.875		25.2	mg/L	101	90	110			
WG539625CCB1	CCB	04/04/22 21:55				U	mg/L		-3	3			
WG539625LFB	LFB	04/04/22 21:55	WI211230-5	9.95		10.1	mg/L	102	90	110			
WG539625CCV2	CCV	04/04/22 21:57	WI220331-11	24.875		24.8	mg/L	100	90	110			
WG539625CCB2	CCB	04/04/22 21:57				U	mg/L		-3	3			
L72116-01AS	AS	04/04/22 21:57	WI211230-5	9.95	20.5	25.2	mg/L	47	90	110			M2
WG539625CCV3	CCV	04/04/22 21:58	WI220331-11	24.875		25	mg/L	101	90	110			
WG539625CCB3	CCB	04/04/22 21:58				U	mg/L		-3	3			
WG539625CCV4	CCV	04/04/22 22:00	WI220331-11	24.875		24.8	mg/L	100	90	110			
WG539625CCB4	CCB	04/04/22 22:00				U	mg/L		-3	3			
WG539625CCV5	CCV	04/04/22 22:13	WI220331-11	24.875		25	mg/L	101	90	110			
WG539625CCB5	CCB	04/04/22 22:13				U	mg/L		-3	3			
WG539625CCV6	CCV	04/04/22 22:15	WI220331-11	24.875		25.1	mg/L	101	90	110			
WG539625CCB6	CCB	04/04/22 22:15				U	mg/L		-3	3			
WG539625CCV7	CCV	04/04/22 22:27	WI220331-11	24.875		25	mg/L	101	90	110			
WG539625CCB7	CCB	04/04/22 22:27				U	mg/L		-3	3			
WG539625CCV8	CCV	04/04/22 22:29	WI220331-11	24.875		24.8	mg/L	100	90	110			
WG539625CCB8	CCB	04/04/22 22:29				U	mg/L		-3	3			
WG539625CCV9	CCV	04/04/22 22:32	WI220331-11	24.875		25.3	mg/L	102	90	110			
WG539625CCB9	CCB	04/04/22 22:32				U	mg/L		-3	3			
L72115-04DUP	DUP	04/04/22 22:38			2970	2987.9	mg/L				1	20	
WG539625CCV10	CCV	04/04/22 22:39	WI220331-11	24.875		24.8	mg/L	100	90	110			
WG539625CCB10	CCB	04/04/22 22:39				U	mg/L		-3	3			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		2.011	mg/L	101	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.015	0.015			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.025025		.028	mg/L	112	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.1001		.103	mg/L	103	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.5005		.519	mg/L	104	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		1.01	mg/L	101	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.03	0.03			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		1.015	mg/L	102	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.03	0.03			
L72128-02AS	AS	03/31/22 18:44	II220330-3	2.5025	U	2.596	mg/L	104	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	2.5025	U	2.569	mg/L	103	85	115	1	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.03	0.03			
WG539461													
WG539461ICV	ICV	04/01/22 14:26	II220311-1	2		1.966	mg/L	98	95	105			
WG539461ICB	ICB	04/01/22 14:32				U	mg/L		-0.015	0.015			
WG539461PQV	PQV	04/01/22 14:36	II220329-2	.025025		.022	mg/L	88	70	130			
WG539461SIC	SIC	04/01/22 14:39	II220228-3	.1001		.097	mg/L	97	80	120			
WG539461LFB	LFB	04/01/22 14:45	II220330-3	.5005		.5128	mg/L	102	85	115			
WG539461CCV1	CCV	04/01/22 15:18	II220324-1	1		.991	mg/L	99	90	110			
WG539461CCB1	CCB	04/01/22 15:21				U	mg/L		-0.03	0.03			
L66185-44AS	AS	04/01/22 15:54	II220330-3	.5005	U	.5025	mg/L	100	85	115			
WG539461CCV2	CCV	04/01/22 15:57	II220324-1	1		.989	mg/L	99	90	110			
WG539461CCB2	CCB	04/01/22 16:00				U	mg/L		-0.03	0.03			
L66185-44ASD	ASD	04/01/22 16:03	II220330-3	.5005	U	.503	mg/L	100	85	115	0	20	
WG539461CCV3	CCV	04/01/22 16:20	II220324-1	1		.996	mg/L	100	90	110			
WG539461CCB3	CCB	04/01/22 16:23				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L72128***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539409													
WG539409ICV	ICV	03/31/22 17:07	II220311-1	2		1.985	mg/L	99	95	105			
WG539409ICB	ICB	03/31/22 17:14				U	mg/L		-0.06	0.06			
WG539409PQV	PQV	03/31/22 17:17	II220329-2	.05015		.053	mg/L	106	70	130			
WG539409SIC	SIC	03/31/22 17:20	II220228-3	.1003		.102	mg/L	102	80	120			
WG539409LFB	LFB	03/31/22 17:27	II220330-3	.50045		.516	mg/L	103	85	115			
WG539409CCV1	CCV	03/31/22 17:59	II220324-1	1		.998	mg/L	100	90	110			
WG539409CCB1	CCB	03/31/22 18:02				U	mg/L		-0.06	0.06			
WG539409CCV2	CCV	03/31/22 18:38	II220324-1	1		.973	mg/L	97	90	110			
WG539409CCB2	CCB	03/31/22 18:41				U	mg/L		-0.06	0.06			
L72128-02AS	AS	03/31/22 18:44	II220330-3	2.50225	U	2.653	mg/L	106	85	115			
L72128-02ASD	ASD	03/31/22 18:48	II220330-3	2.50225	U	2.573	mg/L	103	85	115	3	20	
WG539409CCB3	CCB	03/31/22 19:04				U	mg/L		-0.06	0.06			
WG539550													
WG539550ICV	ICV	04/04/22 11:58	II220401-2	2		1.895	mg/L	95	95	105			
WG539550ICB	ICB	04/04/22 12:04				U	mg/L		-0.06	0.06			
WG539550PQV	PQV	04/04/22 12:07	II220329-2	.05015		.047	mg/L	94	70	130			
WG539550SIC	SIC	04/04/22 12:10	II220228-3	.1003		.093	mg/L	93	80	120			
WG539550LFB	LFB	04/04/22 12:17	II220330-3	.50045		.517	mg/L	103	85	115			
WG539550CCV1	CCV	04/04/22 12:49	II220324-1	1		.983	mg/L	98	90	110			
WG539550CCB1	CCB	04/04/22 12:52				U	mg/L		-0.06	0.06			
L66185-44AS	AS	04/04/22 13:24	II220330-3	.50045	.049	.59	mg/L	108	85	115			
WG539550CCV2	CCV	04/04/22 13:27	II220324-1	1		.977	mg/L	98	90	110			
WG539550CCB2	CCB	04/04/22 13:30				U	mg/L		-0.06	0.06			
L66185-44ASD	ASD	04/04/22 13:34	II220330-3	.50045	.049	.575	mg/L	105	85	115	3	20	
WG539550CCV3	CCV	04/04/22 13:50	II220324-1	1		.978	mg/L	98	90	110			
WG539550CCB3	CCB	04/04/22 13:53				U	mg/L		-0.06	0.06			

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

GCC Rio Grande

ACZ Project ID: ***L72128***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72128-01	WG539575	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG538859	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG538916	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG539625	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L72128-02	WG539575	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG538859	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG538916	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG539625	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L72128-03	WG539575	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG539461	Manganese, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG538859	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG538916	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG539625	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L72128***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L72128
Date Received: 03/23/2022 11:45
Received By:
Date Printed: 3/24/2022

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
4395	3.4	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L72128
Date Received: 03/23/2022 11:45
Received By:
Date Printed: 3/24/2022

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ LABORATORIES | Accredited Environmental Testing | 2773 Downhill Drive Steamboat Springs, CO 80487 (970) 879-6590 | L72128

CHAIN of CUSTODY

Report to:

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road Pueblo CO 81004
Telephone: 719-647-6861

Copy of Report to:

Name: Landon Beck
Company: RHS
E-mail: Lbeck@resourcehydrogeologic.com
Telephone:

Invoice to:

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road Pueblo CO 81004
Telephone: 719-647-6861

Copy of Invoice to:

Name:
Company:
E-mail:
Address:
Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes [ ] No [X]

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Amy Veek **Sampler's Site Information** State CO Zip code 81004 Time Zone MDT

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material? [ ]

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	GW-Compliance							
MW-6	3/22/2022 14:09	GW	3	X							
MW-7	3/22/2022 15:25	GW	3	X							
MW-2B	3/22/2022 15:35	GW	3	X							

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	3/22/2022 16:52	[signature]	3/23/22 11:45

L72128 Chain of Custod

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

April 13, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L72166

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 24, 2022. This project has been assigned to ACZ's project number, L72166. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L72166. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after April 13, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber has reviewed and approved this report.

GCC Rio Grande

April 13, 2022

Project ID: 105495
ACZ Project ID: L72166

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 2 groundwater samples from GCC Rio Grande on March 24, 2022. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L72166. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.
Qualifier: N1
Applies to: L72166-01/TOTAL DISSOLVED SOLIDS

See Case Narrative.
Oven range is 80 C to 91 C.
Over the weekend, the oven had a minor high/low temperature out of range. When the oven temperature was checked on Monday 3/28/22, the max temp read at 92.8 C and low at 73.1?C. The WG was removed from the oven on 3/28/22 when the oven was back in range.
The WG was examined and there was no splattering of samples.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

GCC Rio Grande
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L72166-01***
Date Sampled: *03/23/22 10:10*
Date Received: *03/24/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	04/01/22 18:00	wtc
Arsenic, dissolved	M200.8 ICP-MS	10	<0.002	U	*	mg/L	0.002	0.01	04/01/22 16:41	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	04/01/22 18:00	wtc
Boron, dissolved	M200.7 ICP	1	0.410			mg/L	0.03	0.1	04/01/22 18:00	wtc
Cadmium, dissolved	M200.8 ICP-MS	10	<0.0005	U	*	mg/L	0.0005	0.0025	04/01/22 16:41	mfm
Calcium, dissolved	M200.7 ICP	1	45.4			mg/L	0.1	0.5	04/01/22 18:00	wtc
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	04/04/22 20:17	jlw
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	04/01/22 18:00	wtc
Copper, dissolved	M200.7 ICP	1	<0.01	U	*	mg/L	0.01	0.05	04/01/22 18:00	wtc
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	04/01/22 18:00	wtc
Lead, dissolved	M200.8 ICP-MS	10	<0.001	U	*	mg/L	0.001	0.005	04/01/22 16:41	mfm
Lithium, dissolved	M200.7 ICP	1	0.150			mg/L	0.008	0.04	04/01/22 18:00	wtc
Magnesium, dissolved	M200.7 ICP	1	24.4			mg/L	0.2	1	04/01/22 18:00	wtc
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	04/01/22 18:00	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/28/22 12:33	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	04/01/22 18:00	wtc
Potassium, dissolved	M200.7 ICP	1	3.56			mg/L	0.2	1	04/01/22 18:00	wtc
Selenium, dissolved	M200.8 ICP-MS	20	<0.002	U	*	mg/L	0.002	0.005	04/06/22 20:33	kja
Sodium, dissolved	M200.7 ICP	1	461		*	mg/L	0.2	1	04/01/22 18:00	wtc
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	04/01/22 18:00	wtc
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	04/01/22 18:00	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	782			mg/L	2	20	03/29/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	03/29/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	03/29/22 0:00	jck
Total Alkalinity		1	782		*	mg/L	2	20	03/29/22 0:00	jck
Chloride	SM4500Cl-E	5	133			mg/L	2.5	10	04/07/22 16:13	bls
Fluoride	SM4500F-C	1	0.82			mg/L	0.15	0.35	04/09/22 15:01	eep
Nitrate as N	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	01/23/23 0:00	calc
Nitrate/Nitrite as N	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	03/24/22 23:45	pjb
Nitrite as N	M353.2 - Automated Cadmium Reduction	1	0.017	B	*	mg/L	0.01	0.05	03/24/22 23:21	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	1500		*	mg/L	20	40	03/25/22 19:25	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	10	353		*	mg/L	10	50	04/05/22 13:38	syw

GCC Rio Grande
Project ID: 105495
Sample ID: MW-13

ACZ Sample ID: ***L72166-02***
Date Sampled: *03/23/22 16:24*
Date Received: *03/24/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	04/01/22 18:09	wtc
Arsenic, dissolved	M200.8 ICP-MS	2	0.00178	B		mg/L	0.0004	0.002	04/01/22 16:51	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	04/01/22 18:09	wtc
Boron, dissolved	M200.7 ICP	2	0.938			mg/L	0.06	0.2	04/01/22 18:09	wtc
Cadmium, dissolved	M200.8 ICP-MS	2	<0.0001	U		mg/L	0.0001	0.0005	04/01/22 16:51	mfm
Calcium, dissolved	M200.7 ICP	2	5.46			mg/L	0.2	1	04/01/22 18:09	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	04/04/22 20:20	jlw
Cobalt, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	04/01/22 18:09	wtc
Copper, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.1	04/01/22 18:09	wtc
Iron, dissolved	M200.7 ICP	2	<0.12	U		mg/L	0.12	0.3	04/01/22 18:09	wtc
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	04/01/22 16:51	mfm
Lithium, dissolved	M200.7 ICP	2	0.182			mg/L	0.016	0.08	04/01/22 18:09	wtc
Magnesium, dissolved	M200.7 ICP	2	1.45	B		mg/L	0.4	2	04/01/22 18:09	wtc
Manganese, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	04/01/22 18:09	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/28/22 12:34	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	04/01/22 18:09	wtc
Potassium, dissolved	M200.7 ICP	2	2.86			mg/L	0.4	2	04/01/22 18:09	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.0005	04/06/22 20:35	kja
Sodium, dissolved	M200.7 ICP	2	885		*	mg/L	0.4	2	04/01/22 18:09	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	04/01/22 18:09	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	04/01/22 18:09	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1030			mg/L	2	20	03/29/22 0:00	jck
Carbonate as CaCO3		1	28.8			mg/L	2	20	03/29/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	03/29/22 0:00	jck
Total Alkalinity		1	1060			mg/L	2	20	03/29/22 0:00	jck
Chloride	SM4500Cl-E	25	573			mg/L	12.5	50	04/07/22 16:13	bls
Fluoride	SM4500F-C	1	5.41			mg/L	0.15	0.35	04/09/22 15:13	eep
Nitrate as N	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	01/23/23 0:00	calc
Nitrate/Nitrite as N	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	03/24/22 23:22	pjb
Nitrite as N	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	03/24/22 23:22	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	2430			mg/L	100	200	03/28/22 12:27	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	10	234		*	mg/L	10	50	04/05/22 13:38	syw

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539236													
WG539236PBW1	PBW	03/29/22 18:31				3	mg/L		-20	20			
WG539236LCSW3	LCSW	03/29/22 18:49	WC220328-1	820.0001		789.9	mg/L	96	90	110			
WG539236PQV2	PQV	03/29/22 18:58	WC210630-2	20		24.1	mg/L	121	50	150			
L72170-02DUP	DUP	03/29/22 20:39			132	131.6	mg/L				0	20	
WG539236LCSW6	LCSW	03/29/22 22:29	WC220328-1	820.0001		838	mg/L	102	90	110			
WG539236PBW2	PBW	03/29/22 22:35				5.1	mg/L		-20	20			
WG539236LCSW9	LCSW	03/30/22 2:32	WC220328-1	820.0001		807.5	mg/L	98	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		1.965	mg/L	98	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.15	0.15			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.2502		.236	mg/L	94	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	200.4102		205.8	mg/L	103	1	200			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	1.0008		1.042	mg/L	104	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		.976	mg/L	98	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.15	0.15			
L72166-01AS	AS	04/01/22 18:03	II220330-3	1.0008	U	1.027	mg/L	103	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	1.0008	U	1.022	mg/L	102	85	115	0	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		.976	mg/L	98	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.15	0.15			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		.981	mg/L	98	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.15	0.15			

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539502													
WG539502ICV	ICV	04/01/22 16:22	MS220125-1	.05		.05103	mg/L	102	90	110			
WG539502ICB	ICB	04/01/22 16:24				U	mg/L		-0.00044	0.00044			
WG539502LFB	LFB	04/01/22 16:26	MS220228-9	.05005		.04722	mg/L	94	85	115			
L72166-01AS	AS	04/01/22 16:43	MS220228-9	.5005	U	.45021	mg/L	90	70	130			
WG539502CCV1	CCV	04/01/22 16:45	MS220330-4	.1001		.0972	mg/L	97	90	110			
WG539502CCB1	CCB	04/01/22 16:47				U	mg/L		-0.0006	0.0006			
L72166-01ASD	ASD	04/01/22 16:49	MS220228-9	.5005	U	.45558	mg/L	91	70	130	1	20	
WG539502CCV2	CCV	04/01/22 17:08	MS220330-4	.1001		.0949	mg/L	95	90	110			
WG539502CCB2	CCB	04/01/22 17:09				U	mg/L		-0.0006	0.0006			
WG539502CCV3	CCV	04/01/22 17:21	MS220330-4	.1001		.09593	mg/L	96	90	110			
WG539502CCB3	CCB	04/01/22 17:23				U	mg/L		-0.0006	0.0006			

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		1.962	mg/L	98	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.03	0.03			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.05005		.048	mg/L	96	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	.1001		.095	mg/L	95	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	.5005		.516	mg/L	103	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		.989	mg/L	99	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.03	0.03			
L72166-01AS	AS	04/01/22 18:03	II220330-3	.5005	U	.509	mg/L	102	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	.5005	U	.506	mg/L	101	85	115	1	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		.988	mg/L	99	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.03	0.03			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		.998	mg/L	100	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.03	0.03			

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		2.017	mg/L	101	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.09	0.09			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.1001		.087	mg/L	87	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	.1001		.087	mg/L	87	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	.5005		.52	mg/L	104	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		.989	mg/L	99	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.09	0.09			
L72166-01AS	AS	04/01/22 18:03	II220330-3	.5005	.41	.941	mg/L	106	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	.5005	.41	.927	mg/L	103	85	115	1	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		1.002	mg/L	100	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.09	0.09			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		.998	mg/L	100	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.09	0.09			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539502													
WG539502ICV	ICV	04/01/22 16:22	MS220125-1	.05		.053163	mg/L	106	90	110			
WG539502ICB	ICB	04/01/22 16:24				U	mg/L		-0.00011	0.00011			
WG539502LFB	LFB	04/01/22 16:26	MS220228-9	.05005		.047942	mg/L	96	85	115			
L72166-01AS	AS	04/01/22 16:43	MS220228-9	.5005	U	.45177	mg/L	90	70	130			
WG539502CCV1	CCV	04/01/22 16:45	MS220330-4	.1001		.096506	mg/L	96	90	110			
WG539502CCB1	CCB	04/01/22 16:47				U	mg/L		-0.00015	0.00015			
L72166-01ASD	ASD	04/01/22 16:49	MS220228-9	.5005	U	.45492	mg/L	91	70	130	1	20	
WG539502CCV2	CCV	04/01/22 17:08	MS220330-4	.1001		.096771	mg/L	97	90	110			
WG539502CCB2	CCB	04/01/22 17:09				U	mg/L		-0.00015	0.00015			
WG539502CCV3	CCV	04/01/22 17:21	MS220330-4	.1001		.099386	mg/L	99	90	110			
WG539502CCB3	CCB	04/01/22 17:23				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	100		99.32	mg/L	99	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.3	0.3			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.5003		.52	mg/L	104	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	200.6203		197.9	mg/L	99	1	200			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	67.99026		65.6	mg/L	96	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	50		49.93	mg/L	100	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.3	0.3			
L72166-01AS	AS	04/01/22 18:03	II220330-3	67.99026	45.4	108.8	mg/L	93	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	67.99026	45.4	107.8	mg/L	92	85	115	1	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	50		50.1	mg/L	100	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.3	0.3			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	50		50.19	mg/L	100	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.3	0.3			

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539841													
WG539841ICV	ICV	04/07/22 16:03	WI210503-1	54.89		57.61	mg/L	105	90	110			
WG539841ICB	ICB	04/07/22 16:03				U	mg/L		-1.5	1.5			
WG539841LFB1	LFB	04/07/22 16:04	WI220328-1	29.97		30.81	mg/L	103	90	110			
WG539841CCV1	CCV	04/07/22 16:09	WI220323-1	49.95		51.35	mg/L	103	90	110			
WG539841CCB1	CCB	04/07/22 16:10				.5	mg/L		-1.5	1.5			
WG539841CCV2	CCV	04/07/22 16:15	WI220323-1	49.95		51.24	mg/L	103	90	110			
WG539841CCB2	CCB	04/07/22 16:16				.64	mg/L		-1.5	1.5			
L72167-04DUP	DUP	04/07/22 16:19			44.7	44.49	mg/L				0	20	
WG539841CCV3	CCV	04/07/22 16:21	WI220323-1	49.95		51.86	mg/L	104	90	110			
WG539841CCB3	CCB	04/07/22 16:22				U	mg/L		-1.5	1.5			

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539556													
WG539556ICV	ICV	04/04/22 19:39	II220401-2	2		1.971	mg/L	99	95	105			
WG539556ICB	ICB	04/04/22 19:45				U	mg/L		-0.06	0.06			
WG539556PQV	PQV	04/04/22 19:48	II220329-2	.05005		.048	mg/L	96	70	130			
WG539556SIC	SIC	04/04/22 19:51	II220228-3	.1001		.103	mg/L	103	80	120			
WG539556LFB	LFB	04/04/22 19:58	II220330-3	.5005		.512	mg/L	102	85	115			
L72069-01AS	AS	04/04/22 20:04	II220330-3	.5005	U	.512	mg/L	102	85	115			
L72069-01ASD	ASD	04/04/22 20:07	II220330-3	.5005	U	.51	mg/L	102	85	115	0	20	
WG539556CCV1	CCV	04/04/22 20:30	II220324-1	1		1.002	mg/L	100	90	110			
WG539556CCB1	CCB	04/04/22 20:33				U	mg/L		-0.06	0.06			
WG539556CCV2	CCV	04/04/22 21:08	II220324-1	1		1.002	mg/L	100	90	110			
WG539556CCB2	CCB	04/04/22 21:11				U	mg/L		-0.06	0.06			
WG539556CCV3	CCV	04/04/22 21:30	II220324-1	1		1.009	mg/L	101	90	110			
WG539556CCB3	CCB	04/04/22 21:34				U	mg/L		-0.06	0.06			

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2.01		1.986	mg/L	99	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.06	0.06			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.05005		.045	mg/L	90	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	.1001		.086	mg/L	86	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	.5005		.505	mg/L	101	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1.005		.986	mg/L	98	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.06	0.06			
L72166-01AS	AS	04/01/22 18:03	II220330-3	.5005	U	.498	mg/L	100	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	.5005	U	.485	mg/L	97	85	115	3	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1.005		.992	mg/L	99	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.06	0.06			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1.005		.991	mg/L	99	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.06	0.06			

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		1.99	mg/L	100	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.03	0.03			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.05		.046	mg/L	92	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	.1		.088	mg/L	88	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	.5		.511	mg/L	102	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		1.002	mg/L	100	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.03	0.03			
L72166-01AS	AS	04/01/22 18:03	II220330-3	.5	U	.323	mg/L	65	85	115			M2
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	.5	U	.322	mg/L	64	85	115	0	20	M2
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		1.005	mg/L	101	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.03	0.03			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		1.019	mg/L	102	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.03	0.03			

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG540000													
WG540000ICV	ICV	04/09/22 14:14	WC220408-1	2.008		1.88	mg/L	94	90	110			
WG540000ICB	ICB	04/09/22 14:22				U	mg/L		-0.3	0.3			
WG540000PQV	PQV	04/09/22 14:27	WC220304-2	.3514		.37	mg/L	105	70	130			
WG540000LFB	LFB	04/09/22 14:32	WC220104-2	5.02		4.68	mg/L	93	90	110			
L72130-04AS	AS	04/09/22 14:42	WC220104-2	5.02	1.54	6.17	mg/L	92	90	110			
L72130-04ASD	ASD	04/09/22 14:45	WC220104-2	5.02	1.54	6.14	mg/L	92	90	110	0	20	
L72166-01AS	AS	04/09/22 15:05	WC220104-2	5.02	.82	5.68	mg/L	97	90	110			
L72166-01ASD	ASD	04/09/22 15:09	WC220104-2	5.02	.82	5.62	mg/L	96	90	110	1	20	
WG540000CCV1	CCV	04/09/22 15:16	WC220408-1	2.008		1.87	mg/L	93	90	110			
WG540000CCB1	CCB	04/09/22 15:24				U	mg/L		-0.3	0.3			
WG540000CCV2	CCV	04/09/22 16:04	WC220408-1	2.008		1.85	mg/L	92	90	110			
WG540000CCB2	CCB	04/09/22 16:12				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		1.931	mg/L	97	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.18	0.18			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.150015		.14	mg/L	93	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	200.170015		189.6	mg/L	95	1	200			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	1.0001		1.029	mg/L	103	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		.971	mg/L	97	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.18	0.18			
L72166-01AS	AS	04/01/22 18:03	II220330-3	1.0001	U	1.031	mg/L	103	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	1.0001	U	1.023	mg/L	102	85	115	1	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		.975	mg/L	98	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.18	0.18			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		.984	mg/L	98	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.18	0.18			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539502													
WG539502ICV	ICV	04/01/22 16:22	MS220125-1	.05		.05344	mg/L	107	90	110			
WG539502ICB	ICB	04/01/22 16:24				U	mg/L		-0.00022	0.00022			
WG539502LFB	LFB	04/01/22 16:26	MS220228-9	.0501		.04976	mg/L	99	85	115			
L72166-01AS	AS	04/01/22 16:43	MS220228-9	.501	U	.46378	mg/L	93	70	130			
WG539502CCV1	CCV	04/01/22 16:45	MS220330-4	.2505		.24513	mg/L	98	90	110			
WG539502CCB1	CCB	04/01/22 16:47				U	mg/L		-0.0003	0.0003			
L72166-01ASD	ASD	04/01/22 16:49	MS220228-9	.501	U	.46528	mg/L	93	70	130	0	20	
WG539502CCV2	CCV	04/01/22 17:08	MS220330-4	.2505		.24446	mg/L	98	90	110			
WG539502CCB2	CCB	04/01/22 17:09				U	mg/L		-0.0003	0.0003			
WG539502CCV3	CCV	04/01/22 17:21	MS220330-4	.2505		.24145	mg/L	96	90	110			
WG539502CCB3	CCB	04/01/22 17:23				U	mg/L		-0.0003	0.0003			

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		1.9908	mg/L	100	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.024	0.024			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.03992		.0379	mg/L	95	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	.0998		.1037	mg/L	104	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	.998		.991	mg/L	99	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		.9921	mg/L	99	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.024	0.024			
L72166-01AS	AS	04/01/22 18:03	II220330-3	.998	.15	1.135	mg/L	99	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	.998	.15	1.131	mg/L	98	85	115	0	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		.9907	mg/L	99	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.024	0.024			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		1.005	mg/L	101	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.024	0.024			

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	100		95.56	mg/L	96	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.6	0.6			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	1.0001		1	mg/L	100	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	201.0201		205.4	mg/L	102	1	200			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	49.99828		49.92	mg/L	100	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	50		47.8	mg/L	96	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.6	0.6			
L72166-01AS	AS	04/01/22 18:03	II220330-3	49.99828	24.4	72.94	mg/L	97	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	49.99828	24.4	72.13	mg/L	95	85	115	1	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	50		47.94	mg/L	96	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.6	0.6			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	50		47.47	mg/L	95	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.6	0.6			

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		1.94	mg/L	97	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.03	0.03			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.05005		.047	mg/L	94	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	49.95005		47.35	mg/L	95	1	200			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	.499		.516	mg/L	103	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		.983	mg/L	98	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.03	0.03			
L72166-01AS	AS	04/01/22 18:03	II220330-3	.499	U	.523	mg/L	105	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	.499	U	.52	mg/L	104	85	115	1	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		.983	mg/L	98	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.03	0.03			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		.987	mg/L	99	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.03	0.03			

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539071													
WG539071ICV	ICV	03/28/22 12:18	HG220328-3	.005005		.00496	mg/L	99	95	105			
WG539071ICB	ICB	03/28/22 12:19				U	mg/L		-0.0002	0.0002			
WG539071PQV	PQV	03/28/22 12:20	HG220328-5	.001001		.00097	mg/L	97	70	130			
WG539071LRB	LRB	03/28/22 12:21				U	mg/L		-0.00044	0.00044			
WG539071LFB	LFB	03/28/22 12:22	HG220328-6	.002002		.00204	mg/L	102	85	115			
L72128-03LFM	LFM	03/28/22 12:26	HG220328-6	.002002	U	.002	mg/L	100	85	115			
L72128-03LFMD	LFMD	03/28/22 12:27	HG220328-6	.002002	U	.00191	mg/L	95	85	115	5	20	
WG539071CCV1	CCV	03/28/22 12:30	HG220328-3	.005005		.00525	mg/L	105	90	110			
WG539071CCB1	CCB	03/28/22 12:31				U	mg/L		-0.0002	0.0002			
WG539071CCV2	CCV	03/28/22 12:42	HG220328-3	.005005		.00517	mg/L	103	90	110			
WG539071CCB2	CCB	03/28/22 12:43				U	mg/L		-0.0002	0.0002			
WG539071CCV3	CCV	03/28/22 12:51	HG220328-3	.005005		.00518	mg/L	103	90	110			
WG539071CCB3	CCB	03/28/22 12:53				U	mg/L		-0.0002	0.0002			

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		1.974	mg/L	99	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.024	0.024			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.04004		.0412	mg/L	103	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	.1001		.0998	mg/L	100	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	.5005		.5195	mg/L	104	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		.9923	mg/L	99	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.024	0.024			
L72166-01AS	AS	04/01/22 18:03	II220330-3	.5005	U	.5178	mg/L	103	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	.5005	U	.5088	mg/L	102	85	115	2	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		.9991	mg/L	100	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.024	0.024			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		.9994	mg/L	100	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538955													
WG538955ICV	ICV	03/24/22 22:42	WI220301-7	2.4161		2.343	mg/L	97	90	110			
WG538955ICB	ICB	03/24/22 22:43				U	mg/L		-0.02	0.02			
WG538955PQV	PQV	03/24/22 22:47	WI211001-6	.1		.091	mg/L	91	70	130			
WG538955LFB	LFB	03/24/22 22:49	WI211001-5	2		2.059	mg/L	103	90	110			
WG538955CCV1	CCV	03/24/22 22:58	WI220321-3	2		2.017	mg/L	101	90	110			
WG538955CCB1	CCB	03/24/22 23:01				U	mg/L		-0.02	0.02			
WG538955CCV2	CCV	03/24/22 23:15	WI220321-3	2		2.009	mg/L	100	90	110			
WG538955CCB2	CCB	03/24/22 23:18				U	mg/L		-0.02	0.02			
WG538955CCV3	CCV	03/24/22 23:32	WI220321-3	2		2.001	mg/L	100	90	110			
WG538955CCB3	CCB	03/24/22 23:35				U	mg/L		-0.02	0.02			
L72159-03AS	AS	03/24/22 23:40	WI211001-5	6	2.26	8.297	mg/L	101	90	110			
L72164-01DUP	DUP	03/24/22 23:43			.682	.679	mg/L				0	20	
WG538955CCV4	CCV	03/24/22 23:50	WI220321-3	2		1.987	mg/L	99	90	110			
WG538955CCB4	CCB	03/24/22 23:53				U	mg/L		-0.02	0.02			

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538955													
WG538955ICV	ICV	03/24/22 22:42	WI220301-7	.6089		.628	mg/L	103	90	110			
WG538955ICB	ICB	03/24/22 22:43				U	mg/L		-0.01	0.01			
WG538955PQV	PQV	03/24/22 22:47	WI211001-6	.05		.047	mg/L	94	70	130			
WG538955LFB	LFB	03/24/22 22:49	WI211001-5	1		1.04	mg/L	104	90	110			
WG538955CCV1	CCV	03/24/22 22:58	WI220321-3	1		1.019	mg/L	102	90	110			
WG538955CCB1	CCB	03/24/22 23:01				U	mg/L		-0.01	0.01			
L72159-03AS	AS	03/24/22 23:11	WI211001-5	1	U	1.016	mg/L	102	90	110			
WG538955CCV2	CCV	03/24/22 23:15	WI220321-3	1		1.024	mg/L	102	90	110			
WG538955CCB2	CCB	03/24/22 23:18				U	mg/L		-0.01	0.01			
WG538955CCV3	CCV	03/24/22 23:32	WI220321-3	1		1.025	mg/L	103	90	110			
WG538955CCB3	CCB	03/24/22 23:35				U	mg/L		-0.01	0.01			
L72164-01DUP	DUP	03/24/22 23:43			U	U	mg/L				0	20	RA
WG538955CCV4	CCV	03/24/22 23:50	WI220321-3	1		1.026	mg/L	103	90	110			
WG538955CCB4	CCB	03/24/22 23:53				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	20		19.63	mg/L	98	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.6	0.6			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.9958		1.01	mg/L	101	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	.9958		1.02	mg/L	102	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	99.95169		102.2	mg/L	102	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	10		9.81	mg/L	98	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.6	0.6			
L72166-01AS	AS	04/01/22 18:03	II220330-3	99.95169	3.56	105.6	mg/L	102	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	99.95169	3.56	105.3	mg/L	102	85	115	0	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	10		9.86	mg/L	99	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.6	0.6			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	10		9.93	mg/L	99	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539047													
WG539047PBW	PBW	03/25/22 19:20				U	mg/L		-20	20			
WG539047LCSW	LCSW	03/25/22 19:22	PCN65061	1000		1000	mg/L	100	80	120			
L72166-01DUP	DUP	03/25/22 19:27			1500	1506	mg/L				0	10	
WG539105													
WG539105PBW	PBW	03/28/22 12:22				U	mg/L		-20	20			
WG539105LCSW	LCSW	03/28/22 12:24	PCN65061	1000		982	mg/L	98	80	120			
L72179-01DUP	DUP	03/28/22 12:53			230	232	mg/L				1	10	

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539779													
WG539779ICV	ICV	04/06/22 20:17	MS220401-7	.05		.05104	mg/L	102	90	110			
WG539779ICB	ICB	04/06/22 20:19				U	mg/L		-0.00022	0.00022			
WG539779LFB	LFB	04/06/22 20:21	MS220401-2	.05		.05149	mg/L	103	85	115			
WG539779CCV1	CCV	04/06/22 20:30	MS220330-4	.25		.24991	mg/L	100	90	110			
WG539779CCB1	CCB	04/06/22 20:32				U	mg/L		-0.0003	0.0003			
L72170-01AS	AS	04/06/22 20:39	MS220401-2	.05	U	.04582	mg/L	92	70	130			
L72170-01ASD	ASD	04/06/22 20:41	MS220401-2	.05	U	.05023	mg/L	100	70	130	9	20	
WG539779CCV2	CCV	04/06/22 20:52	MS220330-4	.25		.24716	mg/L	99	90	110			
WG539779CCB2	CCB	04/06/22 20:55				U	mg/L		-0.0003	0.0003			
WG539779CCV3	CCV	04/06/22 21:17	MS220330-4	.25		.24804	mg/L	99	90	110			
WG539779CCB3	CCB	04/06/22 21:19				U	mg/L		-0.0003	0.0003			
WG539779CCV4	CCV	04/06/22 21:21	MS220330-4	.25		.2478	mg/L	99	90	110			
WG539779CCB4	CCB	04/06/22 21:22				U	mg/L		-0.0003	0.0003			

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	100		99.12	mg/L	99	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.6	0.6			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	1.0053		1.04	mg/L	103	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	1.0053		1.07	mg/L	106	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	100.0039		102.6	mg/L	103	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	50		49.73	mg/L	99	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.6	0.6			
L72166-01AS	AS	04/01/22 18:03	II220330-3	100.0039	461	546.9	mg/L	86	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	100.0039	461	539.3	mg/L	78	85	115	1	20	M3
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	50		49.98	mg/L	100	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.6	0.6			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	50		50.6	mg/L	101	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539671													
WG539671ICB	ICB	04/05/22 8:37				U	mg/L		-3	3			
WG539671ICV	ICV	04/05/22 8:37	WI220331-10	20.46		18.5	mg/L	90	90	110			
WG539671CCV1	CCV	04/05/22 12:59	WI220331-11	24.875		25.8	mg/L	104	90	110			
WG539671CCB1	CCB	04/05/22 12:59				U	mg/L		-3	3			
WG539671LFB	LFB	04/05/22 12:59	WI211230-5	9.95		10.2	mg/L	103	90	110			
WG539671CCV2	CCV	04/05/22 13:01	WI220331-11	24.875		25.5	mg/L	103	90	110			
WG539671CCB2	CCB	04/05/22 13:01				U	mg/L		-3	3			
WG539671CCV3	CCV	04/05/22 13:03	WI220331-11	24.875		25.5	mg/L	103	90	110			
WG539671CCB3	CCB	04/05/22 13:03				U	mg/L		-3	3			
WG539671CCV4	CCV	04/05/22 13:05	WI220331-11	24.875		26.1	mg/L	105	90	110			
WG539671CCB4	CCB	04/05/22 13:05				U	mg/L		-3	3			
WG539671CCV5	CCV	04/05/22 13:07	WI220331-11	24.875		25.7	mg/L	103	90	110			
WG539671CCB5	CCB	04/05/22 13:07				U	mg/L		-3	3			
WG539671CCV6	CCV	04/05/22 13:08	WI220331-11	24.875		25.5	mg/L	103	90	110			
WG539671CCB6	CCB	04/05/22 13:08				U	mg/L		-3	3			
WG539671CCV7	CCV	04/05/22 13:11	WI220331-11	24.875		25.3	mg/L	102	90	110			
WG539671CCB7	CCB	04/05/22 13:11				U	mg/L		-3	3			
WG539671CCV8	CCV	04/05/22 13:38	WI220331-11	24.875		25.5	mg/L	103	90	110			
WG539671CCB8	CCB	04/05/22 13:38				U	mg/L		-3	3			
L72166-01DUP	DUP	04/05/22 13:38			353	333.9	mg/L				6	20	
L72166-02AS	AS	04/05/22 13:39	SO4TURB10X	10	234	245.2	mg/L	112	90	110			M3
WG539671CCV9	CCV	04/05/22 13:39	WI220331-11	24.875		25.2	mg/L	101	90	110			
WG539671CCB9	CCB	04/05/22 13:39				U	mg/L		-3	3			

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		1.994	mg/L	100	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.015	0.015			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.025025		.024	mg/L	96	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	.1001		.092	mg/L	92	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	.5005		.5228	mg/L	104	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		.994	mg/L	99	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.03	0.03			
L72166-01AS	AS	04/01/22 18:03	II220330-3	.5005	U	.513	mg/L	102	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	.5005	U	.515	mg/L	103	85	115	0	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		1.002	mg/L	100	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.03	0.03			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		1	mg/L	100	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L72166***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539469													
WG539469ICV	ICV	04/01/22 16:46	II220311-1	2		1.898	mg/L	95	95	105			
WG539469ICB	ICB	04/01/22 16:52				U	mg/L		-0.06	0.06			
WG539469PQV	PQV	04/01/22 16:55	II220329-2	.05015		.043	mg/L	86	70	130			
WG539469SIC	SIC	04/01/22 16:58	II220228-3	.1003		.087	mg/L	87	80	120			
WG539469LFB	LFB	04/01/22 17:05	II220330-3	.50045		.511	mg/L	102	85	115			
WG539469CCV1	CCV	04/01/22 17:35	II220228-4	1		.958	mg/L	96	90	110			
WG539469CCB1	CCB	04/01/22 17:38				U	mg/L		-0.06	0.06			
L72166-01AS	AS	04/01/22 18:03	II220330-3	.50045	U	.499	mg/L	100	85	115			
L72166-01ASD	ASD	04/01/22 18:06	II220330-3	.50045	U	.495	mg/L	99	85	115	1	20	
WG539469CCV2	CCV	04/01/22 18:12	II220228-4	1		.961	mg/L	96	90	110			
WG539469CCB2	CCB	04/01/22 18:15				U	mg/L		-0.06	0.06			
WG539469CCV3	CCV	04/01/22 18:34	II220228-4	1		.955	mg/L	96	90	110			
WG539469CCB3	CCB	04/01/22 18:37				U	mg/L		-0.06	0.06			

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

GCC Rio Grande

ACZ Project ID: ***L72166***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72166-01	WG539502	Arsenic, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
		Cadmium, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
	WG539469	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG539502	Lead, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
	WG538955	Nitrite as N	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539047	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG539779	Selenium, dissolved	M200.8 ICP-MS	DD	Sample required dilution due to matrix color or odor.
	WG539469	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG539671	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG539236	Total Alkalinity	SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
L72166-02	WG539469	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG538955	Nitrite as N	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539469	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG539671	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L72166***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L72166
Date Received: 03/24/2022 10:54
Received By:
Date Printed: 3/25/2022

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
6975	4.4	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L72166
Date Received: 03/24/2022 10:54
Received By:
Date Printed: 3/25/2022

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc. L72166

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road Pueblo CO 81004
Telephone: 719-647-6861

Copy of Report to:

Name: Landon Beck
Company: RHS
E-mail: lbeck@resourcehydrogeologic.com
Telephone:

Invoice to:

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road Pueblo CO 81004
Telephone: 719-647-6861

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes [ ] No [X]

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Amy Veek **Sampler's Site Information** State CO Zip code 81004 Time Zone MDT

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material? [ ]

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	GW-Compliance							
MW-11	3/23/2022 10:10	GW	3	X							
MW-13	3/23/2022 16:24	GW	3	X							

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	3/23/2022 17:06	[signature]	3/24/22 16:54

L72166 Chain of Custod

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

April 14, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L72232

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 29, 2022. This project has been assigned to ACZ's project number, L72232. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L72232. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after April 14, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Bill Lane has reviewed and approved this report

GCC Rio Grande
Project ID: 105495
Sample ID: MW-8

ACZ Sample ID: ***L72232-01***
Date Sampled: *03/28/22 09:52*
Date Received: *03/29/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	04/05/22 15:10	wtc
Arsenic, dissolved	M200.8 ICP-MS	2	0.00279			mg/L	0.0004	0.002	04/06/22 17:33	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	04/05/22 15:10	wtc
Boron, dissolved	M200.7 ICP	2	0.603			mg/L	0.06	0.2	04/05/22 15:10	wtc
Cadmium, dissolved	M200.8 ICP-MS	2	<0.0001	U		mg/L	0.0001	0.0005	04/06/22 17:33	mfm
Calcium, dissolved	M200.7 ICP	2	59.8			mg/L	0.2	1	04/05/22 15:10	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	04/05/22 15:10	wtc
Cobalt, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	04/05/22 15:10	wtc
Copper, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	04/05/22 15:10	wtc
Iron, dissolved	M200.7 ICP	2	<0.12	U		mg/L	0.12	0.3	04/05/22 15:10	wtc
Lead, dissolved	M200.8 ICP-MS	2	0.00036	B		mg/L	0.0002	0.001	04/06/22 17:33	mfm
Lithium, dissolved	M200.7 ICP	2	0.258			mg/L	0.016	0.08	04/05/22 15:10	wtc
Magnesium, dissolved	M200.7 ICP	2	19.7			mg/L	0.4	2	04/05/22 15:10	wtc
Manganese, dissolved	M200.7 ICP	2	0.195			mg/L	0.02	0.1	04/05/22 15:10	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/30/22 14:49	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	04/05/22 15:10	wtc
Potassium, dissolved	M200.7 ICP	2	4.32			mg/L	0.4	2	04/05/22 15:10	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.0005	04/06/22 17:33	mfm
Sodium, dissolved	M200.7 ICP	2	805			mg/L	0.4	2	04/05/22 15:10	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	04/05/22 15:10	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U	*	mg/L	0.04	0.1	04/05/22 15:10	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1020		*	mg/L	2	20	03/30/22 0:00	jck
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	03/30/22 0:00	jck
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	03/30/22 0:00	jck
Total Alkalinity		1	1020		*	mg/L	2	20	03/30/22 0:00	jck
Chloride	SM4500Cl-E	5	204		*	mg/L	2.5	10	04/12/22 8:34	bls
Fluoride	SM4500F-C	1	0.92		*	mg/L	0.15	0.35	04/13/22 12:33	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.029	B		mg/L	0.02	0.1	04/14/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.041	B	*	mg/L	0.02	0.1	03/29/22 23:49	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.012	B	*	mg/L	0.01	0.05	03/29/22 23:49	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	3040		*	mg/L	40	80	03/29/22 15:24	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	1090		*	mg/L	120	600	03/29/22 21:53	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L72232-02***
Date Sampled: *03/28/22 11:26*
Date Received: *03/29/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	0.138	B		mg/L	0.05	0.25	04/05/22 15:13	wtc
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	04/06/22 17:38	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	04/05/22 15:13	wtc
Boron, dissolved	M200.7 ICP	1	0.900			mg/L	0.03	0.1	04/05/22 15:13	wtc
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	04/06/22 17:38	mfm
Calcium, dissolved	M200.7 ICP	1	367			mg/L	0.1	0.5	04/05/22 15:13	wtc
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	04/05/22 15:13	wtc
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	04/05/22 15:13	wtc
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	04/05/22 15:13	wtc
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	04/05/22 15:13	wtc
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	04/06/22 17:38	mfm
Lithium, dissolved	M200.7 ICP	1	0.293			mg/L	0.008	0.04	04/05/22 15:13	wtc
Magnesium, dissolved	M200.7 ICP	1	178			mg/L	0.2	1	04/05/22 15:13	wtc
Manganese, dissolved	M200.7 ICP	1	0.609			mg/L	0.01	0.05	04/05/22 15:13	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/30/22 14:52	mlh
Nickel, dissolved	M200.7 ICP	1	0.0219	B		mg/L	0.008	0.04	04/05/22 15:13	wtc
Potassium, dissolved	M200.7 ICP	1	8.08			mg/L	0.2	1	04/05/22 15:13	wtc
Selenium, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.00125	04/06/22 17:38	mfm
Sodium, dissolved	M200.7 ICP	1	540			mg/L	0.2	1	04/05/22 15:13	wtc
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	04/05/22 15:13	wtc
Zinc, dissolved	M200.7 ICP	1	<0.02	U	*	mg/L	0.02	0.05	04/05/22 15:13	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	223		*	mg/L	2	20	03/30/22 0:00	jck
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	03/30/22 0:00	jck
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	03/30/22 0:00	jck
Total Alkalinity		1	223		*	mg/L	2	20	03/30/22 0:00	jck
Chloride	SM4500Cl-E	1	43.6		*	mg/L	0.5	2	04/12/22 8:34	bls
Fluoride	SM4500F-C	1	0.49		*	mg/L	0.15	0.35	04/13/22 12:43	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.513			mg/L	0.02	0.1	04/14/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	1.38		*	mg/L	0.02	0.1	03/29/22 23:50	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.867		*	mg/L	0.01	0.05	03/29/22 23:50	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4420		*	mg/L	40	80	03/31/22 15:54	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3200		*	mg/L	120	600	03/29/22 21:53	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L72232-03***
Date Sampled: *03/28/22 11:02*
Date Received: *03/29/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	04/05/22 19:11	wtc
Arsenic, dissolved	M200.8 ICP-MS	5	0.00289	B		mg/L	0.001	0.005	04/06/22 17:40	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	04/05/22 19:11	wtc
Boron, dissolved	M200.7 ICP	5	0.988			mg/L	0.15	0.5	04/05/22 19:11	wtc
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	04/06/22 17:40	mfm
Calcium, dissolved	M200.7 ICP	5	430			mg/L	0.5	2.5	04/05/22 19:11	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	04/05/22 19:11	wtc
Cobalt, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	04/05/22 19:11	wtc
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	04/05/22 19:11	wtc
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	04/05/22 19:11	wtc
Lead, dissolved	M200.8 ICP-MS	5	0.00055	B		mg/L	0.0005	0.0025	04/06/22 17:40	mfm
Lithium, dissolved	M200.7 ICP	5	0.310			mg/L	0.04	0.2	04/05/22 19:11	wtc
Magnesium, dissolved	M200.7 ICP	5	198			mg/L	1	5	04/05/22 19:11	wtc
Manganese, dissolved	M200.7 ICP	5	0.686			mg/L	0.05	0.25	04/05/22 19:11	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/30/22 14:53	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	04/05/22 19:11	wtc
Potassium, dissolved	M200.7 ICP	5	8.85			mg/L	1	5	04/05/22 19:11	wtc
Selenium, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.00125	04/06/22 17:40	mfm
Sodium, dissolved	M200.7 ICP	5	615		*	mg/L	1	5	04/05/22 19:11	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	04/05/22 19:11	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U	*	mg/L	0.1	0.25	04/06/22 13:46	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	587		*	mg/L	2	20	03/30/22 0:00	jck
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	03/30/22 0:00	jck
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	03/30/22 0:00	jck
Total Alkalinity		1	587		*	mg/L	2	20	03/30/22 0:00	jck
Chloride	SM4500Cl-E	5	289		*	mg/L	2.5	10	04/12/22 8:35	bls
Fluoride	SM4500F-C	1	0.99		*	mg/L	0.15	0.35	04/13/22 12:46	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	04/14/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U	*	mg/L	0.02	0.1	03/29/22 23:51	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	03/29/22 23:51	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4220		*	mg/L	40	80	03/29/22 15:31	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	2380		*	mg/L	120	600	03/29/22 21:53	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L72232-04***
Date Sampled: *03/28/22 10:23*
Date Received: *03/29/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	04/05/22 19:14	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00464			mg/L	0.0002	0.001	04/06/22 17:42	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	04/05/22 19:14	wtc
Boron, dissolved	M200.7 ICP	1	0.604			mg/L	0.03	0.1	04/05/22 19:14	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	04/06/22 17:42	mfm
Calcium, dissolved	M200.7 ICP	1	10.8			mg/L	0.1	0.5	04/05/22 19:14	wtc
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	04/05/22 19:14	wtc
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	04/05/22 19:14	wtc
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	04/05/22 19:14	wtc
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	04/05/22 19:14	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/06/22 17:42	mfm
Lithium, dissolved	M200.7 ICP	1	0.108			mg/L	0.008	0.04	04/05/22 19:14	wtc
Magnesium, dissolved	M200.7 ICP	1	3.12			mg/L	0.2	1	04/05/22 19:14	wtc
Manganese, dissolved	M200.7 ICP	1	0.014	B		mg/L	0.01	0.05	04/05/22 19:14	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/30/22 14:54	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	04/05/22 19:14	wtc
Potassium, dissolved	M200.7 ICP	1	2.22			mg/L	0.2	1	04/05/22 19:14	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.0005	04/07/22 16:37	mfm
Sodium, dissolved	M200.7 ICP	1	488		*	mg/L	0.2	1	04/05/22 19:14	wtc
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	04/05/22 19:14	wtc
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	04/06/22 13:49	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	380		*	mg/L	2	20	03/30/22 0:00	jck
Carbonate as CaCO3		1	28.9		*	mg/L	2	20	03/30/22 0:00	jck
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	03/30/22 0:00	jck
Total Alkalinity		1	409		*	mg/L	2	20	03/30/22 0:00	jck
Chloride	SM4500Cl-E	25	374		*	mg/L	12.5	50	04/12/22 8:35	bls
Fluoride	SM4500F-C	1	2.52		*	mg/L	0.15	0.35	04/13/22 12:50	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	04/14/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U	*	mg/L	0.02	0.1	03/29/22 23:52	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.012	B	*	mg/L	0.01	0.05	03/29/22 23:52	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	1360		*	mg/L	20	40	03/29/22 15:33	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	129		*	mg/L	5	25	03/29/22 21:40	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-14

ACZ Sample ID: ***L72232-05***
Date Sampled: *03/28/22 13:15*
Date Received: *03/29/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U	*	mg/L	0.1	0.5	04/05/22 19:24	wtc
Arsenic, dissolved	M200.8 ICP-MS	2	0.00533			mg/L	0.0004	0.002	04/06/22 17:44	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.1	04/05/22 19:24	wtc
Boron, dissolved	M200.7 ICP	5	1.46			mg/L	0.15	0.5	04/06/22 13:58	wtc
Cadmium, dissolved	M200.8 ICP-MS	2	<0.0001	U		mg/L	0.0001	0.0005	04/06/22 17:44	mfm
Calcium, dissolved	M200.7 ICP	5	84.8			mg/L	0.5	2.5	04/06/22 13:58	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U	*	mg/L	0.04	0.1	04/05/22 19:24	wtc
Cobalt, dissolved	M200.7 ICP	2	<0.04	U	*	mg/L	0.04	0.1	04/05/22 19:24	wtc
Copper, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.1	04/05/22 19:24	wtc
Iron, dissolved	M200.7 ICP	2	<0.12	U	*	mg/L	0.12	0.3	04/05/22 19:24	wtc
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	04/06/22 17:44	mfm
Lithium, dissolved	M200.7 ICP	5	0.319			mg/L	0.04	0.2	04/06/22 13:58	wtc
Magnesium, dissolved	M200.7 ICP	5	23.3			mg/L	1	5	04/06/22 13:58	wtc
Manganese, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.1	04/05/22 19:24	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	03/30/22 14:55	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U	*	mg/L	0.016	0.08	04/05/22 19:24	wtc
Potassium, dissolved	M200.7 ICP	5	7.14			mg/L	1	5	04/06/22 13:58	wtc
Selenium, dissolved	M200.8 ICP-MS	2	0.00980			mg/L	0.0002	0.0005	04/06/22 17:44	mfm
Sodium, dissolved	M200.7 ICP	5	1260		*	mg/L	1	5	04/06/22 13:58	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.05	04/05/22 19:24	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U	*	mg/L	0.1	0.25	04/06/22 13:58	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	800		*	mg/L	2	20	03/30/22 0:00	jck
Carbonate as CaCO3		1	65.9		*	mg/L	2	20	03/30/22 0:00	jck
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	03/30/22 0:00	jck
Total Alkalinity		1	866		*	mg/L	2	20	03/30/22 0:00	jck
Chloride	SM4500Cl-E	25	473		*	mg/L	12.5	50	04/12/22 8:36	bls
Fluoride	SM4500F-C	1	2.35		*	mg/L	0.15	0.35	04/13/22 12:53	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	04/14/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U	*	mg/L	0.02	0.1	03/29/22 23:54	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	03/29/22 23:54	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	2300		*	mg/L	20	40	03/29/22 15:35	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	25	353		*	mg/L	25	125	03/29/22 21:50	mjj1

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539236													
WG539236PBW1	PBW	03/29/22 18:31				3	mg/L		-20	20			
WG539236LCSW3	LCSW	03/29/22 18:49	WC220328-1	820.0001		789.9	mg/L	96	90	110			
WG539236PQV2	PQV	03/29/22 18:58	WC210630-2	20		24.1	mg/L	121	50	150			
WG539236LCSW6	LCSW	03/29/22 22:29	WC220328-1	820.0001		838	mg/L	102	90	110			
WG539236PBW2	PBW	03/29/22 22:35				5.1	mg/L		-20	20			
L72248-01DUP	DUP	03/30/22 2:14			262	280.4	mg/L				7	20	
WG539236LCSW9	LCSW	03/30/22 2:32	WC220328-1	820.0001		807.5	mg/L	98	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.959	mg/L	98	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.15	0.15			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.2502		.244	mg/L	98	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	200.4102		185.4	mg/L	93	1	200			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	1.0008		.942	mg/L	94	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.962	mg/L	96	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.15	0.15			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		.985	mg/L	99	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.15	0.15			
L72231-03AS	AS	04/05/22 15:01	II220330-3	1.0008	.16	1.074	mg/L	91	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	1.0008	.16	1.081	mg/L	92	85	115	1	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		.984	mg/L	98	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.15	0.15			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		1.934	mg/L	97	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.15	0.15			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.2502		.25	mg/L	100	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	200.4102		200.5	mg/L	100	1	200			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	1.0008		1.01	mg/L	101	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	1.0008	U	1.032	mg/L	103	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	1.0008	U	1.04	mg/L	104	85	115	1	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.972	mg/L	97	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.15	0.15			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		.987	mg/L	99	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.15	0.15			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		.978	mg/L	98	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.15	0.15			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539810													
WG539810ICV	ICV	04/06/22 17:04	MS220401-7	.05		.05255	mg/L	105	90	110			
WG539810ICB	ICB	04/06/22 17:06				.00021	mg/L		-0.00044	0.00044			
WG539810LFB	LFB	04/06/22 17:08	MS220401-2	.05005		.04983	mg/L	100	85	115			
WG539810CCV1	CCV	04/06/22 17:27	MS220330-4	.1001		.09984	mg/L	100	90	110			
WG539810CCB1	CCB	04/06/22 17:29				.00037	mg/L		-0.0006	0.0006			
L72232-01AS	AS	04/06/22 17:35	MS220401-2	.1001	.00279	.09849	mg/L	96	70	130			
L72232-01ASD	ASD	04/06/22 17:37	MS220401-2	.1001	.00279	.09967	mg/L	97	70	130	1	20	
WG539810CCV2	CCV	04/06/22 17:50	MS220330-4	.1001		.10131	mg/L	101	90	110			
WG539810CCB2	CCB	04/06/22 17:52				U	mg/L		-0.0006	0.0006			
L72257-03AS	AS	04/06/22 17:55	MS220401-2	.05005	.0131	.06126	mg/L	96	70	130			
L72257-03ASD	ASD	04/06/22 17:57	MS220401-2	.05005	.0131	.0576	mg/L	89	70	130	6	20	
WG539810CCV3	CCV	04/06/22 18:03	MS220330-4	.1001		.09793	mg/L	98	90	110			
WG539810CCB3	CCB	04/06/22 18:05				U	mg/L		-0.0006	0.0006			

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.956	mg/L	98	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.03	0.03			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.05005		.053	mg/L	106	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.1001		.091	mg/L	91	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.5005		.466	mg/L	93	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.976	mg/L	98	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.03	0.03			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		.988	mg/L	99	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.03	0.03			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.5005	U	.475	mg/L	95	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.5005	U	.476	mg/L	95	85	115	0	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		.989	mg/L	99	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.03	0.03			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		1.941	mg/L	97	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.03	0.03			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.05005		.052	mg/L	104	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	.1001		.099	mg/L	99	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	.5005		.51	mg/L	102	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	.5005	U	.505	mg/L	101	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	.5005	U	.506	mg/L	101	85	115	0	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.977	mg/L	98	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.03	0.03			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		.993	mg/L	99	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.03	0.03			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		.993	mg/L	99	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		2	mg/L	100	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.09	0.09			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.1001		.099	mg/L	99	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.1001		.088	mg/L	88	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.5005		.474	mg/L	95	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.998	mg/L	100	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.09	0.09			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		1.023	mg/L	102	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.09	0.09			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.5005	U	.5	mg/L	100	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.5005	U	.511	mg/L	102	85	115	2	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		.999	mg/L	100	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.09	0.09			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		2.009	mg/L	100	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.09	0.09			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.1001		.097	mg/L	97	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	.1001		.09	mg/L	90	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	.5005		.532	mg/L	106	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	.5005	.604	1.089	mg/L	97	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	.5005	.604	1.067	mg/L	93	85	115	2	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.996	mg/L	100	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.09	0.09			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		1.029	mg/L	103	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.09	0.09			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		1.034	mg/L	103	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.09	0.09			
WG539763													
WG539763ICV	ICV	04/06/22 13:21	II220401-2	2		1.991	mg/L	100	95	105			
WG539763ICB	ICB	04/06/22 13:27				U	mg/L		-0.09	0.09			
WG539763PQV	PQV	04/06/22 13:30	II220329-2	.1001		.109	mg/L	109	70	130			
WG539763SIC	SIC	04/06/22 13:33	II220405-1	.1001		.108	mg/L	108	80	120			
WG539763LFB	LFB	04/06/22 13:40	II220330-3	.5005		.529	mg/L	106	85	115			
L72232-04AS	AS	04/06/22 13:52	II220330-3	.5005	.603	1.068	mg/L	93	85	115			
L72232-04ASD	ASD	04/06/22 13:55	II220330-3	.5005	.603	1.112	mg/L	102	85	115	4	20	
WG539763CCV1	CCV	04/06/22 14:10	II220228-4	1		1.025	mg/L	103	90	110			
WG539763CCB1	CCB	04/06/22 14:13				U	mg/L		-0.09	0.09			
WG539763CCV2	CCV	04/06/22 14:47	II220228-4	1		1.01	mg/L	101	90	110			
WG539763CCB2	CCB	04/06/22 14:50				U	mg/L		-0.09	0.09			
WG539763CCV3	CCV	04/06/22 15:09	II220228-4	1		1.005	mg/L	101	90	110			
WG539763CCB3	CCB	04/06/22 15:12				U	mg/L		-0.09	0.09			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539810													
WG539810ICV	ICV	04/06/22 17:04	MS220401-7	.05		.052731	mg/L	105	90	110			
WG539810ICB	ICB	04/06/22 17:06				U	mg/L		-0.00011	0.00011			
WG539810LFB	LFB	04/06/22 17:08	MS220401-2	.05005		.049236	mg/L	98	85	115			
WG539810CCV1	CCV	04/06/22 17:27	MS220330-4	.1001		.097223	mg/L	97	90	110			
WG539810CCB1	CCB	04/06/22 17:29				U	mg/L		-0.00015	0.00015			
L72232-01AS	AS	04/06/22 17:35	MS220401-2	.1001	U	.094471	mg/L	94	70	130			
L72232-01ASD	ASD	04/06/22 17:37	MS220401-2	.1001	U	.095469	mg/L	95	70	130	1	20	
WG539810CCV2	CCV	04/06/22 17:50	MS220330-4	.1001		.098895	mg/L	99	90	110			
WG539810CCB2	CCB	04/06/22 17:52				U	mg/L		-0.00015	0.00015			
L72257-03AS	AS	04/06/22 17:55	MS220401-2	.05005	.000539	.049119	mg/L	97	70	130			
L72257-03ASD	ASD	04/06/22 17:57	MS220401-2	.05005	.000539	.046453	mg/L	92	70	130	6	20	
WG539810CCV3	CCV	04/06/22 18:03	MS220330-4	.1001		.096079	mg/L	96	90	110			
WG539810CCB3	CCB	04/06/22 18:05				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	100		98.92	mg/L	99	95	105			
WG539680ICB	ICB	04/05/22 13:34				.13	mg/L		-0.3	0.3			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.5003		.56	mg/L	112	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	200.6203		179.7	mg/L	90	1	200			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	67.99026		58.52	mg/L	86	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	50		48.75	mg/L	98	90	110			
WG539680CCB1	CCB	04/05/22 14:20				.16	mg/L		-0.3	0.3			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	50		49.13	mg/L	98	90	110			
WG539680CCB2	CCB	04/05/22 14:58				.16	mg/L		-0.3	0.3			
L72231-03AS	AS	04/05/22 15:01	II220330-3	67.99026	13	71.13	mg/L	85	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	67.99026	13	71.63	mg/L	86	85	115	1	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	50		48.16	mg/L	96	90	110			
WG539680CCB3	CCB	04/05/22 15:19				.24	mg/L		-0.3	0.3			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	100		99.02	mg/L	99	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.3	0.3			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.5003		.64	mg/L	128	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	200.6203		197.7	mg/L	99	1	200			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	67.99026		64.25	mg/L	94	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	67.99026	10.8	73.76	mg/L	93	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	67.99026	10.8	73.79	mg/L	93	85	115	0	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	50		49.36	mg/L	99	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.3	0.3			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	50		50.58	mg/L	101	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.3	0.3			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	50		50.58	mg/L	101	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.3	0.3			
WG539763													
WG539763ICV	ICV	04/06/22 13:21	II220401-2	100		99.33	mg/L	99	95	105			
WG539763ICB	ICB	04/06/22 13:27				.11	mg/L		-0.3	0.3			
WG539763PQV	PQV	04/06/22 13:30	II220329-2	.5003		.52	mg/L	104	70	130			
WG539763SIC	SIC	04/06/22 13:33	II220405-1	200.6203		200.1	mg/L	100	1	200			
WG539763LFB	LFB	04/06/22 13:40	II220330-3	67.99026		62.96	mg/L	93	85	115			
L72232-04AS	AS	04/06/22 13:52	II220330-3	67.99026	10.7	74.25	mg/L	93	85	115			
L72232-04ASD	ASD	04/06/22 13:55	II220330-3	67.99026	10.7	75.23	mg/L	95	85	115	1	20	
WG539763CCV1	CCV	04/06/22 14:10	II220228-4	50		50.19	mg/L	100	90	110			
WG539763CCB1	CCB	04/06/22 14:13				U	mg/L		-0.3	0.3			
WG539763CCV2	CCV	04/06/22 14:47	II220228-4	50		50.11	mg/L	100	90	110			
WG539763CCB2	CCB	04/06/22 14:50				.11	mg/L		-0.3	0.3			
WG539763CCV3	CCV	04/06/22 15:09	II220228-4	50		48.64	mg/L	97	90	110			
WG539763CCB3	CCB	04/06/22 15:12				.14	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG540080													
WG540080ICV	ICV	04/12/22 8:32	WI210503-1	54.89		56.27	mg/L	103	90	110			
WG540080ICB	ICB	04/12/22 8:33				.78	mg/L		-1.5	1.5			
WG540080LFB1	LFB	04/12/22 8:33	WI220328-1	29.97		30.55	mg/L	102	90	110			
L72232-04AS	AS	04/12/22 8:36	WI220328-1	749.25	374	1005.75	mg/L	84	90	110			M2
L72232-05DUP	DUP	04/12/22 8:37			473	476.35	mg/L				1	20	
WG540080CCV1	CCV	04/12/22 8:38	WI220323-1	49.95		46.28	mg/L	93	90	110			
WG540080CCB1	CCB	04/12/22 8:39				.89	mg/L		-1.5	1.5			
WG540080CCV2	CCV	04/12/22 8:44	WI220323-1	49.95		46.84	mg/L	94	90	110			
WG540080CCB2	CCB	04/12/22 8:45				.95	mg/L		-1.5	1.5			
WG540080LFB2	LFB	04/12/22 8:48	WI220328-1	29.97		31.74	mg/L	106	90	110			
WG540080CCV3	CCV	04/12/22 8:51	WI220323-1	49.95		45.48	mg/L	91	90	110			
WG540080CCB3	CCB	04/12/22 8:51				.88	mg/L		-1.5	1.5			
WG540080CCV4	CCV	04/12/22 8:55	WI220323-1	49.95		46.4	mg/L	93	90	110			
WG540080CCB4	CCB	04/12/22 8:56				1.2	mg/L		-1.5	1.5			

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.948	mg/L	97	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.06	0.06			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.05005		.048	mg/L	96	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.1001		.08	mg/L	80	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.5005		.454	mg/L	91	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.961	mg/L	96	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.06	0.06			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		.982	mg/L	98	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.06	0.06			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.5005	U	.467	mg/L	93	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.5005	U	.474	mg/L	95	85	115	1	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		.967	mg/L	97	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.06	0.06			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		1.957	mg/L	98	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.06	0.06			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.05005		.046	mg/L	92	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	.1001		.083	mg/L	83	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	.5005		.512	mg/L	102	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	.5005	U	.51	mg/L	102	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	.5005	U	.501	mg/L	100	85	115	2	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.984	mg/L	98	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.06	0.06			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		1.02	mg/L	102	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.06	0.06			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		1.023	mg/L	102	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.06	0.06			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2.01		1.96	mg/L	98	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.06	0.06			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.05005		.048	mg/L	96	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.1001		.081	mg/L	81	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.5005		.452	mg/L	90	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1.005		.953	mg/L	95	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.06	0.06			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1.005		.985	mg/L	98	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.06	0.06			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.5005	U	.47	mg/L	94	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.5005	U	.473	mg/L	95	85	115	1	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1.005		.957	mg/L	95	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.06	0.06			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2.01		1.968	mg/L	98	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.06	0.06			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.05005		.044	mg/L	88	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	.1001		.086	mg/L	86	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	.5005		.505	mg/L	101	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	.5005	U	.5	mg/L	100	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	.5005	U	.495	mg/L	99	85	115	1	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1.005		.988	mg/L	98	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.06	0.06			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1.005		1.027	mg/L	102	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.06	0.06			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1.005		1.034	mg/L	103	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.06	0.06			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.993	mg/L	100	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.03	0.03			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.05		.051	mg/L	102	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.1		.08	mg/L	80	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.5		.462	mg/L	92	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.993	mg/L	99	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.03	0.03			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		.994	mg/L	99	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.03	0.03			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.5	U	.478	mg/L	96	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.5	U	.478	mg/L	96	85	115	0	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		1	mg/L	100	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.03	0.03			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		1.98	mg/L	99	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.03	0.03			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.05		.049	mg/L	98	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	.1		.084	mg/L	84	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	.5		.509	mg/L	102	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	.5	U	.508	mg/L	102	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	.5	U	.513	mg/L	103	85	115	1	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.993	mg/L	99	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.03	0.03			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		1.007	mg/L	101	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.03	0.03			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		1.004	mg/L	100	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.03	0.03			

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG540219													
WG540219ICV	ICV	04/13/22 10:30	WC220408-1	2.008		1.99	mg/L	99	90	110			
WG540219ICB	ICB	04/13/22 10:36				U	mg/L		-0.3	0.3			
WG540219PQV	PQV	04/13/22 10:40	WC220411-1	.3514		.37	mg/L	105	70	130			
WG540219LFB	LFB	04/13/22 10:43	WC220104-2	5.02		4.91	mg/L	98	90	110			
WG540219CCV1	CCV	04/13/22 11:33	WC220408-1	2.008		1.99	mg/L	99	90	110			
WG540219CCB1	CCB	04/13/22 11:41				U	mg/L		-0.3	0.3			
L72232-01AS	AS	04/13/22 12:36	WC220104-2	5.02	.92	5.77	mg/L	97	90	110			
L72232-01ASD	ASD	04/13/22 12:39	WC220104-2	5.02	.92	5.82	mg/L	98	90	110	1	20	
WG540219CCV2	CCV	04/13/22 12:57	WC220408-1	2.008		2.04	mg/L	102	90	110			
WG540219CCB2	CCB	04/13/22 13:05				U	mg/L		-0.3	0.3			
WG540219CCV3	CCV	04/13/22 13:28	WC220408-1	2.008		1.99	mg/L	99	90	110			
WG540219CCB3	CCB	04/13/22 13:36				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.923	mg/L	96	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.18	0.18			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.150015		.144	mg/L	96	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	200.410015		172.7	mg/L	86	1	200			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	1.0001		.938	mg/L	94	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.943	mg/L	94	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.18	0.18			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		.968	mg/L	97	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.18	0.18			
L72231-03AS	AS	04/05/22 15:01	II220330-3	1.0001	.122	1.024	mg/L	90	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	1.0001	.122	1.047	mg/L	92	85	115	2	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		.945	mg/L	95	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.18	0.18			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		1.898	mg/L	95	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.18	0.18			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.150015		.157	mg/L	105	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	200.410015		185.8	mg/L	93	1	200			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	1.0001		1.024	mg/L	102	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	1.0001	U	1	mg/L	100	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	1.0001	U	.999	mg/L	100	85	115	0	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.959	mg/L	96	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.18	0.18			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		.993	mg/L	99	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.18	0.18			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		.99	mg/L	99	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.18	0.18			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539810													
WG539810ICV	ICV	04/06/22 17:04	MS220401-7	.05		.05364	mg/L	107	90	110			
WG539810ICB	ICB	04/06/22 17:06				U	mg/L		-0.00022	0.00022			
WG539810LFB	LFB	04/06/22 17:08	MS220401-2	.0501		.04952	mg/L	99	85	115			
WG539810CCV1	CCV	04/06/22 17:27	MS220330-4	.2505		.24493	mg/L	98	90	110			
WG539810CCB1	CCB	04/06/22 17:29				U	mg/L		-0.0003	0.0003			
L72232-01AS	AS	04/06/22 17:35	MS220401-2	.1002	.00036	.08026	mg/L	80	70	130			
L72232-01ASD	ASD	04/06/22 17:37	MS220401-2	.1002	.00036	.08151	mg/L	81	70	130	2	20	
WG539810CCV2	CCV	04/06/22 17:50	MS220330-4	.2505		.24843	mg/L	99	90	110			
WG539810CCB2	CCB	04/06/22 17:52				U	mg/L		-0.0003	0.0003			
L72257-03AS	AS	04/06/22 17:55	MS220401-2	.0501	U	.04227	mg/L	84	70	130			
L72257-03ASD	ASD	04/06/22 17:57	MS220401-2	.0501	U	.0389	mg/L	78	70	130	8	20	
WG539810CCV3	CCV	04/06/22 18:03	MS220330-4	.2505		.24205	mg/L	97	90	110			
WG539810CCB3	CCB	04/06/22 18:05				U	mg/L		-0.0003	0.0003			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.9675	mg/L	98	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.024	0.024			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.03992		.0429	mg/L	107	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.0998		.0955	mg/L	96	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.998		.8854	mg/L	89	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.9862	mg/L	99	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.024	0.024			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		.987	mg/L	99	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.024	0.024			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.998	U	.9008	mg/L	90	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.998	U	.8945	mg/L	90	85	115	1	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		1.003	mg/L	100	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.024	0.024			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		1.9738	mg/L	99	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.024	0.024			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.03992		.0421	mg/L	105	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	.0998		.1064	mg/L	107	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	.998		.9657	mg/L	97	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	.998	.108	1.075	mg/L	97	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	.998	.108	1.083	mg/L	98	85	115	1	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.9888	mg/L	99	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.024	0.024			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		.9984	mg/L	100	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.024	0.024			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		.9978	mg/L	100	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.024	0.024			
WG539763													
WG539763ICV	ICV	04/06/22 13:21	II220401-2	2		1.9582	mg/L	98	95	105			
WG539763ICB	ICB	04/06/22 13:27				U	mg/L		-0.024	0.024			
WG539763PQV	PQV	04/06/22 13:30	II220329-2	.03992		.0418	mg/L	105	70	130			
WG539763SIC	SIC	04/06/22 13:33	II220405-1	.0998		.1063	mg/L	107	80	120			
WG539763LFB	LFB	04/06/22 13:40	II220330-3	.998		.9435	mg/L	95	85	115			
L72232-04AS	AS	04/06/22 13:52	II220330-3	.998	.107	1.054	mg/L	95	85	115			
L72232-04ASD	ASD	04/06/22 13:55	II220330-3	.998	.107	1.071	mg/L	97	85	115	2	20	
WG539763CCV1	CCV	04/06/22 14:10	II220228-4	1		.995	mg/L	100	90	110			
WG539763CCB1	CCB	04/06/22 14:13				U	mg/L		-0.024	0.024			
WG539763CCV2	CCV	04/06/22 14:47	II220228-4	1		.987	mg/L	99	90	110			
WG539763CCB2	CCB	04/06/22 14:50				U	mg/L		-0.024	0.024			
WG539763CCV3	CCV	04/06/22 15:09	II220228-4	1		1.004	mg/L	100	90	110			
WG539763CCB3	CCB	04/06/22 15:12				U	mg/L		-0.024	0.024			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	100		95.22	mg/L	95	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.6	0.6			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	1.0001		1.02	mg/L	102	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	201.0201		185.2	mg/L	92	1	200			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	49.99828		44.83	mg/L	90	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	50		46.34	mg/L	93	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.6	0.6			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	50		46.97	mg/L	94	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.6	0.6			
L72231-03AS	AS	04/05/22 15:01	II220330-3	49.99828	2.14	47.1	mg/L	90	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	49.99828	2.14	47.35	mg/L	90	85	115	1	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	50		45.63	mg/L	91	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.6	0.6			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	100		95.05	mg/L	95	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.6	0.6			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	1.0001		.98	mg/L	98	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	201.0201		203.7	mg/L	101	1	200			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	49.99828		48.82	mg/L	98	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	49.99828	3.12	50.86	mg/L	95	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	49.99828	3.12	50.88	mg/L	96	85	115	0	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	50		46.57	mg/L	93	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.6	0.6			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	50		47.85	mg/L	96	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.6	0.6			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	50		48.36	mg/L	97	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.6	0.6			
WG539763													
WG539763ICV	ICV	04/06/22 13:21	II220401-2	100		95.85	mg/L	96	95	105			
WG539763ICB	ICB	04/06/22 13:27				U	mg/L		-0.6	0.6			
WG539763PQV	PQV	04/06/22 13:30	II220329-2	1.0001		.96	mg/L	96	70	130			
WG539763SIC	SIC	04/06/22 13:33	II220405-1	201.0201		206.1	mg/L	103	1	200			
WG539763LFB	LFB	04/06/22 13:40	II220330-3	49.99828		48.38	mg/L	97	85	115			
L72232-04AS	AS	04/06/22 13:52	II220330-3	49.99828	3.08	51.89	mg/L	98	85	115			
L72232-04ASD	ASD	04/06/22 13:55	II220330-3	49.99828	3.08	52.8	mg/L	99	85	115	2	20	
WG539763CCV1	CCV	04/06/22 14:10	II220228-4	50		48.45	mg/L	97	90	110			
WG539763CCB1	CCB	04/06/22 14:13				U	mg/L		-0.6	0.6			
WG539763CCV2	CCV	04/06/22 14:47	II220228-4	50		47.89	mg/L	96	90	110			
WG539763CCB2	CCB	04/06/22 14:50				U	mg/L		-0.6	0.6			
WG539763CCV3	CCV	04/06/22 15:09	II220228-4	50		45.82	mg/L	92	90	110			
WG539763CCB3	CCB	04/06/22 15:12				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.935	mg/L	97	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.03	0.03			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.05005		.05	mg/L	100	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	49.95005		43.46	mg/L	87	1	200			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.499		.471	mg/L	94	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.966	mg/L	97	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.03	0.03			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		.981	mg/L	98	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.03	0.03			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.499	.141	.588	mg/L	90	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.499	.141	.589	mg/L	90	85	115	0	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		.967	mg/L	97	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.03	0.03			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		1.913	mg/L	96	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.03	0.03			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.05005		.051	mg/L	102	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	49.95005		46.66	mg/L	93	1	200			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	.499		.512	mg/L	103	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	.499	.014	.515	mg/L	100	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	.499	.014	.516	mg/L	101	85	115	0	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.96	mg/L	96	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.03	0.03			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		.978	mg/L	98	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.03	0.03			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		.979	mg/L	98	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.03	0.03			

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539275													
WG539275ICV	ICV	03/30/22 13:29	HG220328-3	.005005		.0049	mg/L	98	90	110			
WG539275ICB	ICB	03/30/22 13:30				U	mg/L		-0.0006	0.0006			
WG539278													
WG539278CCV1	CCV	03/30/22 14:25	HG220328-3	.005005		.0051	mg/L	102	90	110			
WG539278CCB1	CCB	03/30/22 14:25				U	mg/L		-0.0002	0.0002			
WG539278PQV	PQV	03/30/22 14:26	HG220328-5	.001001		.00099	mg/L	99	70	130			
WG539278LRB	LRB	03/30/22 14:27				U	mg/L		-0.00044	0.00044			
WG539278LFB	LFB	03/30/22 14:28	HG220328-6	.002002		.00211	mg/L	105	85	115			
WG539278CCV2	CCV	03/30/22 14:36	HG220328-3	.005005		.00507	mg/L	101	90	110			
WG539278CCB2	CCB	03/30/22 14:37				U	mg/L		-0.0002	0.0002			
WG539278CCV3	CCV	03/30/22 14:47	HG220328-3	.005005		.00495	mg/L	99	90	110			
WG539278CCB3	CCB	03/30/22 14:48				U	mg/L		-0.0002	0.0002			
L72232-01LFM	LFM	03/30/22 14:50	HG220328-6	.002002	U	.00193	mg/L	96	85	115			
L72232-01LFMD	LFMD	03/30/22 14:51	HG220328-6	.002002	U	.00194	mg/L	97	85	115	1	20	
WG539278CCV4	CCV	03/30/22 14:56	HG220328-3	.005005		.00509	mg/L	102	90	110			
WG539278CCB4	CCB	03/30/22 14:57				U	mg/L		-0.0002	0.0002			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.9415	mg/L	97	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.024	0.024			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.04004		.04	mg/L	100	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.1001		.0846	mg/L	85	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.5005		.4642	mg/L	93	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.9613	mg/L	96	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.024	0.024			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		.9677	mg/L	97	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.024	0.024			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.5005	U	.4704	mg/L	94	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.5005	U	.4682	mg/L	94	85	115	0	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		.9507	mg/L	95	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.024	0.024			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		1.9552	mg/L	98	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.024	0.024			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.04004		.0426	mg/L	106	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	.1001		.0948	mg/L	95	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	.5005		.5179	mg/L	103	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	.5005	U	.5126	mg/L	102	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	.5005	U	.5051	mg/L	101	85	115	1	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.9756	mg/L	98	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.024	0.024			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		.9962	mg/L	100	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.024	0.024			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		.9997	mg/L	100	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539243													
WG539243ICV	ICV	03/29/22 23:12	WI220301-7	2.4161		2.387	mg/L	99	90	110			
WG539243ICB	ICB	03/29/22 23:13				U	mg/L		-0.02	0.02			
WG539243LFB	LFB	03/29/22 23:17	WI211001-5	2		2.058	mg/L	103	90	110			
WG539243CCV1	CCV	03/29/22 23:27	WI220329-5	2		2.039	mg/L	102	90	110			
WG539243CCB1	CCB	03/29/22 23:30				U	mg/L		-0.02	0.02			
L72231-03DUP	DUP	03/29/22 23:42			.195	.186	mg/L				5	20	RA
WG539243CCV2	CCV	03/29/22 23:44	WI220329-5	2		1.866	mg/L	93	90	110			
WG539243CCB2	CCB	03/29/22 23:47				U	mg/L		-0.02	0.02			
WG539243CCV3	CCV	03/30/22 0:01	WI220329-5	2		1.967	mg/L	98	90	110			
WG539243CCB3	CCB	03/30/22 0:04				U	mg/L		-0.02	0.02			
L72231-02AS	AS	03/30/22 0:09	WI211001-5	6	2.85	9.2	mg/L	106	90	110			
WG539243CCV4	CCV	03/30/22 0:13	WI220329-5	2		1.959	mg/L	98	90	110			
WG539243CCB4	CCB	03/30/22 0:16				U	mg/L		-0.02	0.02			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539243													
WG539243ICV	ICV	03/29/22 23:12	WI220301-7	.6089		.611	mg/L	100	90	110			
WG539243ICB	ICB	03/29/22 23:13				U	mg/L		-0.01	0.01			
WG539243LFB	LFB	03/29/22 23:17	WI211001-5	1		1.032	mg/L	103	90	110			
WG539243CCV1	CCV	03/29/22 23:27	WI220329-5	1		.979	mg/L	98	90	110			
WG539243CCB1	CCB	03/29/22 23:30				U	mg/L		-0.01	0.01			
L72231-02AS	AS	03/29/22 23:39	WI211001-5	1	U	1.078	mg/L	108	90	110			
L72231-03DUP	DUP	03/29/22 23:42			U	U	mg/L				0	20	RA
WG539243CCV2	CCV	03/29/22 23:44	WI220329-5	1		.976	mg/L	98	90	110			
WG539243CCB2	CCB	03/29/22 23:47				U	mg/L		-0.01	0.01			
WG539243CCV3	CCV	03/30/22 0:01	WI220329-5	1		.983	mg/L	98	90	110			
WG539243CCB3	CCB	03/30/22 0:04				U	mg/L		-0.01	0.01			
WG539243CCV4	CCV	03/30/22 0:13	WI220329-5	1		.977	mg/L	98	90	110			
WG539243CCB4	CCB	03/30/22 0:16				U	mg/L		-0.01	0.01			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	20		19.55	mg/L	98	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.6	0.6			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.9958		1.07	mg/L	107	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.9958		.95	mg/L	95	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	99.95169		91.35	mg/L	91	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	10		9.71	mg/L	97	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.6	0.6			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	10		9.76	mg/L	98	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.6	0.6			
L72231-03AS	AS	04/05/22 15:01	II220330-3	99.95169	1.14	93.96	mg/L	93	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	99.95169	1.14	94.46	mg/L	93	85	115	1	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	10		9.76	mg/L	98	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.6	0.6			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	20		19.52	mg/L	98	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.6	0.6			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.9958		1.09	mg/L	109	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	.9958		1.04	mg/L	104	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	99.95169		100.1	mg/L	100	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	99.95169	2.22	102.7	mg/L	101	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	99.95169	2.22	103.4	mg/L	101	85	115	1	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	10		9.82	mg/L	98	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.6	0.6			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	10		10	mg/L	100	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.6	0.6			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	10		9.98	mg/L	100	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.6	0.6			
WG539763													
WG539763ICV	ICV	04/06/22 13:21	II220401-2	20		19.68	mg/L	98	95	105			
WG539763ICB	ICB	04/06/22 13:27				U	mg/L		-0.6	0.6			
WG539763PQV	PQV	04/06/22 13:30	II220329-2	.9958		1	mg/L	100	70	130			
WG539763SIC	SIC	04/06/22 13:33	II220405-1	.9958		1.01	mg/L	101	80	120			
WG539763LFB	LFB	04/06/22 13:40	II220330-3	99.95169		98.74	mg/L	99	85	115			
L72232-04AS	AS	04/06/22 13:52	II220330-3	99.95169	2.19	102.6	mg/L	100	85	115			
L72232-04ASD	ASD	04/06/22 13:55	II220330-3	99.95169	2.19	104.2	mg/L	102	85	115	2	20	
WG539763CCV1	CCV	04/06/22 14:10	II220228-4	10		9.98	mg/L	100	90	110			
WG539763CCB1	CCB	04/06/22 14:13				U	mg/L		-0.6	0.6			
WG539763CCV2	CCV	04/06/22 14:47	II220228-4	10		9.9	mg/L	99	90	110			
WG539763CCB2	CCB	04/06/22 14:50				U	mg/L		-0.6	0.6			
WG539763CCV3	CCV	04/06/22 15:09	II220228-4	10		9.81	mg/L	98	90	110			
WG539763CCB3	CCB	04/06/22 15:12				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539217													
WG539217PBW	PBW	03/29/22 14:50				U	mg/L		-20	20			
WG539217LCSW	LCSW	03/29/22 14:52	PCN65061	1000		976	mg/L	98	80	120			
L72232-01DUP	DUP	03/29/22 15:26			3040	3096	mg/L				2	10	
L72243-01DUP	DUP	03/29/22 15:39			448	460	mg/L				3	10	
WG539432													
WG539432PBW	PBW	03/31/22 14:54				U	mg/L		-20	20			
WG539432LCSW	LCSW	03/31/22 14:56	PCN65067	1000		976	mg/L	98	80	120			
L49989-164DUP	DUP	03/31/22 15:07			U	U	mg/L				0	10	RA

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539810													
WG539810ICV	ICV	04/06/22 17:04	MS220401-7	.05		.0541	mg/L	108	90	110			
WG539810ICB	ICB	04/06/22 17:06				U	mg/L		-0.00022	0.00022			
WG539810LFB	LFB	04/06/22 17:08	MS220401-2	.05		.04983	mg/L	100	85	115			
WG539810CCV1	CCV	04/06/22 17:27	MS220330-4	.25		.25086	mg/L	100	90	110			
WG539810CCB1	CCB	04/06/22 17:29				.00014	mg/L		-0.0003	0.0003			
L72232-01AS	AS	04/06/22 17:35	MS220401-2	.1	U	.10042	mg/L	100	70	130			
L72232-01ASD	ASD	04/06/22 17:37	MS220401-2	.1	U	.10371	mg/L	104	70	130	3	20	
WG539810CCV2	CCV	04/06/22 17:50	MS220330-4	.25		.25887	mg/L	104	90	110			
WG539810CCB2	CCB	04/06/22 17:52				.00016	mg/L		-0.0003	0.0003			
L72257-03AS	AS	04/06/22 17:55	MS220401-2	.05	.0011	.05367	mg/L	105	70	130			
L72257-03ASD	ASD	04/06/22 17:57	MS220401-2	.05	.0011	.0506	mg/L	99	70	130	6	20	
WG539810CCV3	CCV	04/06/22 18:03	MS220330-4	.25		.24795	mg/L	99	90	110			
WG539810CCB3	CCB	04/06/22 18:05				.0002	mg/L		-0.0003	0.0003			
WG539895													
WG539895ICV	ICV	04/07/22 15:48	MS220401-7	.05		.05016	mg/L	100	90	110			
WG539895ICB	ICB	04/07/22 15:50				U	mg/L		-0.00022	0.00022			
WG539895LFB	LFB	04/07/22 16:00	MS220401-2	.05		.05163	mg/L	103	85	115			
WG539895CCV1	CCV	04/07/22 16:18	MS220330-4	.25		.25481	mg/L	102	90	110			
WG539895CCB1	CCB	04/07/22 16:20				U	mg/L		-0.0003	0.0003			
WG539895CCV2	CCV	04/07/22 16:41	MS220330-4	.25		.25638	mg/L	103	90	110			
WG539895CCB2	CCB	04/07/22 16:43				U	mg/L		-0.0003	0.0003			
L72296-01AS	AS	04/07/22 16:46	MS220401-2	.05	U	.055	mg/L	110	70	130			
L72296-01ASD	ASD	04/07/22 16:48	MS220401-2	.05	U	.05629	mg/L	113	70	130	2	20	
WG539895CCV3	CCV	04/07/22 16:54	MS220330-4	.25		.25504	mg/L	102	90	110			
WG539895CCB3	CCB	04/07/22 16:56				U	mg/L		-0.0003	0.0003			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	100		98.55	mg/L	99	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.6	0.6			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	1.0053		1.06	mg/L	105	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	1.0053		.98	mg/L	97	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	100.0039		91.48	mg/L	91	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	50		49.14	mg/L	98	90	110			
WG539680CCB1	CCB	04/05/22 14:20				.2	mg/L		-0.6	0.6			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	50		49.2	mg/L	98	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.6	0.6			
L72231-03AS	AS	04/05/22 15:01	II220330-3	100.0039	2.16	94.57	mg/L	92	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	100.0039	2.16	95.4	mg/L	93	85	115	1	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	50		49.49	mg/L	99	90	110			
WG539680CCB3	CCB	04/05/22 15:19				.26	mg/L		-0.6	0.6			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	100		99.02	mg/L	99	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.6	0.6			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	1.0053		1.07	mg/L	106	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	1.0053		1.05	mg/L	104	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	100.0039		100.9	mg/L	101	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	100.0039	488	549.6	mg/L	62	85	115			M3
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	100.0039	488	557.6	mg/L	70	85	115	1	20	M3
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	50		49.73	mg/L	99	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.6	0.6			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	50		50.44	mg/L	101	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.6	0.6			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	50		50.2	mg/L	100	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.6	0.6			
WG539763													
WG539763ICV	ICV	04/06/22 13:21	II220401-2	100		98.99	mg/L	99	95	105			
WG539763ICB	ICB	04/06/22 13:27				U	mg/L		-0.6	0.6			
WG539763PQV	PQV	04/06/22 13:30	II220329-2	1.0053		1.01	mg/L	100	70	130			
WG539763SIC	SIC	04/06/22 13:33	II220405-1	1.0053		1.08	mg/L	107	80	120			
WG539763LFB	LFB	04/06/22 13:40	II220330-3	100.0039		98.94	mg/L	99	85	115			
L72232-04AS	AS	04/06/22 13:52	II220330-3	100.0039	484	557	mg/L	73	85	115			M3
L72232-04ASD	ASD	04/06/22 13:55	II220330-3	100.0039	484	557.7	mg/L	74	85	115	0	20	M3
WG539763CCV1	CCV	04/06/22 14:10	II220228-4	50		50.27	mg/L	101	90	110			
WG539763CCB1	CCB	04/06/22 14:13				U	mg/L		-0.6	0.6			
WG539763CCV2	CCV	04/06/22 14:47	II220228-4	50		50.45	mg/L	101	90	110			
WG539763CCB2	CCB	04/06/22 14:50				U	mg/L		-0.6	0.6			
WG539763CCV3	CCV	04/06/22 15:09	II220228-4	50		50.03	mg/L	100	90	110			
WG539763CCB3	CCB	04/06/22 15:12				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539238													
WG539238ICB	ICB	03/29/22 18:40				U	mg/L		-3	3			
WG539238ICV	ICV	03/29/22 18:40	WI220316-7	20.46		20	mg/L	98	90	110			
WG539238CCV1	CCV	03/29/22 21:16	WI220316-6	24.875		25.6	mg/L	103	90	110			
WG539238CCB1	CCB	03/29/22 21:16				U	mg/L		-3	3			
WG539238LFB	LFB	03/29/22 21:16	WI211230-5	9.95		10.7	mg/L	108	90	110			
WG539238CCV2	CCV	03/29/22 21:18	WI220316-6	24.875		25.2	mg/L	101	90	110			
WG539238CCB2	CCB	03/29/22 21:18				U	mg/L		-3	3			
WG539238CCV3	CCV	03/29/22 21:39	WI220316-6	24.875		25	mg/L	101	90	110			
WG539238CCB3	CCB	03/29/22 21:39				U	mg/L		-3	3			
WG539238CCV4	CCV	03/29/22 21:43	WI220316-6	24.875		24.9	mg/L	100	90	110			
WG539238CCB4	CCB	03/29/22 21:43				U	mg/L		-3	3			
L72037-01DUP	DUP	03/29/22 21:45			823	801.5	mg/L				3	20	
L72037-02AS	AS	03/29/22 21:45	SO4TURB25X	10	654	655.1	mg/L	11	90	110			M3
WG539238CCV5	CCV	03/29/22 21:46	WI220316-6	24.875		25.1	mg/L	101	90	110			
WG539238CCB5	CCB	03/29/22 21:46				U	mg/L		-3	3			
WG539238CCV6	CCV	03/29/22 21:52	WI220316-6	24.875		24.9	mg/L	100	90	110			
WG539238CCB6	CCB	03/29/22 21:52				U	mg/L		-3	3			
WG539238CCV7	CCV	03/29/22 21:54	WI220316-6	24.875		24.7	mg/L	99	90	110			
WG539238CCB7	CCB	03/29/22 21:54				U	mg/L		-3	3			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.983	mg/L	99	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.015	0.015			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.025025		.023	mg/L	92	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.1001		.089	mg/L	89	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.5005		.467	mg/L	93	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.974	mg/L	97	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.03	0.03			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		1.002	mg/L	100	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.03	0.03			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.5005	U	.4774	mg/L	95	85	115			
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.5005	U	.483	mg/L	97	85	115	1	20	
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		.99	mg/L	99	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.03	0.03			
WG539702													
WG539702ICV	ICV	04/05/22 18:50	II220401-2	2		1.973	mg/L	99	95	105			
WG539702ICB	ICB	04/05/22 18:56				U	mg/L		-0.015	0.015			
WG539702PQV	PQV	04/05/22 18:59	II220329-2	.025025		.025	mg/L	100	70	130			
WG539702SIC	SIC	04/05/22 19:02	II220405-1	.1001		.095	mg/L	95	80	120			
WG539702LFB	LFB	04/05/22 19:08	II220330-3	.5005		.5077	mg/L	101	85	115			
L72232-04AS	AS	04/05/22 19:17	II220330-3	.5005	U	.5139	mg/L	103	85	115			
L72232-04ASD	ASD	04/05/22 19:20	II220330-3	.5005	U	.516	mg/L	103	85	115	0	20	
WG539702CCV1	CCV	04/05/22 19:39	II220228-4	1		.993	mg/L	99	90	110			
WG539702CCB1	CCB	04/05/22 19:42				U	mg/L		-0.03	0.03			
WG539702CCV2	CCV	04/05/22 20:16	II220228-4	1		1.021	mg/L	102	90	110			
WG539702CCB2	CCB	04/05/22 20:19				U	mg/L		-0.03	0.03			
WG539702CCV3	CCV	04/05/22 20:38	II220228-4	1		1.028	mg/L	103	90	110			
WG539702CCB3	CCB	04/05/22 20:41				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L72232***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539680													
WG539680ICV	ICV	04/05/22 13:28	II220401-2	2		1.896	mg/L	95	95	105			
WG539680ICB	ICB	04/05/22 13:34				U	mg/L		-0.06	0.06			
WG539680PQV	PQV	04/05/22 13:37	II220329-2	.05015		.048	mg/L	96	70	130			
WG539680SIC	SIC	04/05/22 13:40	II220405-1	.1003		.085	mg/L	85	80	120			
WG539680LFB	LFB	04/05/22 13:46	II220330-3	.50045		.475	mg/L	95	85	115			
WG539680CCV1	CCV	04/05/22 14:17	II220228-4	1		.927	mg/L	93	90	110			
WG539680CCB1	CCB	04/05/22 14:20				U	mg/L		-0.06	0.06			
WG539680CCV2	CCV	04/05/22 14:55	II220228-4	1		.957	mg/L	96	90	110			
WG539680CCB2	CCB	04/05/22 14:58				U	mg/L		-0.06	0.06			
L72231-03AS	AS	04/05/22 15:01	II220330-3	.50045	1.09	1.475	mg/L	77	85	115			M2
L72231-03ASD	ASD	04/05/22 15:04	II220330-3	.50045	1.09	1.499	mg/L	82	85	115	2	20	M2
WG539680CCV3	CCV	04/05/22 15:16	II220228-4	1		.922	mg/L	92	90	110			
WG539680CCB3	CCB	04/05/22 15:19				U	mg/L		-0.06	0.06			
WG539763													
WG539763ICV	ICV	04/06/22 13:21	II220401-2	2		1.892	mg/L	95	95	105			
WG539763ICB	ICB	04/06/22 13:27				U	mg/L		-0.06	0.06			
WG539763PQV	PQV	04/06/22 13:30	II220329-2	.05015		.051	mg/L	102	70	130			
WG539763SIC	SIC	04/06/22 13:33	II220405-1	.1003		.099	mg/L	99	80	120			
WG539763LFB	LFB	04/06/22 13:40	II220330-3	.50045		.495	mg/L	99	85	115			
L72232-04AS	AS	04/06/22 13:52	II220330-3	.50045	U	.495	mg/L	99	85	115			
L72232-04ASD	ASD	04/06/22 13:55	II220330-3	.50045	U	.524	mg/L	105	85	115	6	20	
WG539763CCV1	CCV	04/06/22 14:10	II220228-4	1		.954	mg/L	95	90	110			
WG539763CCB1	CCB	04/06/22 14:13				U	mg/L		-0.06	0.06			
WG539763CCV2	CCV	04/06/22 14:47	II220228-4	1		.96	mg/L	96	90	110			
WG539763CCB2	CCB	04/06/22 14:50				U	mg/L		-0.06	0.06			
WG539763CCV3	CCV	04/06/22 15:09	II220228-4	1		.898	mg/L	90	90	110			
WG539763CCB3	CCB	04/06/22 15:12				U	mg/L		-0.06	0.06			

GCC Rio Grande ACZ Project ID: ***L72232***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72232-01	WG539236	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG540080	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG540219	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG539236	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG539243	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539217	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG539238	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG539236	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
			SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
	WG539680	Zinc, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L72232-02	WG539236	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG540080	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG540219	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG539236	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG539243	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539432	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
			SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539238	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG539236	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG539680	Zinc, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72232-03	WG539236	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG540080	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG540219	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG539236	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG539243	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539217	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG539702	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG539238	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG539236	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG539763	Zinc, dissolved	M200.7 ICP	D5	Sample required dilution. Sample matrix causing internal standards to recover outside method limits.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72232-04	WG539236	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG540080	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG540219	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG539236	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG539243	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539217	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG539895	Selenium, dissolved	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
	WG539702	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG539238	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG539236	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72232-05	WG539702	Aluminum, dissolved	M200.7 ICP	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
		Beryllium, dissolved	M200.7 ICP	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
	WG539236	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG540080	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG539702	Chromium, dissolved	M200.7 ICP	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
		Cobalt, dissolved	M200.7 ICP	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
		Copper, dissolved	M200.7 ICP	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
	WG540219	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG539236	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG539702	Iron, dissolved	M200.7 ICP	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
		Manganese, dissolved	M200.7 ICP	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
		Nickel, dissolved	M200.7 ICP	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
	WG539243	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539217	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG539763	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG539238	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG539236	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
			SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
	WG539702	Vanadium, dissolved	M200.7 ICP	IA	Internal standard recovery exceeded the acceptance limits. Concentration of associated target analyte(s) in the sample is < MDL.
	WG539763	Zinc, dissolved	M200.7 ICP	D5	Sample required dilution. Sample matrix causing internal standards to recover outside method limits.

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L72232***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L72232
Date Received: 03/29/2022 11:28
Received By:
Date Printed: 3/30/2022

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?		X	

Some parameters were received past hold time.

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
NA37253	7.9	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s) but was thawed by receipt at ACZ.

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L72232
Date Received: 03/29/2022 11:28
Received By:
Date Printed: 3/30/2022

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ LABORATORIES | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L72232

CHAIN of CUSTODY

Report to:

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

Copy of Report to:

Name: Landon Beck
Company: RHS
E-mail: lbeck@resourcehydrogeologic.com
Telephone:

Invoice to:

Name: Amy Veek
Company: GCC Rio Grande
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

Copy of Invoice to:

Name:
Company:
E-mail:
Address:
Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ✓ NO

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes No ✓

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Amy Veek **Sampler's Site Information** **State** CO **Zip code** 81004 **Time Zone** MDT

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material?

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	GW-Compliance								
MW-8	3/28/2022 09:52	GW	3	✓								
MW-9	3/28/2022 11:26	GW	3	✓								
MW-10	3/28/2022 11:02	GW	3	✓								
MW-12	3/28/2022 10:23	GW	3	✓								
MW-14	3/28/2022 13:15	GW	3	✓								

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	3/28/22 15:32	[signature]	3/29/22 11:25

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L72232 Chain of Custod

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Revised Analytical Report

June 09, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Project ID: 105495
ACZ Project ID: L73169

Amy Veek:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 12, 2022 and originally reported on May 31, 2022. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L73169. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L73169. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after May 31, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Bill Lane has reviewed and approved this report

GCC Rio Grande
Project ID: 105495
Sample ID: MW-13

ACZ Sample ID: ***L73169-01***
Date Sampled: *05/10/22 11:37*
Date Received: *05/12/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	05/23/22 17:53	keh1
Arsenic, dissolved	M200.8 ICP-MS	2	0.00075	B		mg/L	0.0004	0.002	05/24/22 9:51	kja
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	05/23/22 17:53	keh1
Boron, dissolved	M200.7 ICP	2	0.948			mg/L	0.06	0.2	05/23/22 17:53	keh1
Cadmium, dissolved	M200.8 ICP-MS	2	<0.0001	U		mg/L	0.0001	0.0005	05/24/22 9:51	kja
Calcium, dissolved	M200.7 ICP	2	4.13			mg/L	0.2	1	05/23/22 17:53	keh1
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	05/23/22 17:53	keh1
Cobalt, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	05/23/22 17:53	keh1
Copper, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	05/23/22 17:53	keh1
Iron, dissolved	M200.7 ICP	2	<0.12	U		mg/L	0.12	0.3	05/23/22 17:53	keh1
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	05/24/22 9:51	kja
Lithium, dissolved	M200.7 ICP	2	0.180			mg/L	0.016	0.08	05/23/22 17:53	keh1
Magnesium, dissolved	M200.7 ICP	2	1.00	B		mg/L	0.4	2	05/23/22 17:53	keh1
Manganese, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	05/23/22 17:53	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/18/22 12:24	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	05/23/22 17:53	keh1
Potassium, dissolved	M200.7 ICP	2	2.44			mg/L	0.4	2	05/23/22 17:53	keh1
Selenium, dissolved	M200.8 ICP-MS	2	0.0184			mg/L	0.0002	0.0005	05/24/22 9:51	kja
Sodium, dissolved	M200.7 ICP	2	782		*	mg/L	0.4	2	05/23/22 17:53	keh1
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	05/23/22 17:53	keh1
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	05/23/22 17:53	keh1

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	933			mg/L	2	20	05/21/22 0:00	eep
Carbonate as CaCO3		1	61.8			mg/L	2	20	05/21/22 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/21/22 0:00	eep
Total Alkalinity		1	995		*	mg/L	2	20	05/21/22 0:00	eep
Chloride	SM4500Cl-E	25	566		*	mg/L	12.5	50	05/19/22 13:05	mjj1
Fluoride	SM4500F-C	1	6.06			mg/L	0.15	0.35	05/26/22 17:46	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.109	H		mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.109	H	*	mg/L	0.02	0.1	05/12/22 23:31	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	05/12/22 23:31	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	2150			mg/L	40	80	05/16/22 11:41	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	88.5			mg/L	5	25	05/19/22 15:51	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L73169-02***
Date Sampled: *05/10/22 12:00*
Date Received: *05/12/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	05/23/22 17:56	keh1
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	05/24/22 9:53	kja
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	05/23/22 17:56	keh1
Boron, dissolved	M200.7 ICP	5	0.386	B		mg/L	0.15	0.5	05/23/22 17:56	keh1
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	05/24/22 9:53	kja
Calcium, dissolved	M200.7 ICP	5	373			mg/L	0.5	2.5	05/23/22 17:56	keh1
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	05/23/22 17:56	keh1
Cobalt, dissolved	M200.8 ICP-MS	5	0.00220			mg/L	0.00025	0.00125	05/24/22 9:53	kja
Cobalt, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	05/23/22 17:56	keh1
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	05/23/22 17:56	keh1
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	05/23/22 17:56	keh1
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	05/24/22 9:53	kja
Lithium, dissolved	M200.7 ICP	5	0.559			mg/L	0.04	0.2	05/23/22 17:56	keh1
Magnesium, dissolved	M200.7 ICP	5	389			mg/L	1	5	05/23/22 17:56	keh1
Manganese, dissolved	M200.7 ICP	5	0.096	B		mg/L	0.05	0.25	05/23/22 17:56	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/18/22 12:25	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	05/23/22 17:56	keh1
Potassium, dissolved	M200.7 ICP	5	10.3			mg/L	1	5	05/23/22 17:56	keh1
Selenium, dissolved	M200.8 ICP-MS	5	0.00605			mg/L	0.0005	0.00125	05/24/22 9:53	kja
Sodium, dissolved	M200.7 ICP	5	675		*	mg/L	1	5	05/23/22 17:56	keh1
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	05/23/22 17:56	keh1
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	05/23/22 17:56	keh1

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	490			mg/L	2	20	05/21/22 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/21/22 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/21/22 0:00	eep
Total Alkalinity		1	490		*	mg/L	2	20	05/21/22 0:00	eep
Chloride	SM4500Cl-E	5	104			mg/L	2.5	10	05/19/22 12:52	mjj1
Fluoride	SM4500F-C	1	0.58			mg/L	0.15	0.35	05/26/22 17:50	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.200	H		mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.200	H	*	mg/L	0.02	0.1	05/12/22 23:34	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	05/12/22 23:34	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5660	H	*	mg/L	40	80	05/20/22 10:17	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3290			mg/L	120	600	05/19/22 15:53	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L73169-03***
Date Sampled: *05/10/22 12:38*
Date Received: *05/12/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	05/23/22 17:59	keh1
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	05/24/22 9:54	kja
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	05/23/22 17:59	keh1
Boron, dissolved	M200.7 ICP	5	0.372	B		mg/L	0.15	0.5	05/23/22 17:59	keh1
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	05/24/22 9:54	kja
Calcium, dissolved	M200.7 ICP	5	376			mg/L	0.5	2.5	05/23/22 17:59	keh1
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	05/23/22 17:59	keh1
Cobalt, dissolved	M200.8 ICP-MS	5	0.00228			mg/L	0.00025	0.00125	05/24/22 9:54	kja
Cobalt, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	05/23/22 17:59	keh1
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	05/23/22 17:59	keh1
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	05/23/22 17:59	keh1
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	05/24/22 9:54	kja
Lithium, dissolved	M200.7 ICP	5	0.551			mg/L	0.04	0.2	05/23/22 17:59	keh1
Magnesium, dissolved	M200.7 ICP	5	392			mg/L	1	5	05/23/22 17:59	keh1
Manganese, dissolved	M200.7 ICP	5	0.093	B		mg/L	0.05	0.25	05/23/22 17:59	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/18/22 12:26	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	05/23/22 17:59	keh1
Potassium, dissolved	M200.7 ICP	5	10.1			mg/L	1	5	05/23/22 17:59	keh1
Selenium, dissolved	M200.8 ICP-MS	5	0.00549			mg/L	0.0005	0.00125	05/24/22 9:54	kja
Sodium, dissolved	M200.7 ICP	5	662		*	mg/L	1	5	05/23/22 17:59	keh1
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	05/23/22 17:59	keh1
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	05/23/22 17:59	keh1

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	477			mg/L	2	20	05/21/22 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/21/22 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/21/22 0:00	eep
Total Alkalinity		1	477		*	mg/L	2	20	05/21/22 0:00	eep
Chloride	SM4500Cl-E	5	104			mg/L	2.5	10	05/19/22 12:53	mjj1
Fluoride	SM4500F-C	1	0.58			mg/L	0.15	0.35	05/26/22 17:54	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.186	H		mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.186	H	*	mg/L	0.02	0.1	05/12/22 23:39	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	05/12/22 23:39	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5660	H	*	mg/L	40	80	05/20/22 10:19	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3240			mg/L	120	600	05/19/22 15:53	mjj1

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542697													
WG542697PBW1	PBW	05/20/22 18:39				10.7	mg/L		-20	20			
WG542697LCSW3	LCSW	05/20/22 18:58	WC220513-7	820.0001		794.8	mg/L	97	90	110			
WG542697LCSW6	LCSW	05/20/22 21:23	WC220513-7	820.0001		796.9	mg/L	97	90	110			
WG542697PBW2	PBW	05/20/22 21:29				6.7	mg/L		-20	20			
WG542697LCSW9	LCSW	05/21/22 0:04	WC220513-7	820.0001		800.5	mg/L	98	90	110			
WG542697PBW3	PBW	05/21/22 0:10				4.8	mg/L		-20	20			
L73190-01DUP	DUP	05/21/22 2:16			U	U	mg/L				0	20	RA
WG542697LCSW12	LCSW	05/21/22 3:34	WC220513-7	820.0001		781	mg/L	95	90	110			
WG542697PBW4	PBW	05/21/22 3:40				6.7	mg/L		-20	20			
WG542697LCSW15	LCSW	05/21/22 6:36	WC220513-7	820.0001		791.8	mg/L	97	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		1.937	mg/L	97	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.15	0.15			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.2502		.247	mg/L	99	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	200.4102		201.4	mg/L	100	1	200			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	1.0008		1.04	mg/L	104	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		.968	mg/L	97	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.15	0.15			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		.963	mg/L	96	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.15	0.15			
L73170-02AS	AS	05/23/22 18:14	II220505-2	1.0008	U	1.011	mg/L	101	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	1.0008	U	1.021	mg/L	102	85	115	1	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.957	mg/L	96	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.15	0.15			

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542701													
WG542701ICV	ICV	05/24/22 9:08	MS220502-1	.05		.05103	mg/L	102	90	110			
WG542701ICB	ICB	05/24/22 9:09				U	mg/L		-0.00044	0.00044			
WG542701LFB	LFB	05/24/22 9:11	MS220506-2	.05005		.05077	mg/L	101	85	115			
WG542701CCV1	CCV	05/24/22 9:26	MS220502-5	.1001		.10002	mg/L	100	90	110			
WG542701CCB1	CCB	05/24/22 9:27				U	mg/L		-0.0006	0.0006			
L73154-03AS	AS	05/24/22 9:42	MS220506-2	.05005	.00064	.05169	mg/L	102	70	130			
L73154-03ASD	ASD	05/24/22 9:44	MS220506-2	.05005	.00064	.05146	mg/L	102	70	130	0	20	
WG542701CCV2	CCV	05/24/22 9:47	MS220502-5	.1001		.09744	mg/L	97	90	110			
WG542701CCB2	CCB	05/24/22 9:49				U	mg/L		-0.0006	0.0006			
WG542701CCV3	CCV	05/24/22 10:03	MS220502-5	.1001		.09614	mg/L	96	90	110			
WG542701CCB3	CCB	05/24/22 10:05				U	mg/L		-0.0006	0.0006			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		1.901	mg/L	95	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.03	0.03			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.05005		.056	mg/L	112	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	.1001		.102	mg/L	102	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.501		.489	mg/L	98	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		.956	mg/L	96	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.03	0.03			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		.951	mg/L	95	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.03	0.03			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.501	U	.476	mg/L	95	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.501	U	.479	mg/L	96	85	115	1	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.949	mg/L	95	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.03	0.03			

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		2.006	mg/L	100	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.09	0.09			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.1001		.11	mg/L	110	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	.1001		.108	mg/L	108	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.5005		.533	mg/L	106	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		.999	mg/L	100	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.09	0.09			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		.994	mg/L	99	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.09	0.09			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.5005	.706	1.198	mg/L	98	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.5005	.706	1.187	mg/L	96	85	115	1	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.994	mg/L	99	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.09	0.09			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542701													
WG542701ICV	ICV	05/24/22 9:08	MS220502-1	.05		.050982	mg/L	102	90	110			
WG542701ICB	ICB	05/24/22 9:09				U	mg/L		-0.00011	0.00011			
WG542701LFB	LFB	05/24/22 9:11	MS220506-2	.05005		.0498	mg/L	100	85	115			
WG542701CCV1	CCV	05/24/22 9:26	MS220502-5	.1001		.099454	mg/L	99	90	110			
WG542701CCB1	CCB	05/24/22 9:27				U	mg/L		-0.00015	0.00015			
L73154-03AS	AS	05/24/22 9:42	MS220506-2	.05005	.000059	.048381	mg/L	97	70	130			
L73154-03ASD	ASD	05/24/22 9:44	MS220506-2	.05005	.000059	.048715	mg/L	97	70	130	1	20	
WG542701CCV2	CCV	05/24/22 9:47	MS220502-5	.1001		.098352	mg/L	98	90	110			
WG542701CCB2	CCB	05/24/22 9:49				U	mg/L		-0.00015	0.00015			
WG542701CCV3	CCV	05/24/22 10:03	MS220502-5	.1001		.097981	mg/L	98	90	110			
WG542701CCB3	CCB	05/24/22 10:05				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	100		99.87	mg/L	100	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.3	0.3			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.5003		.51	mg/L	102	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	200.6203		198.7	mg/L	99	1	200			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	67.9908		70.27	mg/L	103	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	50		50	mg/L	100	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.3	0.3			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	50		49.56	mg/L	99	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.3	0.3			
L73170-02AS	AS	05/23/22 18:14	II220505-2	67.9908	2.45	70.65	mg/L	100	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	67.9908	2.45	71.33	mg/L	101	85	115	1	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	50		49.18	mg/L	98	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.3	0.3			

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542552													
WG542552ICV	ICV	05/19/22 12:14	WI220502-12	54.945		56.35	mg/L	103	90	110			
WG542552ICB	ICB	05/19/22 12:14				.7	mg/L		-1.5	1.5			
WG542552LFB1	LFB	05/19/22 12:15	WI220328-1	29.97		29.75	mg/L	99	90	110			
WG542552CCV1	CCV	05/19/22 12:20	WI220323-1	49.95		50.86	mg/L	102	90	110			
WG542552CCB1	CCB	05/19/22 12:20				.54	mg/L		-1.5	1.5			
L71593-13AS	AS	05/19/22 12:23	WI220328-1	29.97	.71	33.27	mg/L	109	90	110			
L71594-13DUP	DUP	05/19/22 12:24			.95	.94	mg/L				1	20	RA
WG542552CCV2	CCV	05/19/22 12:26	WI220323-1	49.95		50.16	mg/L	100	90	110			
WG542552CCB2	CCB	05/19/22 12:27				.7	mg/L		-1.5	1.5			
WG542552LFB2	LFB	05/19/22 12:30	WI220328-1	29.97		30.64	mg/L	102	90	110			
WG542552CCV3	CCV	05/19/22 12:32	WI220323-1	49.95		51.39	mg/L	103	90	110			
WG542552CCB3	CCB	05/19/22 12:32				.87	mg/L		-1.5	1.5			
WG542552CCV4	CCV	05/19/22 12:37	WI220323-1	49.95		51.66	mg/L	103	90	110			
WG542552CCB4	CCB	05/19/22 12:37				.95	mg/L		-1.5	1.5			
WG542552CCV5	CCV	05/19/22 12:51	WI220323-1	49.95		51.52	mg/L	103	90	110			
WG542552CCB5	CCB	05/19/22 12:51				1.16	mg/L		-1.5	1.5			
L73169-02AS	AS	05/19/22 12:53	5XCL	30	104	134.35	mg/L	101	90	110			
L73169-03DUP	DUP	05/19/22 12:54			104	104.09	mg/L				0	20	
WG542552CCV6	CCV	05/19/22 12:54	WI220323-1	49.95		51.53	mg/L	103	90	110			
WG542552CCB6	CCB	05/19/22 12:55				1.14	mg/L		-1.5	1.5			
WG542552CCV7	CCV	05/19/22 13:04	WI220323-1	49.95		50.68	mg/L	101	90	110			
WG542552CCB7	CCB	05/19/22 13:05				1.05	mg/L		-1.5	1.5			
WG542552CCV8	CCV	05/19/22 13:05	WI220323-1	49.95		51.63	mg/L	103	90	110			
WG542552CCB8	CCB	05/19/22 13:06				1.11	mg/L		-1.5	1.5			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		1.975	mg/L	99	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.06	0.06			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.05005		.055	mg/L	110	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	.1001		.091	mg/L	91	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.501		.505	mg/L	101	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		.982	mg/L	98	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.06	0.06			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		.973	mg/L	97	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.06	0.06			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.501	U	.497	mg/L	99	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.501	U	.489	mg/L	98	85	115	2	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.966	mg/L	97	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2.01		2.005	mg/L	100	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.06	0.06			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.05005		.056	mg/L	112	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	.1001		.101	mg/L	101	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.5005		.507	mg/L	101	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1.005		1.004	mg/L	100	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.06	0.06			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1.005		.998	mg/L	99	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.06	0.06			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.5005	U	.484	mg/L	97	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.5005	U	.488	mg/L	98	85	115	1	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1.005		.985	mg/L	98	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542701													
WG542701ICV	ICV	05/24/22 9:08	MS220502-1	.05		.050841	mg/L	102	90	110			
WG542701ICB	ICB	05/24/22 9:09				U	mg/L		-0.00011	0.00011			
WG542701LFB	LFB	05/24/22 9:11	MS220506-2	.05005		.050299	mg/L	100	85	115			
WG542701CCV1	CCV	05/24/22 9:26	MS220502-5	.1001		.098451	mg/L	98	90	110			
WG542701CCB1	CCB	05/24/22 9:27				U	mg/L		-0.00015	0.00015			
L73154-03AS	AS	05/24/22 9:42	MS220506-2	.05005	U	.04984	mg/L	100	70	130			
L73154-03ASD	ASD	05/24/22 9:44	MS220506-2	.05005	U	.050543	mg/L	101	70	130	1	20	
WG542701CCV2	CCV	05/24/22 9:47	MS220502-5	.1001		.100211	mg/L	100	90	110			
WG542701CCB2	CCB	05/24/22 9:49				U	mg/L		-0.00015	0.00015			
WG542701CCV3	CCV	05/24/22 10:03	MS220502-5	.1001		.098638	mg/L	99	90	110			
WG542701CCB3	CCB	05/24/22 10:05				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		2.012	mg/L	101	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.03	0.03			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.05		.055	mg/L	110	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	.1		.1	mg/L	100	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.5		.513	mg/L	103	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		1.009	mg/L	101	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.03	0.03			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		1.007	mg/L	101	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.03	0.03			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.5	U	.504	mg/L	101	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.5	U	.507	mg/L	101	85	115	1	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		1.005	mg/L	101	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.03	0.03			

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543079													
WG543079ICV	ICV	05/26/22 14:41	WC220517-1	2.008		2.02	mg/L	101	90	110			
WG543079ICB	ICB	05/26/22 14:47				U	mg/L		-0.3	0.3			
WG543079PQV	PQV	05/26/22 14:50	WC220520-8	.3514		.39	mg/L	111	70	130			
WG543079LFB1	LFB	05/26/22 14:54	WC220104-2	5.02		5.05	mg/L	101	90	110			
WG543079CCV1	CCV	05/26/22 15:50	WC220517-1	2.008		2.11	mg/L	105	90	110			
WG543079CCB1	CCB	05/26/22 15:57				U	mg/L		-0.3	0.3			
WG543079CCV2	CCV	05/26/22 16:40	WC220517-1	2.008		2.13	mg/L	106	90	110			
WG543079CCB2	CCB	05/26/22 16:48				U	mg/L		-0.3	0.3			
WG543079LFB2	LFB	05/26/22 17:09	WC220104-2	5.02		5.21	mg/L	104	90	110			
L73118-03AS	AS	05/26/22 17:16	WC220104-2	5.02	2.31	7.22	mg/L	98	90	110			
L73118-03ASD	ASD	05/26/22 17:20	WC220104-2	5.02	2.31	7.22	mg/L	98	90	110	0	20	
WG543079CCV3	CCV	05/26/22 17:27	WC220517-1	2.008		2.16	mg/L	108	90	110			
WG543079CCB3	CCB	05/26/22 17:35				U	mg/L		-0.3	0.3			
WG543079CCV4	CCV	05/26/22 18:08	WC220517-1	2.008		2.15	mg/L	107	90	110			
WG543079CCB4	CCB	05/26/22 18:16				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		2.002	mg/L	100	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.18	0.18			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.150195		.152	mg/L	101	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	200.410195		195.3	mg/L	97	1	200			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	1.0013		1.036	mg/L	103	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		1.004	mg/L	100	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.18	0.18			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		.989	mg/L	99	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.18	0.18			
L73170-02AS	AS	05/23/22 18:14	II220505-2	1.0013	U	1.023	mg/L	102	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	1.0013	U	1.052	mg/L	105	85	115	3	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.975	mg/L	98	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.18	0.18			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542701													
WG542701ICV	ICV	05/24/22 9:08	MS220502-1	.05		.05055	mg/L	101	90	110			
WG542701ICB	ICB	05/24/22 9:09				U	mg/L		-0.00022	0.00022			
WG542701LFB	LFB	05/24/22 9:11	MS220506-2	.0501		.04959	mg/L	99	85	115			
WG542701CCV1	CCV	05/24/22 9:26	MS220502-5	.2505		.25119	mg/L	100	90	110			
WG542701CCB1	CCB	05/24/22 9:27				U	mg/L		-0.0003	0.0003			
L73154-03AS	AS	05/24/22 9:42	MS220506-2	.0501	U	.04994	mg/L	100	70	130			
L73154-03ASD	ASD	05/24/22 9:44	MS220506-2	.0501	U	.0506	mg/L	101	70	130	1	20	
WG542701CCV2	CCV	05/24/22 9:47	MS220502-5	.2505		.2475	mg/L	99	90	110			
WG542701CCB2	CCB	05/24/22 9:49				U	mg/L		-0.0003	0.0003			
WG542701CCV3	CCV	05/24/22 10:03	MS220502-5	.2505		.23521	mg/L	94	90	110			
WG542701CCB3	CCB	05/24/22 10:05				U	mg/L		-0.0003	0.0003			

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		1.9775	mg/L	99	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.024	0.024			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.03992		.0442	mg/L	111	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	.0998		.107	mg/L	107	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.998		.9852	mg/L	99	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		.9898	mg/L	99	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.024	0.024			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		.9903	mg/L	99	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.024	0.024			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.998	.119	1.08	mg/L	96	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.998	.119	1.091	mg/L	97	85	115	1	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.9926	mg/L	99	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.024	0.024			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	100		96.45	mg/L	96	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.6	0.6			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	1.0001		.94	mg/L	94	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	201.0201		205.6	mg/L	102	1	200			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	49.99922		49.18	mg/L	98	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	50		47.93	mg/L	96	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.6	0.6			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	50		47.16	mg/L	94	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.6	0.6			
L73170-02AS	AS	05/23/22 18:14	II220505-2	49.99922	1.48	49.36	mg/L	96	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	49.99922	1.48	49.6	mg/L	96	85	115	0	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	50		46.38	mg/L	93	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.6	0.6			

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		1.959	mg/L	98	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.03	0.03			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.0498		.055	mg/L	110	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	49.9498		49	mg/L	98	1	200			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.499		.517	mg/L	104	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		.991	mg/L	99	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.03	0.03			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		.981	mg/L	98	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.03	0.03			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.499	U	.505	mg/L	101	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.499	U	.506	mg/L	101	85	115	0	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.976	mg/L	98	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542376													
WG542376ICV1	ICV	05/18/22 8:45	HG220508-3	.005005		.00505	mg/L	101	90	110			
WG542376ICB	ICB	05/18/22 8:46				U	mg/L		-0.0006	0.0006			
WG542419													
WG542419CCV1	CCV	05/18/22 12:06	HG220508-3	.005005		.00538	mg/L	107	90	110			
WG542419CCB1	CCB	05/18/22 12:07				U	mg/L		-0.0002	0.0002			
WG542419PQV	PQV	05/18/22 12:08	HG220508-5	.001001		.00095	mg/L	95	70	130			
WG542419LRB	LRB	05/18/22 12:09				U	mg/L		-0.00044	0.00044			
WG542419LFB	LFB	05/18/22 12:10	HG220508-6	.002002		.00197	mg/L	98	85	115			
WG542419CCV2	CCV	05/18/22 12:18	HG220508-3	.005005		.00515	mg/L	103	90	110			
WG542419CCB2	CCB	05/18/22 12:18				U	mg/L		-0.0002	0.0002			
WG542419CCV3	CCV	05/18/22 12:29	HG220508-3	.005005		.00522	mg/L	104	90	110			
WG542419CCB3	CCB	05/18/22 12:30				U	mg/L		-0.0002	0.0002			
L73221-03LFM	LFM	05/18/22 12:32	HG220508-6	.002002	U	.00192	mg/L	96	85	115			
L73221-03LFMD	LFMD	05/18/22 12:33	HG220508-6	.002002	U	.00196	mg/L	98	85	115	2	20	
WG542419CCV4	CCV	05/18/22 12:37	HG220508-3	.005005		.00523	mg/L	104	90	110			
WG542419CCB4	CCB	05/18/22 12:38				U	mg/L		-0.0002	0.0002			

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		1.9772	mg/L	99	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.024	0.024			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.04004		.0386	mg/L	96	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	.1001		.0927	mg/L	93	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.5005		.5119	mg/L	102	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		1.006	mg/L	101	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.024	0.024			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		1	mg/L	100	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.024	0.024			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.5005	U	.4947	mg/L	99	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.5005	U	.4929	mg/L	98	85	115	0	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.995	mg/L	100	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542174													
WG542174ICV	ICV	05/12/22 23:03	WI220301-7	2.4161		2.291	mg/L	95	90	110			
WG542174ICB	ICB	05/12/22 23:04				U	mg/L		-0.02	0.02			
WG542174LFB	LFB	05/12/22 23:08	WI220401-10	2		2.037	mg/L	102	90	110			
WG542174CCV1	CCV	05/12/22 23:18	WI220505-1	2		2.001	mg/L	100	90	110			
WG542174CCB1	CCB	05/12/22 23:21				U	mg/L		-0.02	0.02			
L73168-01AS	AS	05/12/22 23:30	WI220401-10	2	.46	2.495	mg/L	102	90	110			
L73169-01DUP	DUP	05/12/22 23:32			.109	.112	mg/L				3	20	RA
WG542174CCV2	CCV	05/12/22 23:35	WI220505-1	2		1.904	mg/L	95	90	110			
WG542174CCB2	CCB	05/12/22 23:38				U	mg/L		-0.02	0.02			
WG542174CCV3	CCV	05/12/22 23:52	WI220505-1	2		2.004	mg/L	100	90	110			
WG542174CCB3	CCB	05/12/22 23:55				U	mg/L		-0.02	0.02			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542174													
WG542174ICV	ICV	05/12/22 23:03	WI220301-7	.6089		.618	mg/L	101	90	110			
WG542174ICB	ICB	05/12/22 23:04				U	mg/L		-0.01	0.01			
WG542174LFB	LFB	05/12/22 23:08	WI220401-10	1		1.038	mg/L	104	90	110			
WG542174CCV1	CCV	05/12/22 23:18	WI220505-1	1		1.005	mg/L	101	90	110			
WG542174CCB1	CCB	05/12/22 23:21				U	mg/L		-0.01	0.01			
L73168-01AS	AS	05/12/22 23:30	WI220401-10	1	U	1.044	mg/L	104	90	110			
L73169-01DUP	DUP	05/12/22 23:32			U	U	mg/L				0	20	RA
WG542174CCV2	CCV	05/12/22 23:35	WI220505-1	1		1.004	mg/L	100	90	110			
WG542174CCB2	CCB	05/12/22 23:38				U	mg/L		-0.01	0.01			
WG542174CCV3	CCV	05/12/22 23:52	WI220505-1	1		1.007	mg/L	101	90	110			
WG542174CCB3	CCB	05/12/22 23:55				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	20		19.8	mg/L	99	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.6	0.6			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	1.005		1.01	mg/L	100	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	1.005		1.02	mg/L	101	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	99.96218		101.8	mg/L	102	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	10		9.9	mg/L	99	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.6	0.6			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	10		9.89	mg/L	99	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.6	0.6			
L73170-02AS	AS	05/23/22 18:14	II220505-2	99.96218	.81	100.2	mg/L	99	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	99.96218	.81	101.5	mg/L	101	85	115	1	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	10		9.89	mg/L	99	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542276													
WG542276PBW	PBW	05/16/22 11:00				U	mg/L		-20	20			
WG542276LCSW	LCSW	05/16/22 11:02	PCN65839	1000		988	mg/L	99	80	120			
L73190-16DUP	DUP	05/16/22 12:00			47400	46400	mg/L				2	10	
WG542661													
WG542661PBW	PBW	05/20/22 10:12				U	mg/L		-20	20			
WG542661LCSW	LCSW	05/20/22 10:14	PCN65838	1000		968	mg/L	97	80	120			
L73340-08DUP	DUP	05/20/22 10:43			270	268	mg/L				1	10	

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542701													
WG542701ICV	ICV	05/24/22 9:08	MS220502-1	.05		.05091	mg/L	102	90	110			
WG542701ICB	ICB	05/24/22 9:09				U	mg/L		-0.00022	0.00022			
WG542701LFB	LFB	05/24/22 9:11	MS220506-2	.05		.05031	mg/L	101	85	115			
WG542701CCV1	CCV	05/24/22 9:26	MS220502-5	.25		.25204	mg/L	101	90	110			
WG542701CCB1	CCB	05/24/22 9:27				U	mg/L		-0.0003	0.0003			
L73154-03AS	AS	05/24/22 9:42	MS220506-2	.05	U	.04945	mg/L	99	70	130			
L73154-03ASD	ASD	05/24/22 9:44	MS220506-2	.05	U	.04949	mg/L	99	70	130	0	20	
WG542701CCV2	CCV	05/24/22 9:47	MS220502-5	.25		.24292	mg/L	97	90	110			
WG542701CCB2	CCB	05/24/22 9:49				U	mg/L		-0.0003	0.0003			
WG542701CCV3	CCV	05/24/22 10:03	MS220502-5	.25		.24236	mg/L	97	90	110			
WG542701CCB3	CCB	05/24/22 10:05				.00012	mg/L		-0.0003	0.0003			

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	100		99.43	mg/L	99	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.6	0.6			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	1.002		1.04	mg/L	104	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	1.002		1.09	mg/L	109	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	100.0282		101.2	mg/L	101	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	50		49.48	mg/L	99	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.6	0.6			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	50		49.23	mg/L	98	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.6	0.6			
L73170-02AS	AS	05/23/22 18:14	II220505-2	100.0282	349	423.9	mg/L	75	85	115			M3
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	100.0282	349	436.9	mg/L	88	85	115	3	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	50		49.25	mg/L	99	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542600													
WG542600ICB	ICB	05/19/22 10:02				U	mg/L		-3	3			
WG542600ICV	ICV	05/19/22 10:02	WI220517-1	20.46		19.4	mg/L	95	90	110			
WG542600CCV1	CCV	05/19/22 15:00	WI220517-2	24.875		24.3	mg/L	98	90	110			
WG542600CCB1	CCB	05/19/22 15:00				U	mg/L		-3	3			
WG542600LFB	LFB	05/19/22 15:00	WI220415-3	9.95		10	mg/L	101	90	110			
L73155-01AS	AS	05/19/22 15:00	WI220415-3	9.95	5.1	14.6	mg/L	95	90	110			
WG542600CCV2	CCV	05/19/22 15:01	WI220517-2	24.875		24.3	mg/L	98	90	110			
WG542600CCB2	CCB	05/19/22 15:01				U	mg/L		-3	3			
WG542600CCV3	CCV	05/19/22 15:51	WI220517-2	24.875		24.1	mg/L	97	90	110			
WG542600CCB3	CCB	05/19/22 15:51				U	mg/L		-3	3			
L73130-02DUP	DUP	05/19/22 15:51			291	290.9	mg/L				0	20	
WG542600CCV4	CCV	05/19/22 15:54	WI220517-2	24.875		24.1	mg/L	97	90	110			
WG542600CCB4	CCB	05/19/22 15:54				U	mg/L		-3	3			
WG542600CCV5	CCV	05/19/22 15:57	WI220517-2	24.875		24.3	mg/L	98	90	110			
WG542600CCB5	CCB	05/19/22 15:57				U	mg/L		-3	3			
WG542600CCV6	CCV	05/19/22 16:00	WI220517-2	24.875		24.2	mg/L	97	90	110			
WG542600CCB6	CCB	05/19/22 16:00				U	mg/L		-3	3			

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		1.998	mg/L	100	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.015	0.015			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.025025		.027	mg/L	108	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	.1001		.099	mg/L	99	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.5005		.5183	mg/L	104	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		.999	mg/L	100	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.03	0.03			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		.988	mg/L	99	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.03	0.03			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.5005	U	.5097	mg/L	102	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.5005	U	.511	mg/L	102	85	115	0	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.985	mg/L	99	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L73169***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542780													
WG542780ICV	ICV	05/23/22 16:39	II220519-3	2		1.925	mg/L	96	95	105			
WG542780ICB	ICB	05/23/22 16:45				U	mg/L		-0.06	0.06			
WG542780PQV	PQV	05/23/22 16:48	II220429-4	.0501		.051	mg/L	102	70	130			
WG542780SIC	SIC	05/23/22 16:51	II220503-2	.1002		.094	mg/L	94	80	120			
WG542780LFB	LFB	05/23/22 16:58	II220505-2	.50045		.515	mg/L	103	85	115			
WG542780CCV1	CCV	05/23/22 17:28	II220520-1	1		.961	mg/L	96	90	110			
WG542780CCB1	CCB	05/23/22 17:31				U	mg/L		-0.06	0.06			
WG542780CCV2	CCV	05/23/22 18:05	II220520-1	1		.949	mg/L	95	90	110			
WG542780CCB2	CCB	05/23/22 18:08				U	mg/L		-0.06	0.06			
L73170-02AS	AS	05/23/22 18:14	II220505-2	.50045	U	.504	mg/L	101	85	115			
L73170-02ASD	ASD	05/23/22 18:18	II220505-2	.50045	U	.499	mg/L	100	85	115	1	20	
WG542780CCV3	CCV	05/23/22 18:27	II220520-1	1		.929	mg/L	93	90	110			
WG542780CCB3	CCB	05/23/22 18:30				U	mg/L		-0.06	0.06			

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

GCC Rio Grande ACZ Project ID: ***L73169***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L73169-01	WG542552	Chloride	SM4500Cl-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG542174	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG542780	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542697	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L73169-02	WG542174	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG542661	Residue, Filterable (TDS) @180C	SM2540C	H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
	WG542780	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542697	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

GCC Rio Grande ACZ Project ID: ***L73169***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L73169-03	WG542174	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG542661	Residue, Filterable (TDS) @180C	SM2540C	H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
	WG542780	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542697	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L73169***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L73169
Date Received: 05/12/2022 11:06
Received By:
Date Printed: 5/13/2022

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
6670	-1.4	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L73169
Date Received: 05/12/2022 11:06
Received By:
Date Printed: 5/13/2022

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ LABORATORIES | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L73169

CHAIN of CUSTODY

Report to:

Name: Amy Veek	Address: 3372 Lime Road
Company: GCC Rio Grande Inc	Pueblo CO 81004
E-mail: aveek@gcc.com	Telephone: 719-647-6861

Copy of Report to:

Name: Landon Beck	E-mail: lbeck@resourcehydrogeologic.com
Company: Resource Hydrogeologic	Telephone: (970) 459-4865

Invoice to:

Name: Amy Veek	Address: 3372 Lime Road
Company: GCC Rio Grande Inc	Pueblo CO 81004
E-mail: aveek@gcc.com	Telephone: 719-647-6861

Copy of Invoice to:

Name:	Address:
Company:	
E-mail:	Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ✓ NO

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes No ✓

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Amy Veek **Sampler's Site Information** **State** CO **Zip code** 81004 **Time Zone** MDT

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE

PO#: 105495

Reporting state for compliance testing:

Check box if samples include NRC licensed material?

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	GW-COmpliance
MW-13	5/10/2022 11:37	GW	3	✓
MW-2B	5/10/2022 12:00	GW	3	✓
MW-7	5/10/2022 12:38	GW	3	✓

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	5/10/22 16:33	[signature]	5/12/22 11:06

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L73169 Chain of Custod

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Revised Analytical Report

June 09, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Project ID: 105495
ACZ Project ID: L73303

Amy Veek:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 18, 2022 and originally reported on June 07, 2022. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L73303. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L73303. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 07, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Bill Lane has reviewed and approved this report

GCC Rio Grande
Project ID: 105495
Sample ID: MW-14

ACZ Sample ID: ***L73303-01***
Date Sampled: *05/17/22 09:32*
Date Received: *05/18/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	06/03/22 22:27	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00382			mg/L	0.0002	0.001	05/26/22 18:30	kja
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	06/03/22 22:27	wtc
Boron, dissolved	M200.7 ICP	2	1.26		*	mg/L	0.06	0.2	06/03/22 22:27	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	0.000066	B		mg/L	0.00005	0.00025	05/26/22 18:30	kja
Calcium, dissolved	M200.7 ICP	2	15.9			mg/L	0.2	1	06/03/22 22:27	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	06/03/22 22:27	wtc
Cobalt, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	06/03/22 22:27	wtc
Copper, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	06/03/22 22:27	wtc
Iron, dissolved	M200.7 ICP	2	<0.12	U	*	mg/L	0.12	0.3	06/03/22 22:27	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/26/22 18:30	kja
Lithium, dissolved	M200.7 ICP	2	0.404			mg/L	0.016	0.08	06/03/22 22:27	wtc
Magnesium, dissolved	M200.7 ICP	2	4.75			mg/L	0.4	2	06/03/22 22:27	wtc
Manganese, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	06/03/22 22:27	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/23/22 14:50	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	06/06/22 19:45	aeh
Potassium, dissolved	M200.7 ICP	2	4.62			mg/L	0.4	2	06/06/22 19:45	aeh
Selenium, dissolved	M200.8 ICP-MS	1	0.00124			mg/L	0.0001	0.00025	05/26/22 18:30	kja
Sodium, dissolved	M200.7 ICP	2	1390		*	mg/L	0.4	2	06/03/22 22:27	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	06/03/22 22:27	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U	*	mg/L	0.04	0.1	06/03/22 22:27	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1300			mg/L	2	20	05/27/22 0:00	emk
Carbonate as CaCO3		1	27.4			mg/L	2	20	05/27/22 0:00	emk
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Total Alkalinity		1	1320			mg/L	2	20	05/27/22 0:00	emk
Chloride	SM4500Cl-E	25	1410			mg/L	12.5	50	05/24/22 12:58	mjj1
Fluoride	SM4500F-C	1	3.10			mg/L	0.15	0.35	06/02/22 12:38	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.020	B		mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.020	B		mg/L	0.02	0.1	05/18/22 23:01	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	05/18/22 22:41	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	3610		*	mg/L	40	80	05/23/22 13:59	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	143		*	mg/L	5	25	05/24/22 9:43	bls

GCC Rio Grande
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L73303-02***
Date Sampled: *05/17/22 10:18*
Date Received: *05/18/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	06/03/22 22:30	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00321			mg/L	0.0002	0.001	05/26/22 18:36	kja
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	06/03/22 22:30	wtc
Boron, dissolved	M200.7 ICP	5	1.59		*	mg/L	0.15	0.5	06/03/22 22:30	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	05/26/22 18:36	kja
Calcium, dissolved	M200.7 ICP	5	82.6			mg/L	0.5	2.5	06/03/22 22:30	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	06/03/22 22:30	wtc
Cobalt, dissolved	M200.8 ICP-MS	1	0.00102			mg/L	0.00005	0.00025	05/26/22 18:36	kja
Cobalt, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	06/03/22 22:30	wtc
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	06/03/22 22:30	wtc
Iron, dissolved	M200.7 ICP	5	0.508	B	*	mg/L	0.3	0.75	06/03/22 22:30	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/26/22 18:36	kja
Lithium, dissolved	M200.7 ICP	5	0.337			mg/L	0.04	0.2	06/03/22 22:30	wtc
Magnesium, dissolved	M200.7 ICP	5	24.2			mg/L	1	5	06/03/22 22:30	wtc
Manganese, dissolved	M200.7 ICP	5	0.072	B		mg/L	0.05	0.25	06/03/22 22:30	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/23/22 14:51	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	06/06/22 19:49	aeh
Potassium, dissolved	M200.7 ICP	5	6.87			mg/L	1	5	06/06/22 19:49	aeh
Selenium, dissolved	M200.8 ICP-MS	1	0.00037			mg/L	0.0001	0.00025	05/26/22 18:36	kja
Sodium, dissolved	M200.7 ICP	5	1400		*	mg/L	1	5	06/03/22 22:30	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	06/03/22 22:30	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U	*	mg/L	0.1	0.25	06/03/22 22:30	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	627			mg/L	2	20	05/27/22 0:00	emk
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Total Alkalinity		1	627			mg/L	2	20	05/27/22 0:00	emk
Chloride	SM4500Cl-E	5	358			mg/L	2.5	10	05/24/22 12:59	mjj1
Fluoride	SM4500F-C	1	1.08			mg/L	0.15	0.35	06/02/22 12:43	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	05/18/22 22:42	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	05/18/22 22:42	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4170		*	mg/L	40	80	05/23/22 14:02	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	1990		*	mg/L	120	600	05/24/22 9:45	bls

GCC Rio Grande
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L73303-03***
Date Sampled: *05/17/22 10:32*
Date Received: *05/18/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	06/03/22 22:33	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	05/26/22 18:42	kja
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	06/03/22 22:33	wtc
Boron, dissolved	M200.7 ICP	5	1.19		*	mg/L	0.15	0.5	06/03/22 22:33	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	05/26/22 18:42	kja
Calcium, dissolved	M200.7 ICP	5	478			mg/L	0.5	2.5	06/03/22 22:33	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	06/03/22 22:33	wtc
Cobalt, dissolved	M200.8 ICP-MS	1	0.00929			mg/L	0.00005	0.00025	05/26/22 18:42	kja
Cobalt, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	06/03/22 22:33	wtc
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	06/03/22 22:33	wtc
Iron, dissolved	M200.7 ICP	5	<0.3	U	*	mg/L	0.3	0.75	06/03/22 22:33	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/26/22 18:42	kja
Lithium, dissolved	M200.7 ICP	5	0.356			mg/L	0.04	0.2	06/03/22 22:33	wtc
Magnesium, dissolved	M200.7 ICP	5	216			mg/L	1	5	06/03/22 22:33	wtc
Manganese, dissolved	M200.7 ICP	5	0.761			mg/L	0.05	0.25	06/03/22 22:33	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/23/22 14:52	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	06/06/22 19:52	aeh
Potassium, dissolved	M200.7 ICP	5	9.26			mg/L	1	5	06/06/22 19:52	aeh
Selenium, dissolved	M200.8 ICP-MS	1	0.00030			mg/L	0.0001	0.00025	05/27/22 14:52	kja
Sodium, dissolved	M200.7 ICP	5	694		*	mg/L	1	5	06/03/22 22:33	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	06/03/22 22:33	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U	*	mg/L	0.1	0.25	06/03/22 22:33	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	232			mg/L	2	20	05/27/22 0:00	emk
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Total Alkalinity		1	232			mg/L	2	20	05/27/22 0:00	emk
Chloride	SM4500Cl-E	1	44.4			mg/L	0.5	2	05/24/22 11:53	mjj1
Fluoride	SM4500F-C	1	0.44			mg/L	0.15	0.35	06/02/22 12:59	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.890			mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	1.33			mg/L	0.02	0.1	05/18/22 22:43	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.440			mg/L	0.01	0.05	05/18/22 22:43	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	4390	H	*	mg/L	100	200	05/28/22 12:42	eep
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	2980		*	mg/L	120	600	05/24/22 9:47	bls

GCC Rio Grande
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L73303-04***
Date Sampled: *05/17/22 11:01*
Date Received: *05/18/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	06/03/22 22:36	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00233			mg/L	0.0002	0.001	05/26/22 18:43	kja
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	06/03/22 22:36	wtc
Boron, dissolved	M200.7 ICP	1	0.795		*	mg/L	0.03	0.1	06/03/22 22:36	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	05/26/22 18:43	kja
Calcium, dissolved	M200.7 ICP	1	14.2			mg/L	0.1	0.5	06/03/22 22:36	wtc
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	06/03/22 22:36	wtc
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	06/03/22 22:36	wtc
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	06/03/22 22:36	wtc
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	06/03/22 22:36	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/26/22 18:43	kja
Lithium, dissolved	M200.7 ICP	1	0.174			mg/L	0.008	0.04	06/03/22 22:36	wtc
Magnesium, dissolved	M200.7 ICP	1	4.55			mg/L	0.2	1	06/03/22 22:36	wtc
Manganese, dissolved	M200.7 ICP	1	0.030	B		mg/L	0.01	0.05	06/03/22 22:36	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/23/22 14:52	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	06/06/22 19:55	aeh
Potassium, dissolved	M200.7 ICP	1	2.86			mg/L	0.2	1	06/06/22 19:55	aeh
Selenium, dissolved	M200.8 ICP-MS	1	0.00074			mg/L	0.0001	0.00025	05/27/22 14:58	kja
Sodium, dissolved	M200.7 ICP	1	707		*	mg/L	0.2	1	06/03/22 22:36	wtc
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	06/03/22 22:36	wtc
Zinc, dissolved	M200.7 ICP	1	<0.02	U	*	mg/L	0.02	0.05	06/03/22 22:36	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	448			mg/L	2	20	05/27/22 0:00	emk
Carbonate as CaCO3		1	23.6			mg/L	2	20	05/27/22 0:00	emk
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Total Alkalinity		1	472			mg/L	2	20	05/27/22 0:00	emk
Chloride	SM4500Cl-E	25	793			mg/L	12.5	50	05/24/22 12:59	mjj1
Fluoride	SM4500F-C	1	2.21			mg/L	0.15	0.35	06/02/22 13:03	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.323			mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	1.28			mg/L	0.02	0.1	05/18/22 22:46	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.957			mg/L	0.01	0.05	05/18/22 22:46	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	1810		*	mg/L	20	40	05/23/22 14:10	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	88.3		*	mg/L	5	25	05/24/22 9:43	bls

GCC Rio Grande
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L73303-05***
Date Sampled: *05/17/22 11:12*
Date Received: *05/18/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	06/03/22 22:51	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00078	B		mg/L	0.0002	0.001	05/26/22 18:45	kja
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	06/03/22 22:51	wtc
Boron, dissolved	M200.7 ICP	1	0.489		*	mg/L	0.03	0.1	06/03/22 22:51	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	05/26/22 18:45	kja
Calcium, dissolved	M200.7 ICP	1	52.4			mg/L	0.1	0.5	06/03/22 22:51	wtc
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	06/03/22 22:51	wtc
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	06/03/22 22:51	wtc
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	06/03/22 22:51	wtc
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	06/03/22 22:51	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/26/22 18:45	kja
Lithium, dissolved	M200.7 ICP	1	0.175			mg/L	0.008	0.04	06/03/22 22:51	wtc
Magnesium, dissolved	M200.7 ICP	1	28.9			mg/L	0.2	1	06/03/22 22:51	wtc
Manganese, dissolved	M200.7 ICP	1	0.022	B		mg/L	0.01	0.05	06/03/22 22:51	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/23/22 14:53	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	06/06/22 19:59	aeh
Potassium, dissolved	M200.7 ICP	1	3.41			mg/L	0.2	1	06/06/22 19:59	aeh
Selenium, dissolved	M200.8 ICP-MS	1	0.132		*	mg/L	0.0001	0.00025	05/26/22 18:45	kja
Sodium, dissolved	M200.7 ICP	1	513		*	mg/L	0.2	1	06/03/22 22:51	wtc
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	06/03/22 22:51	wtc
Zinc, dissolved	M200.7 ICP	1	<0.02	U	*	mg/L	0.02	0.05	06/03/22 22:51	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	821			mg/L	2	20	05/27/22 0:00	emk
Carbonate as CaCO3		1	20.4			mg/L	2	20	05/27/22 0:00	emk
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Total Alkalinity		1	842			mg/L	2	20	05/27/22 0:00	emk
Chloride	SM4500Cl-E	5	136			mg/L	2.5	10	05/24/22 13:00	mjj1
Fluoride	SM4500F-C	1	0.91			mg/L	0.15	0.35	06/02/22 13:08	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.030	B		mg/L	0.02	0.1	05/18/22 22:48	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.033	B		mg/L	0.01	0.05	05/18/22 22:48	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	1580		*	mg/L	20	40	05/23/22 14:12	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	25	330		*	mg/L	25	125	05/24/22 9:47	bls

GCC Rio Grande
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L73303-06***
Date Sampled: *05/17/22 11:33*
Date Received: *05/18/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	06/03/22 22:54	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	05/26/22 18:47	kja
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	06/03/22 22:54	wtc
Boron, dissolved	M200.7 ICP	5	0.315	B	*	mg/L	0.15	0.5	06/03/22 22:54	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	05/26/22 18:47	kja
Calcium, dissolved	M200.7 ICP	5	440			mg/L	0.5	2.5	06/03/22 22:54	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	06/03/22 22:54	wtc
Cobalt, dissolved	M200.8 ICP-MS	1	0.0124			mg/L	0.00005	0.00025	05/26/22 18:47	kja
Cobalt, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	06/03/22 22:54	wtc
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	06/03/22 22:54	wtc
Iron, dissolved	M200.7 ICP	5	<0.3	U	*	mg/L	0.3	0.75	06/03/22 22:54	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/26/22 18:47	kja
Lithium, dissolved	M200.7 ICP	5	0.464			mg/L	0.04	0.2	06/03/22 22:54	wtc
Magnesium, dissolved	M200.7 ICP	5	422			mg/L	1	5	06/03/22 22:54	wtc
Manganese, dissolved	M200.7 ICP	5	0.200	B		mg/L	0.05	0.25	06/03/22 22:54	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/23/22 14:54	mlh
Nickel, dissolved	M200.7 ICP	5	0.121	B		mg/L	0.04	0.2	06/06/22 20:09	aeh
Potassium, dissolved	M200.7 ICP	5	10.9			mg/L	1	5	06/06/22 20:09	aeh
Selenium, dissolved	M200.8 ICP-MS	1	0.0538		*	mg/L	0.0001	0.00025	05/26/22 18:47	kja
Sodium, dissolved	M200.7 ICP	5	522		*	mg/L	1	5	06/03/22 22:54	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	06/03/22 22:54	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U	*	mg/L	0.1	0.25	06/03/22 22:54	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	461			mg/L	2	20	05/27/22 0:00	emk
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Total Alkalinity		1	461			mg/L	2	20	05/27/22 0:00	emk
Chloride	SM4500Cl-E	1	89.1			mg/L	0.5	2	05/24/22 11:55	mjj1
Fluoride	SM4500F-C	1	0.57			mg/L	0.15	0.35	06/02/22 13:13	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		3.24			mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	3.25			mg/L	0.02	0.1	05/18/22 22:54	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.015	B		mg/L	0.01	0.05	05/18/22 22:54	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5190		*	mg/L	40	80	05/23/22 14:15	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3140		*	mg/L	120	600	05/24/22 9:47	bls

GCC Rio Grande
Project ID: 105495
Sample ID: MW-8

ACZ Sample ID: ***L73303-07***
Date Sampled: *05/17/22 11:50*
Date Received: *05/18/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	06/03/22 22:57	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00427			mg/L	0.0002	0.001	05/26/22 18:53	kja
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	06/03/22 22:57	wtc
Boron, dissolved	M200.7 ICP	2	0.882		*	mg/L	0.06	0.2	06/03/22 22:57	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	05/26/22 18:53	kja
Calcium, dissolved	M200.7 ICP	2	77.1			mg/L	0.2	1	06/03/22 22:57	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	06/03/22 22:57	wtc
Cobalt, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	06/03/22 22:57	wtc
Copper, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	06/03/22 22:57	wtc
Iron, dissolved	M200.7 ICP	2	<0.12	U	*	mg/L	0.12	0.3	06/03/22 22:57	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	05/26/22 18:53	kja
Lithium, dissolved	M200.7 ICP	2	0.388			mg/L	0.016	0.08	06/03/22 22:57	wtc
Magnesium, dissolved	M200.7 ICP	2	28.9			mg/L	0.4	2	06/03/22 22:57	wtc
Manganese, dissolved	M200.7 ICP	2	0.299			mg/L	0.02	0.1	06/03/22 22:57	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	05/23/22 14:55	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	06/06/22 20:12	aeh
Potassium, dissolved	M200.7 ICP	2	5.30			mg/L	0.4	2	06/06/22 20:12	aeh
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	05/27/22 15:00	kja
Sodium, dissolved	M200.7 ICP	2	1180		*	mg/L	0.4	2	06/03/22 22:57	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	06/03/22 22:57	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U	*	mg/L	0.04	0.1	06/03/22 22:57	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1130			mg/L	2	20	05/27/22 0:00	emk
Carbonate as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	05/27/22 0:00	emk
Total Alkalinity		1	1130			mg/L	2	20	05/27/22 0:00	emk
Chloride	SM4500Cl-E	5	315			mg/L	2.5	10	05/24/22 13:00	mjj1
Fluoride	SM4500F-C	1	1.01			mg/L	0.15	0.35	06/02/22 13:17	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	06/09/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	05/18/22 22:55	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U		mg/L	0.01	0.05	05/18/22 22:55	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	3630		*	mg/L	40	80	05/23/22 14:17	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	1260		*	mg/L	120	600	05/24/22 9:47	bls

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543160													
WG543160PBW1	PBW	05/27/22 16:53				9	mg/L		-20	20			
WG543160LCSW3	LCSW	05/27/22 17:12	WC220513-7	820.0001		791.2	mg/L	96	90	110			
L73303-05DUP	DUP	05/27/22 20:47			842	823.4	mg/L				2	20	
WG543160LCSW6	LCSW	05/27/22 21:06	WC220513-7	820.0001		791.6	mg/L	97	90	110			
WG543160PBW2	PBW	05/27/22 21:12				5	mg/L		-20	20			
L73318-03DUP	DUP	05/27/22 22:46			776	777	mg/L				0	20	
WG543160LCSW9	LCSW	05/28/22 0:26	WC220513-7	820.0001		782.3	mg/L	95	90	110			
WG543160PBW3	PBW	05/28/22 0:32				6.8	mg/L		-20	20			
WG543160LCSW12	LCSW	05/28/22 3:41	WC220513-7	820.0001		801	mg/L	98	90	110			
WG543160PBW4	PBW	05/28/22 3:47				5.5	mg/L		-20	20			
WG543160LCSW15	LCSW	05/28/22 6:48	WC220513-7	820.0001		805.5	mg/L	98	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		1.994	mg/L	100	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.15	0.15			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.2502		.245	mg/L	98	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	200.4102		208.5	mg/L	104	1	200			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	1.0008		1.066	mg/L	107	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.017	mg/L	102	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.15	0.15			
L73303-04AS	AS	06/03/22 22:39	II220505-2	1.0008	U	1.1	mg/L	110	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	1.0008	U	1.153	mg/L	115	85	115	5	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		.979	mg/L	98	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.15	0.15			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.01	mg/L	101	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.15	0.15			

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543092													
WG543092ICV	ICV	05/26/22 17:57	MS220502-1	.05		.0511	mg/L	102	90	110			
WG543092ICB	ICB	05/26/22 17:59				U	mg/L		-0.00044	0.00044			
WG543092LFB	LFB	05/26/22 18:01	MS220506-2	.05005		.05083	mg/L	102	85	115			
WG543092CCV1	CCV	05/26/22 18:16	MS220502-5	.1001		.10099	mg/L	101	90	110			
WG543092CCB1	CCB	05/26/22 18:17				U	mg/L		-0.0006	0.0006			
L73303-01AS	AS	05/26/22 18:32	MS220506-2	.05005	.00382	.05858	mg/L	109	70	130			
L73303-01ASD	ASD	05/26/22 18:34	MS220506-2	.05005	.00382	.06077	mg/L	114	70	130	4	20	
WG543092CCV2	CCV	05/26/22 18:38	MS220502-5	.1001		.10001	mg/L	100	90	110			E6
WG543092CCB2	CCB	05/26/22 18:40				U	mg/L		-0.0006	0.0006			
L73303-06AS	AS	05/26/22 18:49	MS220506-2	.05005	U	.05433	mg/L	109	70	130			
L73303-06ASD	ASD	05/26/22 18:51	MS220506-2	.05005	U	.05544	mg/L	111	70	130	2	20	
WG543092CCV3	CCV	05/26/22 18:55	MS220502-5	.1001		.0988	mg/L	99	90	110			
WG543092CCB3	CCB	05/26/22 18:56				U	mg/L		-0.0006	0.0006			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		1.946	mg/L	97	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.03	0.03			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.05005		.053	mg/L	106	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	.1001		.102	mg/L	102	80	120			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	.501		.51	mg/L	102	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.013	mg/L	101	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.03	0.03			
L73303-04AS	AS	06/03/22 22:39	II220505-2	.501	U	.514	mg/L	103	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	.501	U	.536	mg/L	107	85	115	4	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		1.005	mg/L	101	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.03	0.03			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.019	mg/L	102	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.03	0.03			

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		2.088	mg/L	104	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.09	0.09			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.1001		.106	mg/L	106	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	.1001		.108	mg/L	108	80	120			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	.5005		.56	mg/L	112	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.082	mg/L	108	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.09	0.09			
L73303-04AS	AS	06/03/22 22:39	II220505-2	.5005	.795	1.315	mg/L	104	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	.5005	.795	1.377	mg/L	116	85	115	5	20	MA
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		1.073	mg/L	107	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.09	0.09			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.089	mg/L	109	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.09	0.09			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543092													
WG543092ICV	ICV	05/26/22 17:57	MS220502-1	.05		.051139	mg/L	102	90	110			
WG543092ICB	ICB	05/26/22 17:59				U	mg/L		-0.00011	0.00011			
WG543092LFB	LFB	05/26/22 18:01	MS220506-2	.05005		.049413	mg/L	99	85	115			
WG543092CCV1	CCV	05/26/22 18:16	MS220502-5	.1001		.100038	mg/L	100	90	110			
WG543092CCB1	CCB	05/26/22 18:17				U	mg/L		-0.00015	0.00015			
L73303-01AS	AS	05/26/22 18:32	MS220506-2	.05005	.000066	.046468	mg/L	93	70	130			
L73303-01ASD	ASD	05/26/22 18:34	MS220506-2	.05005	.000066	.048344	mg/L	96	70	130	4	20	
WG543092CCV2	CCV	05/26/22 18:38	MS220502-5	.1001		.098747	mg/L	99	90	110			
WG543092CCB2	CCB	05/26/22 18:40				U	mg/L		-0.00015	0.00015			
L73303-06AS	AS	05/26/22 18:49	MS220506-2	.05005	U	.046872	mg/L	94	70	130			
L73303-06ASD	ASD	05/26/22 18:51	MS220506-2	.05005	U	.047108	mg/L	94	70	130	1	20	
WG543092CCV3	CCV	05/26/22 18:55	MS220502-5	.1001		.099373	mg/L	99	90	110			
WG543092CCB3	CCB	05/26/22 18:56				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	100		101.18	mg/L	101	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.3	0.3			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.5003		.54	mg/L	108	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	200.6203		201.4	mg/L	100	1	200			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	67.9908		72.14	mg/L	106	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	50		52.27	mg/L	105	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.3	0.3			
L73303-04AS	AS	06/03/22 22:39	II220505-2	67.9908	14.2	86.21	mg/L	106	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	67.9908	14.2	89.74	mg/L	111	85	115	4	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	50		51.76	mg/L	104	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.3	0.3			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	50		52.64	mg/L	105	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.3	0.3			

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542815													
WG542815ICV	ICV	05/24/22 11:47	WI220502-12	54.945		55.42	mg/L	101	90	110			
WG542815ICB	ICB	05/24/22 11:48				U	mg/L		-1.5	1.5			
WG542815LFB1	LFB	05/24/22 11:49	WI220328-1	29.97		29.25	mg/L	98	90	110			
L73226-01AS	AS	05/24/22 11:50	WI220328-1	29.97	11.4	41.7	mg/L	101	90	110			
L73226-02DUP	DUP	05/24/22 11:51			12.1	11.92	mg/L				1	20	
WG542815CCV1	CCV	05/24/22 11:54	WI220323-1	49.95		52.32	mg/L	105	90	110			
WG542815CCB1	CCB	05/24/22 11:54				U	mg/L		-1.5	1.5			
WG542815CCV2	CCV	05/24/22 12:00	WI220323-1	49.95		51.46	mg/L	103	90	110			
WG542815CCB2	CCB	05/24/22 12:00				U	mg/L		-1.5	1.5			
WG542815LFB2	LFB	05/24/22 12:04	WI220328-1	29.97		29.61	mg/L	99	90	110			
WG542815CCV3	CCV	05/24/22 12:06	WI220323-1	49.95		51.83	mg/L	104	90	110			
WG542815CCB3	CCB	05/24/22 12:06				U	mg/L		-1.5	1.5			
WG542815CCV4	CCV	05/24/22 12:11	WI220323-1	49.95		51.56	mg/L	103	90	110			
WG542815CCB4	CCB	05/24/22 12:11				.91	mg/L		-1.5	1.5			
WG542815CCV10	CCV	05/24/22 12:57	WI220323-1	49.95		51.29	mg/L	103	90	110			
WG542815CCB10	CCB	05/24/22 12:58				.72	mg/L		-1.5	1.5			
WG542815CCV11	CCV	05/24/22 13:05	WI220323-1	49.95		52.22	mg/L	105	90	110			
WG542815CCB11	CCB	05/24/22 13:06				.85	mg/L		-1.5	1.5			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		2.02	mg/L	101	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.06	0.06			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.05005		.052	mg/L	104	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	.1001		.093	mg/L	93	80	120			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	.501		.535	mg/L	107	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.046	mg/L	105	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.06	0.06			
L73303-04AS	AS	06/03/22 22:39	II220505-2	.501	U	.538	mg/L	107	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	.501	U	.566	mg/L	113	85	115	5	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		1.039	mg/L	104	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.06	0.06			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.049	mg/L	105	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2.01		2.065	mg/L	103	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.06	0.06			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.05005		.051	mg/L	102	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	.1001		.098	mg/L	98	80	120			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	.5005		.528	mg/L	105	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1.005		1.08	mg/L	107	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.06	0.06			
L73303-04AS	AS	06/03/22 22:39	II220505-2	.5005	U	.533	mg/L	106	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	.5005	U	.558	mg/L	111	85	115	5	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1.005		1.083	mg/L	108	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.06	0.06			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1.005		1.1	mg/L	109	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543092													
WG543092ICV	ICV	05/26/22 17:57	MS220502-1	.05		.051325	mg/L	103	90	110			
WG543092ICB	ICB	05/26/22 17:59				U	mg/L		-0.00011	0.00011			
WG543092LFB	LFB	05/26/22 18:01	MS220506-2	.05005		.049753	mg/L	99	85	115			
WG543092CCV1	CCV	05/26/22 18:16	MS220502-5	.1001		.101399	mg/L	101	90	110			
WG543092CCB1	CCB	05/26/22 18:17				U	mg/L		-0.00015	0.00015			
L73303-01AS	AS	05/26/22 18:32	MS220506-2	.05005	.000335	.049761	mg/L	99	70	130			
L73303-01ASD	ASD	05/26/22 18:34	MS220506-2	.05005	.000335	.051428	mg/L	102	70	130	3	20	
WG543092CCV2	CCV	05/26/22 18:38	MS220502-5	.1001		.107489	mg/L	107	90	110			
WG543092CCB2	CCB	05/26/22 18:40				U	mg/L		-0.00015	0.00015			
L73303-06AS	AS	05/26/22 18:49	MS220506-2	.05005	.0124	.060583	mg/L	96	70	130			
L73303-06ASD	ASD	05/26/22 18:51	MS220506-2	.05005	.0124	.060663	mg/L	96	70	130	0	20	
WG543092CCV3	CCV	05/26/22 18:55	MS220502-5	.1001		.104063	mg/L	104	90	110			
WG543092CCB3	CCB	05/26/22 18:56				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		2.072	mg/L	104	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.03	0.03			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.05		.053	mg/L	106	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	.1		.107	mg/L	107	80	120			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	.5		.539	mg/L	108	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.073	mg/L	107	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.03	0.03			
L73303-04AS	AS	06/03/22 22:39	II220505-2	.5	U	.55	mg/L	110	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	.5	U	.576	mg/L	115	85	115	5	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		1.066	mg/L	107	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.03	0.03			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.082	mg/L	108	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.03	0.03			

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543410													
WG543410ICV	ICV	06/02/22 9:56	WC220602-7	2.008		2.1	mg/L	105	90	110			
WG543410ICB	ICB	06/02/22 10:01				U	mg/L		-0.3	0.3			
WG543410PQV	PQV	06/02/22 10:05	WC220520-8	.3514		.39	mg/L	111	70	130			
WG543410LFB1	LFB	06/02/22 10:08	WC220104-2	5.02		5.18	mg/L	103	90	110			
WG543410CCV1	CCV	06/02/22 10:44	WC220602-7	2.008		2.16	mg/L	108	90	110			
WG543410CCB1	CCB	06/02/22 10:52				U	mg/L		-0.3	0.3			
L73270-01AS	AS	06/02/22 12:19	WC220104-2	2008	U	2009	mg/L	100	90	110			
L73270-01ASD	ASD	06/02/22 12:24	WC220104-2	2008	U	1945.64	mg/L	97	90	110	3	20	
WG543410CCV2	CCV	06/02/22 12:47	WC220602-7	2.008		2.19	mg/L	109	90	110			
WG543410CCB2	CCB	06/02/22 12:55				U	mg/L		-0.3	0.3			
WG543410LFB2	LFB	06/02/22 13:21	WC220104-2	5.02		5.21	mg/L	104	90	110			
WG543410CCV3	CCV	06/02/22 13:40	WC220602-7	2.008		2.15	mg/L	107	90	110			
WG543410CCB3	CCB	06/02/22 13:48				U	mg/L		-0.3	0.3			
WG543410CCV4	CCV	06/02/22 14:46	WC220602-7	2.008		2.19	mg/L	109	90	110			
WG543410CCB4	CCB	06/02/22 14:54				U	mg/L		-0.3	0.3			
WG543410CCV5	CCV	06/02/22 16:13	WC220602-7	2.008		2.14	mg/L	107	90	110			
WG543410CCB5	CCB	06/02/22 16:21				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		2.04	mg/L	102	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.18	0.18			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.150195		.143	mg/L	95	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	200.410195		194.5	mg/L	97	1	200			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	1.0013		1.084	mg/L	108	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.063	mg/L	106	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.18	0.18			
L73303-04AS	AS	06/03/22 22:39	II220505-2	1.0013	U	1.083	mg/L	108	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	1.0013	U	1.157	mg/L	116	85	115	7	20	MA
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		1.053	mg/L	105	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.18	0.18			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.068	mg/L	107	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.18	0.18			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543092													
WG543092ICV	ICV	05/26/22 17:57	MS220502-1	.05		.05022	mg/L	100	90	110			
WG543092ICB	ICB	05/26/22 17:59				U	mg/L		-0.00022	0.00022			
WG543092LFB	LFB	05/26/22 18:01	MS220506-2	.0501		.04907	mg/L	98	85	115			
WG543092CCV1	CCV	05/26/22 18:16	MS220502-5	.2505		.24802	mg/L	99	90	110			
WG543092CCB1	CCB	05/26/22 18:17				U	mg/L		-0.0003	0.0003			
L73303-01AS	AS	05/26/22 18:32	MS220506-2	.0501	U	.05037	mg/L	101	70	130			
L73303-01ASD	ASD	05/26/22 18:34	MS220506-2	.0501	U	.05286	mg/L	106	70	130	5	20	
WG543092CCV2	CCV	05/26/22 18:38	MS220502-5	.2505		.24804	mg/L	99	90	110			
WG543092CCB2	CCB	05/26/22 18:40				U	mg/L		-0.0003	0.0003			
L73303-06AS	AS	05/26/22 18:49	MS220506-2	.0501	U	.04985	mg/L	100	70	130			
L73303-06ASD	ASD	05/26/22 18:51	MS220506-2	.0501	U	.04984	mg/L	99	70	130	0	20	
WG543092CCV3	CCV	05/26/22 18:55	MS220502-5	.2505		.24028	mg/L	96	90	110			
WG543092CCB3	CCB	05/26/22 18:56				U	mg/L		-0.0003	0.0003			

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		2.04	mg/L	102	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.024	0.024			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.03992		.0412	mg/L	103	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	.0998		.1082	mg/L	108	80	120			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	.998		1.025	mg/L	103	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.057	mg/L	106	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.024	0.024			
L73303-04AS	AS	06/03/22 22:39	II220505-2	.998	.174	1.221	mg/L	105	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	.998	.174	1.269	mg/L	110	85	115	4	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		1.045	mg/L	105	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.024	0.024			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.057	mg/L	106	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.024	0.024			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	100		97.45	mg/L	97	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.6	0.6			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	1.0001		1.16	mg/L	116	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	201.0201		206.7	mg/L	103	1	200			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	49.99922		50.98	mg/L	102	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	50		49.99	mg/L	100	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.6	0.6			
L73303-04AS	AS	06/03/22 22:39	II220505-2	49.99922	4.55	55.42	mg/L	102	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	49.99922	4.55	57.91	mg/L	107	85	115	4	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	50		49.38	mg/L	99	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.6	0.6			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	50		50.59	mg/L	101	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.6	0.6			

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		2.007	mg/L	100	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.03	0.03			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.0498		.054	mg/L	108	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	49.9498		50.63	mg/L	101	1	200			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	.499		.536	mg/L	107	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.049	mg/L	105	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.03	0.03			
L73303-04AS	AS	06/03/22 22:39	II220505-2	.499	.03	.573	mg/L	109	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	.499	.03	.596	mg/L	113	85	115	4	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		1.026	mg/L	103	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.03	0.03			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.052	mg/L	105	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542728													
WG542728ICV	ICV	05/23/22 13:51	HG220523-3	.005005		.00509	mg/L	102	95	105			
WG542728ICB	ICB	05/23/22 13:52				U	mg/L		-0.0002	0.0002			
WG542729													
WG542729CCV1	CCV	05/23/22 14:25	HG220523-3	.005005		.00513	mg/L	102	90	110			
WG542729CCB1	CCB	05/23/22 14:26				U	mg/L		-0.0002	0.0002			
WG542729PQV	PQV	05/23/22 14:27	HG220523-5	.001001		.00095	mg/L	95	70	130			
WG542729LRB	LRB	05/23/22 14:28				U	mg/L		-0.00044	0.00044			
WG542729LFB	LFB	05/23/22 14:29	HG220523-6	.002002		.00194	mg/L	97	85	115			
WG542729CCV2	CCV	05/23/22 14:36	HG220523-3	.005005		.00503	mg/L	100	90	110			
WG542729CCB2	CCB	05/23/22 14:37				U	mg/L		-0.0002	0.0002			
L73270-03LFM	LFM	05/23/22 14:46	HG220523-6	.002002	U	.00191	mg/L	95	85	115			
L73270-03LFMD	LFMD	05/23/22 14:47	HG220523-6	.002002	U	.00194	mg/L	97	85	115	2	20	
WG542729CCV3	CCV	05/23/22 14:48	HG220523-3	.005005		.00504	mg/L	101	90	110			
WG542729CCB3	CCB	05/23/22 14:49				U	mg/L		-0.0002	0.0002			
WG542729CCV4	CCV	05/23/22 14:56	HG220523-3	.005005		.00504	mg/L	101	90	110			
WG542729CCB4	CCB	05/23/22 14:57				U	mg/L		-0.0002	0.0002			

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543681													
WG543681ICV	ICV	06/06/22 18:43	II220519-3	2		1.91	mg/L	96	95	105			
WG543681ICB	ICB	06/06/22 18:49				.009	mg/L		-0.024	0.024			
WG543681PQV	PQV	06/06/22 18:53	II220602-4	.04004		.0372	mg/L	93	70	130			
WG543681SIC	SIC	06/06/22 18:56	II220503-2	.1001		.0915	mg/L	91	80	120			
WG543681LFB	LFB	06/06/22 19:03	II220602-7	.5005		.4994	mg/L	100	85	115			
L73297-03AS	AS	06/06/22 19:22	II220602-7	.5005	U	.5108	mg/L	102	85	115			
L73297-03ASD	ASD	06/06/22 19:26	II220602-7	.5005	U	.4993	mg/L	100	85	115	2	20	
WG543681CCV1	CCV	06/06/22 19:35	II220520-1	1		.9873	mg/L	99	90	110			
WG543681CCB1	CCB	06/06/22 19:39				U	mg/L		-0.024	0.024			
L73303-05AS	AS	06/06/22 20:02	II220602-7	.5005	U	.5071	mg/L	101	85	115			
L73303-05ASD	ASD	06/06/22 20:06	II220602-7	.5005	U	.4988	mg/L	100	85	115	2	20	
WG543681CCV2	CCV	06/06/22 20:16	II220520-1	1		.9771	mg/L	98	90	110			
WG543681CCB2	CCB	06/06/22 20:19				U	mg/L		-0.024	0.024			
WG543681CCV3	CCV	06/06/22 20:29	II220520-1	1		.9673	mg/L	97	90	110			
WG543681CCB3	CCB	06/06/22 20:32				U	mg/L		-0.024	0.024			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542537													
WG542537ICV	ICV	05/18/22 22:17	WI220301-7	2.4161		2.234	mg/L	92	90	110			
WG542537ICB	ICB	05/18/22 22:19				U	mg/L		-0.02	0.02			
WG542537LFB	LFB	05/18/22 22:22	WI220401-10	2		1.98	mg/L	99	90	110			
L73300-01AS	AS	05/18/22 22:25	WI220401-10	2	.815	2.763	mg/L	97	90	110			
L73300-02DUP	DUP	05/18/22 22:27			.993	.991	mg/L				0	20	
WG542537CCV1	CCV	05/18/22 22:32	WI220513-1	2		1.91	mg/L	96	90	110			
WG542537CCB1	CCB	05/18/22 22:36				U	mg/L		-0.02	0.02			
L73303-03AS	AS	05/18/22 22:44	WI220401-10	2	1.33	3.35	mg/L	101	90	110			
L73303-04DUP	DUP	05/18/22 22:47			1.28	1.274	mg/L				0	20	
WG542537CCV2	CCV	05/18/22 22:49	WI220513-1	2		2.013	mg/L	101	90	110			
WG542537CCB2	CCB	05/18/22 22:53				U	mg/L		-0.02	0.02			
WG542537CCV3	CCV	05/18/22 23:04	WI220513-1	2		2.015	mg/L	101	90	110			
WG542537CCB3	CCB	05/18/22 23:07				U	mg/L		-0.02	0.02			

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542537													
WG542537ICV	ICV	05/18/22 22:17	WI220301-7	.6089		.582	mg/L	96	90	110			
WG542537ICB	ICB	05/18/22 22:19				U	mg/L		-0.01	0.01			
WG542537LFB	LFB	05/18/22 22:22	WI220401-10	1		1.011	mg/L	101	90	110			
L73300-01AS	AS	05/18/22 22:25	WI220401-10	1	.013	1.027	mg/L	101	90	110			
L73300-02DUP	DUP	05/18/22 22:27			.012	.012	mg/L				0	20	RA
WG542537CCV1	CCV	05/18/22 22:32	WI220513-1	1		1.015	mg/L	102	90	110			
WG542537CCB1	CCB	05/18/22 22:36				U	mg/L		-0.01	0.01			
L73303-03AS	AS	05/18/22 22:44	WI220401-10	1	.44	1.509	mg/L	107	90	110			
L73303-04DUP	DUP	05/18/22 22:47			.957	.961	mg/L				0	20	
WG542537CCV2	CCV	05/18/22 22:49	WI220513-1	1		1.016	mg/L	102	90	110			
WG542537CCB2	CCB	05/18/22 22:53				U	mg/L		-0.01	0.01			
WG542537CCV3	CCV	05/18/22 23:04	WI220513-1	1		1.016	mg/L	102	90	110			
WG542537CCB3	CCB	05/18/22 23:07				U	mg/L		-0.01	0.01			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543681													
WG543681ICV	ICV	06/06/22 18:43	II220519-3	20		19.3	mg/L	97	95	105			
WG543681ICB	ICB	06/06/22 18:49				U	mg/L		-0.6	0.6			
WG543681PQV	PQV	06/06/22 18:53	II220602-4	1.005		1.05	mg/L	104	70	130			
WG543681SIC	SIC	06/06/22 18:56	II220503-2	1.005		1.04	mg/L	103	80	120			
WG543681LFB	LFB	06/06/22 19:03	II220602-7	99.96218		100.6	mg/L	101	85	115			
L73297-03AS	AS	06/06/22 19:22	II220602-7	99.96218	.85	101.9	mg/L	101	85	115			
L73297-03ASD	ASD	06/06/22 19:26	II220602-7	99.96218	.85	101.2	mg/L	100	85	115	1	20	
WG543681CCV1	CCV	06/06/22 19:35	II220520-1	10		9.96	mg/L	100	90	110			
WG543681CCB1	CCB	06/06/22 19:39				U	mg/L		-0.6	0.6			
L73303-05AS	AS	06/06/22 20:02	II220602-7	99.96218	3.41	104.2	mg/L	101	85	115			
L73303-05ASD	ASD	06/06/22 20:06	II220602-7	99.96218	3.41	103.5	mg/L	100	85	115	1	20	
WG543681CCV2	CCV	06/06/22 20:16	II220520-1	10		9.86	mg/L	99	90	110			
WG543681CCB2	CCB	06/06/22 20:19				U	mg/L		-0.6	0.6			
WG543681CCV3	CCV	06/06/22 20:29	II220520-1	10		9.71	mg/L	97	90	110			
WG543681CCB3	CCB	06/06/22 20:32				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542775													
WG542775PBW	PBW	05/23/22 13:36				U	mg/L		-20	20			
WG542775LCSW	LCSW	05/23/22 13:38	PCN65840	1000		994	mg/L	99	80	120			
L73329-06DUP	DUP	05/23/22 14:36			184	182	mg/L				1	10	RA
WG543182													
WG543182PBW	PBW	05/28/22 12:15				U	mg/L		-20	20			
WG543182LCSW	LCSW	05/28/22 12:16	PCN65841	1000		982	mg/L	98	80	120			
L73305-01DUP	DUP	05/28/22 12:46			32	32	mg/L				0	10	RA

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543092													
WG543092ICV	ICV	05/26/22 17:57	MS220502-1	.05		.0507	mg/L	101	90	110			
WG543092ICB	ICB	05/26/22 17:59				U	mg/L		-0.00022	0.00022			
WG543092LFB	LFB	05/26/22 18:01	MS220506-2	.05		.04889	mg/L	98	85	115			
WG543092CCV1	CCV	05/26/22 18:16	MS220502-5	.25		.24918	mg/L	100	90	110			
WG543092CCB1	CCB	05/26/22 18:17				U	mg/L		-0.0003	0.0003			
L73303-01AS	AS	05/26/22 18:32	MS220506-2	.05	.00124	.05355	mg/L	105	70	130			
L73303-01ASD	ASD	05/26/22 18:34	MS220506-2	.05	.00124	.05394	mg/L	105	70	130	1	20	
WG543092CCV2	CCV	05/26/22 18:38	MS220502-5	.25		.23381	mg/L	94	90	110			E6
WG543092CCB2	CCB	05/26/22 18:40				U	mg/L		-0.0003	0.0003			E6
L73303-06AS	AS	05/26/22 18:49	MS220506-2	.05	.0538	.09956	mg/L	92	70	130			
L73303-06ASD	ASD	05/26/22 18:51	MS220506-2	.05	.0538	.0939	mg/L	80	70	130	6	20	
WG543092CCV3	CCV	05/26/22 18:55	MS220502-5	.25		.2398	mg/L	96	90	110			E6
WG543092CCB3	CCB	05/26/22 18:56				.00311	mg/L		-0.0003	0.0003			BB
WG543142													
WG543142ICV	ICV	05/27/22 14:26	MS220502-1	.05		.04975	mg/L	100	90	110			
WG543142ICB	ICB	05/27/22 14:28				U	mg/L		-0.00022	0.00022			
WG543142LFB	LFB	05/27/22 14:30	MS220506-2	.05		.04987	mg/L	100	85	115			
WG543142CCV1	CCV	05/27/22 14:45	MS220502-5	.25		.25692	mg/L	103	90	110			
WG543142CCB1	CCB	05/27/22 14:47				U	mg/L		-0.0003	0.0003			
L73303-03AS	AS	05/27/22 14:54	MS220506-2	.05	.0003	.0527	mg/L	105	70	130			
L73303-03ASD	ASD	05/27/22 14:57	MS220506-2	.05	.0003	.05723	mg/L	114	70	130	8	20	
L73303-07AS	AS	05/27/22 15:02	MS220506-2	.05	U	.05448	mg/L	109	70	130			
L73303-07ASD	ASD	05/27/22 15:04	MS220506-2	.05	U	.05535	mg/L	111	70	130	2	20	
WG543142CCV2	CCV	05/27/22 15:06	MS220502-5	.25		.23862	mg/L	95	90	110			
WG543142CCB2	CCB	05/27/22 15:08				U	mg/L		-0.0003	0.0003			

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	100		100.48	mg/L	100	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.6	0.6			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	1.002		1.06	mg/L	106	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	1.002		1.14	mg/L	114	80	120			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	100.0282		103.6	mg/L	104	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	50		51.85	mg/L	104	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.6	0.6			
L73303-04AS	AS	06/03/22 22:39	II220505-2	100.0282	707	760.6	mg/L	54	85	115			M3
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	100.0282	707	784.8	mg/L	78	85	115	3	20	M3
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	50		51.78	mg/L	104	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.6	0.6			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	50		52.59	mg/L	105	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG542820													
WG542820ICB	ICB	05/24/22 8:54				U	mg/L		-3	3			
WG542820ICV	ICV	05/24/22 8:54	WI220517-1	20.46		19.6	mg/L	96	90	110			
WG542820CCV1	CCV	05/24/22 9:06	WI220517-2	24.875		24.6	mg/L	99	90	110			
WG542820CCB1	CCB	05/24/22 9:06				U	mg/L		-3	3			
WG542820LFB	LFB	05/24/22 9:06	WI220415-3	9.95		9.9	mg/L	99	90	110			
WG542820CCV2	CCV	05/24/22 9:10	WI220517-2	24.875		24.9	mg/L	100	90	110			
WG542820CCB2	CCB	05/24/22 9:10				U	mg/L		-3	3			
L73303-01DUP	DUP	05/24/22 9:43			143	141.7	mg/L				1	20	
L73303-02AS	AS	05/24/22 9:45	SO4TURB	10.0000008	1990	1993.8	mg/L	38	90	110			M3
WG542820CCV3	CCV	05/24/22 9:45	WI220517-2	24.875		24.3	mg/L	98	90	110			
WG542820CCB3	CCB	05/24/22 9:45				U	mg/L		-3	3			
WG542820CCV4	CCV	05/24/22 9:48	WI220517-2	24.875		24.6	mg/L	99	90	110			
WG542820CCB4	CCB	05/24/22 9:48				U	mg/L		-3	3			
WG542820CCV5	CCV	05/24/22 9:50	WI220517-2	24.875		24.7	mg/L	99	90	110			
WG542820CCB5	CCB	05/24/22 9:51				U	mg/L		-3	3			
WG542820CCV6	CCV	05/24/22 11:05	WI220517-2	24.875		24.8	mg/L	100	90	110			
WG542820CCB6	CCB	05/24/22 11:05				U	mg/L		-3	3			

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		2.056	mg/L	103	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.015	0.015			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.025025		.027	mg/L	108	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	.1001		.102	mg/L	102	80	120			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	.5005		.5435	mg/L	109	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.067	mg/L	107	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.03	0.03			
L73303-04AS	AS	06/03/22 22:39	II220505-2	.5005	U	.5564	mg/L	111	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	.5005	U	.576	mg/L	115	85	115	3	20	
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		1.065	mg/L	107	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.03	0.03			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.082	mg/L	108	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L73303***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG543340													
WG543340ICV	ICV	06/03/22 21:20	II220519-3	2		2.001	mg/L	100	95	105			
WG543340ICB	ICB	06/03/22 21:26				U	mg/L		-0.06	0.06			
WG543340PQV	PQV	06/03/22 21:29	II220531-4	.0501		.049	mg/L	98	70	130			
WG543340SIC	SIC	06/03/22 21:32	II220503-2	.1002		.098	mg/L	98	80	120			
WG543340LFB	LFB	06/03/22 21:38	II220505-2	.50045		.55	mg/L	110	85	115			
WG543340CCV1	CCV	06/03/22 22:08	II220520-1	1		1.039	mg/L	104	90	110			
WG543340CCB1	CCB	06/03/22 22:11				U	mg/L		-0.06	0.06			
L73303-04AS	AS	06/03/22 22:39	II220505-2	.50045	U	.555	mg/L	111	85	115			
L73303-04ASD	ASD	06/03/22 22:42	II220505-2	.50045	U	.6	mg/L	120	85	115	8	20	MA
WG543340CCV2	CCV	06/03/22 22:45	II220520-1	1		1.048	mg/L	105	90	110			
WG543340CCB2	CCB	06/03/22 22:48				U	mg/L		-0.06	0.06			
WG543340CCV3	CCV	06/03/22 23:07	II220520-1	1		1.075	mg/L	108	90	110			
WG543340CCB3	CCB	06/03/22 23:10				U	mg/L		-0.06	0.06			

GCC Rio Grande ACZ Project ID: ***L73303***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L73303-01	WG543340	Boron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG542537	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG542775	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540C	RO	The duplicate originally assigned to this sample was not used for precision assessment because residue density did not meet method limits. Another duplicate in the batch was used to assess precision. Method required duplicate frequency was not met.
	WG543340	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542820	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG543340	Zinc, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L73303-02	WG543340	Boron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG542537	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG542775	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540C	RO	The duplicate originally assigned to this sample was not used for precision assessment because residue density did not meet method limits. Another duplicate in the batch was used to assess precision. Method required duplicate frequency was not met.
	WG543340	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542820	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG543340	Zinc, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.

GCC Rio Grande ACZ Project ID: ***L73303***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L73303-03	WG543340	Boron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG543182	Residue, Filterable (TDS) @180C	SM2540C	H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
			SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG543340	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542820	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG543340	Zinc, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L73303-04	WG543340	Boron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG542775	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG543340	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542820	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG543340	Zinc, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L73303-05	WG543340	Boron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG542775	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG543092	Selenium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
	WG543340	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542820	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG543340	Zinc, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.

GCC Rio Grande ACZ Project ID: ***L73303***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L73303-06	WG543340	Boron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG542775	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG543092	Selenium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
	WG543340	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542820	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG543340	Zinc, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L73303-07	WG543340	Boron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG542775	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG543340	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG542820	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG543340	Zinc, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L73303***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L73303
Date Received: 05/18/2022 10:46
Received By:
Date Printed: 5/19/2022

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
2195	2.3	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L73303
Date Received: 05/18/2022 10:46
Received By:
Date Printed: 5/19/2022

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ LABORATORIES | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L73303

CHAIN of CUSTODY

Report to:

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

Copy of Report to:

Name: Landon Beck
Company: Resource Hydrogeologic
E-mail: lbeck@resourcehydrogeologic.com
Telephone: (970) 459-4865

Invoice to:

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

Copy of Invoice to:

Name:
Company:
E-mail:
Address:
Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ✓ NO

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes No ✓

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Amy Veek **Sampler's Site Information** **State** CO **Zip code** 81004 **Time Zone** MDT

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material?

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	GW-COmpliance							
MW-14	5/17/2022 09:32	GW	3	✓							
MW-10	5/17/2022 10:18	GW	3	✓							
MW-9	5/17/2022 10:32	GW	3	✓							
MW-12	5/17/2022 11:01	GW	3	✓							
MW-11	5/17/2022 11:12	GW	3	✓							
MW-6	5/17/2022 11:33	GW	3	✓							
MW-8	5/17/2022 11:50	GW	3	✓							

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	5/17/22 15:02	[signature]	5/18/22 10:46

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L73303 Chain of Custod

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Revised Analytical Report

September 07, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Project ID: 105495
ACZ Project ID: L75198

Amy Veek:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on August 16, 2022 and originally reported on September 06, 2022. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L75198. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L75198. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 06, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber has reviewed and approved this report.

GCC Rio Grande

September 06, 2022

Project ID: 105495
ACZ Project ID: L75198

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 10 groundwater samples from GCC Rio Grande on August 16, 2022. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L75198. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.

This project was revised on 09/06/2022 to report dissolved cobalt by ICPMS for L75198-01, -03, -05, -09, and -10 per client request. No other changes were made.

GCC Rio Grande
Project ID: 105495
Sample ID: MW-14

ACZ Sample ID: ***L75198-01***
Date Sampled: *08/15/22 10:03*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	08/31/22 10:52	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00590			mg/L	0.0002	0.001	08/18/22 16:53	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	08/31/22 10:52	wtc
Boron, dissolved	M200.7 ICP	5	1.17			mg/L	0.15	0.5	08/31/22 10:52	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	08/18/22 16:53	mfm
Calcium, dissolved	M200.7 ICP	5	17.3			mg/L	0.5	2.5	08/31/22 10:52	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 10:52	wtc
Cobalt, dissolved	M200.8 ICP-MS	1	0.000751			mg/L	0.00005	0.00025	08/18/22 16:53	mfm
Copper, dissolved	M200.7 ICP	5	<0.05	U	*	mg/L	0.05	0.25	08/31/22 10:52	wtc
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	08/31/22 10:52	wtc
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.001	08/22/22 10:43	mfm
Lithium, dissolved	M200.7 ICP	5	0.358			mg/L	0.04	0.2	08/31/22 10:52	wtc
Magnesium, dissolved	M200.7 ICP	5	4.86	B		mg/L	1	5	08/31/22 10:52	wtc
Manganese, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	08/31/22 10:52	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/18/22 14:50	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	08/31/22 10:52	wtc
Potassium, dissolved	M200.7 ICP	5	5.31			mg/L	1	5	08/31/22 10:52	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.0005	08/22/22 10:43	mfm
Sodium, dissolved	M200.7 ICP	5	1450		*	mg/L	1	5	08/31/22 10:52	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	08/31/22 10:52	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 10:52	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1300			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	1300			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	50	1480		*	mg/L	50	100	08/24/22 13:20	mjj1
Fluoride	SM4500F-C	1	3.10		*	mg/L	0.15	0.35	08/24/22 14:52	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	08/16/22 23:24	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	08/16/22 23:24	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4240			mg/L	40	80	08/22/22 16:37	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	10	321		*	mg/L	10	50	08/23/22 16:44	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-13

ACZ Sample ID: ***L75198-02***
Date Sampled: *08/15/22 10:57*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	08/31/22 10:55	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00285			mg/L	0.0002	0.001	08/18/22 16:59	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	08/31/22 10:55	wtc
Boron, dissolved	M200.7 ICP	2	0.996			mg/L	0.06	0.2	08/31/22 10:55	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	08/18/22 16:59	mfm
Calcium, dissolved	M200.7 ICP	2	7.84			mg/L	0.2	1	08/31/22 10:55	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 10:55	wtc
Cobalt, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 10:55	wtc
Copper, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.1	08/31/22 10:55	wtc
Iron, dissolved	M200.7 ICP	2	<0.12	U		mg/L	0.12	0.3	08/31/22 10:55	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	08/18/22 16:59	mfm
Lithium, dissolved	M200.7 ICP	2	0.207			mg/L	0.016	0.08	08/31/22 10:55	wtc
Magnesium, dissolved	M200.7 ICP	2	1.74	B		mg/L	0.4	2	08/31/22 10:55	wtc
Manganese, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	08/31/22 10:55	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/18/22 14:55	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	08/31/22 10:55	wtc
Potassium, dissolved	M200.7 ICP	2	3.14			mg/L	0.4	2	08/31/22 10:55	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.0005	08/22/22 10:48	mfm
Sodium, dissolved	M200.7 ICP	2	910		*	mg/L	0.4	2	08/31/22 10:55	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	08/31/22 10:55	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 10:55	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1180			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	1180			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	10	606		*	mg/L	10	20	08/24/22 12:27	mjj1
Fluoride	SM4500F-C	1	6.46		*	mg/L	0.15	0.35	08/24/22 15:00	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	08/16/22 23:25	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.029	B	*	mg/L	0.01	0.05	08/16/22 23:25	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	2610		*	mg/L	20	40	08/19/22 10:43	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	172		*	mg/L	5	25	08/23/22 16:44	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L75198-03***
Date Sampled: *08/15/22 11:51*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	08/31/22 10:58	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00040	B		mg/L	0.0002	0.001	08/18/22 17:01	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	08/31/22 10:58	wtc
Boron, dissolved	M200.7 ICP	5	0.187	B		mg/L	0.15	0.5	08/31/22 10:58	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	0.000131	B		mg/L	0.00005	0.00025	08/18/22 17:01	mfm
Calcium, dissolved	M200.7 ICP	5	421			mg/L	0.5	2.5	08/31/22 10:58	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 10:58	wtc
Cobalt, dissolved	M200.8 ICP-MS	1	0.0204			mg/L	0.00005	0.00025	08/18/22 17:01	mfm
Copper, dissolved	M200.7 ICP	5	<0.05	U	*	mg/L	0.05	0.25	08/31/22 10:58	wtc
Iron, dissolved	M200.7 ICP	5	0.696	B		mg/L	0.3	0.75	08/31/22 10:58	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	08/18/22 17:01	mfm
Lithium, dissolved	M200.7 ICP	5	0.425			mg/L	0.04	0.2	08/31/22 10:58	wtc
Magnesium, dissolved	M200.7 ICP	5	410			mg/L	1	5	08/31/22 10:58	wtc
Manganese, dissolved	M200.7 ICP	5	0.290			mg/L	0.05	0.25	08/31/22 10:58	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/18/22 14:56	mlh
Nickel, dissolved	M200.7 ICP	5	0.409			mg/L	0.04	0.2	08/31/22 10:58	wtc
Potassium, dissolved	M200.7 ICP	5	10.8			mg/L	1	5	08/31/22 10:58	wtc
Selenium, dissolved	M200.8 ICP-MS	1	0.0112			mg/L	0.0001	0.00025	08/23/22 15:06	mfm
Sodium, dissolved	M200.7 ICP	5	456		*	mg/L	1	5	08/31/22 10:58	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	08/31/22 10:58	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 10:58	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	421			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	421			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	1	68.7		*	mg/L	1	2	08/24/22 12:25	mjj1
Fluoride	SM4500F-C	1	0.50			mg/L	0.15	0.35	08/24/22 15:21	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		1.02			mg/L	0.02	0.1	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	1.09			mg/L	0.02	0.1	08/16/22 23:27	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.070		*	mg/L	0.01	0.05	08/16/22 23:27	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5410			mg/L	40	80	08/22/22 16:40	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3700		*	mg/L	120	600	08/23/22 17:16	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L75198-04***
Date Sampled: *08/15/22 12:00*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	08/31/22 11:01	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00788			mg/L	0.0002	0.001	08/18/22 17:02	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	08/31/22 11:01	wtc
Boron, dissolved	M200.7 ICP	2	0.803			mg/L	0.06	0.2	08/31/22 11:01	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	08/18/22 17:02	mfm
Calcium, dissolved	M200.7 ICP	2	68.1			mg/L	0.2	1	08/31/22 11:01	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 11:01	wtc
Cobalt, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 11:01	wtc
Copper, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.1	08/31/22 11:01	wtc
Iron, dissolved	M200.7 ICP	2	0.832			mg/L	0.12	0.3	08/31/22 11:01	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	08/18/22 17:02	mfm
Lithium, dissolved	M200.7 ICP	2	0.362			mg/L	0.016	0.08	08/31/22 11:01	wtc
Magnesium, dissolved	M200.7 ICP	2	26.5			mg/L	0.4	2	08/31/22 11:01	wtc
Manganese, dissolved	M200.7 ICP	2	0.239			mg/L	0.02	0.1	08/31/22 11:01	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/18/22 14:57	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	08/31/22 11:01	wtc
Potassium, dissolved	M200.7 ICP	2	5.40			mg/L	0.4	2	08/31/22 11:01	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.0005	08/22/22 10:52	mfm
Sodium, dissolved	M200.7 ICP	2	1100		*	mg/L	0.4	2	08/31/22 11:01	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	08/31/22 11:01	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 11:01	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1100			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	1100			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	10	290		*	mg/L	10	20	08/24/22 12:27	mjj1
Fluoride	SM4500F-C	1	1.07			mg/L	0.15	0.35	08/24/22 15:29	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	08/16/22 23:28	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	08/16/22 23:28	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	3730		*	mg/L	40	80	08/19/22 10:48	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	50	1560		*	mg/L	50	250	08/23/22 16:44	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L75198-05***
Date Sampled: *08/15/22 12:21*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	08/31/22 11:04	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00040	B		mg/L	0.0002	0.001	08/18/22 17:04	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	08/31/22 11:04	wtc
Boron, dissolved	M200.7 ICP	5	0.294	B		mg/L	0.15	0.5	08/31/22 11:04	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	0.000067	B		mg/L	0.00005	0.00025	08/18/22 17:04	mfm
Calcium, dissolved	M200.7 ICP	5	346			mg/L	0.5	2.5	08/31/22 11:04	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 11:04	wtc
Cobalt, dissolved	M200.8 ICP-MS	1	0.00277			mg/L	0.00005	0.00025	08/18/22 17:04	mfm
Copper, dissolved	M200.7 ICP	5	<0.05	U	*	mg/L	0.05	0.25	08/31/22 11:04	wtc
Iron, dissolved	M200.7 ICP	5	0.438	B		mg/L	0.3	0.75	08/31/22 11:04	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	08/18/22 17:04	mfm
Lithium, dissolved	M200.7 ICP	5	0.543			mg/L	0.04	0.2	08/31/22 11:04	wtc
Magnesium, dissolved	M200.7 ICP	5	371			mg/L	1	5	08/31/22 11:04	wtc
Manganese, dissolved	M200.7 ICP	5	0.072	B		mg/L	0.05	0.25	08/31/22 11:04	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/18/22 14:58	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	08/31/22 11:04	wtc
Potassium, dissolved	M200.7 ICP	5	10.5			mg/L	1	5	08/31/22 11:04	wtc
Selenium, dissolved	M200.8 ICP-MS	1	0.00075			mg/L	0.0001	0.00025	08/23/22 15:08	mfm
Sodium, dissolved	M200.7 ICP	5	703		*	mg/L	1	5	08/31/22 11:04	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	08/31/22 11:04	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 11:04	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	484			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	484			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	1	96.8		*	mg/L	1	2	08/24/22 12:25	mjj1
Fluoride	SM4500F-C	1	0.50			mg/L	0.15	0.35	08/24/22 15:37	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.151			mg/L	0.02	0.1	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.151			mg/L	0.02	0.1	08/16/22 23:29	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	08/16/22 23:29	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	6170			mg/L	40	80	08/22/22 16:43	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3810		*	mg/L	120	600	08/23/22 17:16	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-8

ACZ Sample ID: ***L75198-06***
Date Sampled: *08/15/22 12:41*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	08/31/22 11:07	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00767			mg/L	0.0002	0.001	08/18/22 17:06	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	08/31/22 11:07	wtc
Boron, dissolved	M200.7 ICP	2	0.811			mg/L	0.06	0.2	08/31/22 11:07	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	08/18/22 17:06	mfm
Calcium, dissolved	M200.7 ICP	2	68.1			mg/L	0.2	1	08/31/22 11:07	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 11:07	wtc
Cobalt, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 11:07	wtc
Copper, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.1	08/31/22 11:07	wtc
Iron, dissolved	M200.7 ICP	2	0.830			mg/L	0.12	0.3	08/31/22 11:07	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	08/18/22 17:06	mfm
Lithium, dissolved	M200.7 ICP	2	0.366			mg/L	0.016	0.08	08/31/22 11:07	wtc
Magnesium, dissolved	M200.7 ICP	2	26.6			mg/L	0.4	2	08/31/22 11:07	wtc
Manganese, dissolved	M200.7 ICP	2	0.236			mg/L	0.02	0.1	08/31/22 11:07	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/18/22 14:59	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	08/31/22 11:07	wtc
Potassium, dissolved	M200.7 ICP	2	5.43			mg/L	0.4	2	08/31/22 11:07	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.0005	08/22/22 10:56	mfm
Sodium, dissolved	M200.7 ICP	2	1110		*	mg/L	0.4	2	08/31/22 11:07	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	08/31/22 11:07	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 11:07	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1090			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	1090			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	10	291		*	mg/L	10	20	08/24/22 12:27	mjj1
Fluoride	SM4500F-C	1	1.09			mg/L	0.15	0.35	08/24/22 15:45	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	08/16/22 23:30	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U		mg/L	0.01	0.05	08/16/22 23:30	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	3790		*	mg/L	20	40	08/19/22 10:53	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	50	1510		*	mg/L	50	250	08/23/22 16:46	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L75198-07***
Date Sampled: *08/15/22 14:15*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	08/31/22 11:16	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00157			mg/L	0.0002	0.001	08/18/22 17:08	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	08/31/22 11:16	wtc
Boron, dissolved	M200.7 ICP	2	0.785			mg/L	0.06	0.2	08/31/22 11:16	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	08/18/22 17:08	mfm
Calcium, dissolved	M200.7 ICP	2	25.5			mg/L	0.2	1	08/31/22 11:16	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 11:16	wtc
Cobalt, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 11:16	wtc
Copper, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	08/31/22 11:16	wtc
Iron, dissolved	M200.7 ICP	2	<0.12	U		mg/L	0.12	0.3	08/31/22 11:16	wtc
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.001	08/22/22 10:58	mfm
Lithium, dissolved	M200.7 ICP	2	0.193			mg/L	0.016	0.08	08/31/22 11:16	wtc
Magnesium, dissolved	M200.7 ICP	2	6.19			mg/L	0.4	2	08/31/22 11:16	wtc
Manganese, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	08/31/22 11:16	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	08/18/22 15:00	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	08/31/22 11:16	wtc
Potassium, dissolved	M200.7 ICP	2	3.74			mg/L	0.4	2	08/31/22 11:16	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.0005	08/22/22 10:58	mfm
Sodium, dissolved	M200.7 ICP	2	805			mg/L	0.4	2	08/31/22 11:16	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	08/31/22 11:16	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/31/22 11:16	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	523			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	523			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	50	954		*	mg/L	50	100	08/24/22 13:20	mjj1
Fluoride	SM4500F-C	1	1.85			mg/L	0.15	0.35	08/24/22 15:52	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		8.89			mg/L	0.1	0.5	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	5	9.40			mg/L	0.1	0.5	08/16/22 23:48	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.511			mg/L	0.01	0.05	08/16/22 23:33	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	2370			mg/L	20	40	08/19/22 12:45	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	10	204		*	mg/L	10	50	08/23/22 16:46	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L75198-08***
Date Sampled: *08/15/22 14:33*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/31/22 11:20	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00051	B		mg/L	0.0002	0.001	08/18/22 17:14	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/31/22 11:20	wtc
Boron, dissolved	M200.7 ICP	1	0.446			mg/L	0.03	0.1	08/31/22 11:20	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	08/18/22 17:14	mfm
Calcium, dissolved	M200.7 ICP	1	47.2			mg/L	0.1	0.5	08/31/22 11:20	wtc
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/31/22 11:20	wtc
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/31/22 11:20	wtc
Copper, dissolved	M200.7 ICP	1	<0.01	U	*	mg/L	0.01	0.05	08/31/22 11:20	wtc
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/31/22 11:20	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	08/18/22 17:14	mfm
Lithium, dissolved	M200.7 ICP	1	0.163			mg/L	0.008	0.04	08/31/22 11:20	wtc
Magnesium, dissolved	M200.7 ICP	1	26.3			mg/L	0.2	1	08/31/22 11:20	wtc
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/31/22 11:20	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	08/18/22 15:01	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	08/31/22 11:20	wtc
Potassium, dissolved	M200.7 ICP	1	3.54			mg/L	0.2	1	08/31/22 11:20	wtc
Selenium, dissolved	M200.8 ICP-MS	1	0.125		*	mg/L	0.0001	0.00025	08/22/22 11:03	mfm
Sodium, dissolved	M200.7 ICP	1	477		*	mg/L	0.2	1	08/31/22 11:20	wtc
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	08/31/22 11:20	wtc
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/31/22 11:20	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	839			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	839			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	10	135		*	mg/L	10	20	08/24/22 12:27	mjj1
Fluoride	SM4500F-C	1	0.93			mg/L	0.15	0.35	08/24/22 16:08	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.2	U		mg/L	0.2	1	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	10	<0.2	U	*	mg/L	0.2	1	08/16/22 23:50	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U		mg/L	0.01	0.05	08/16/22 23:40	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	1640			mg/L	20	40	08/19/22 12:48	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	25	401		*	mg/L	25	125	08/23/22 16:46	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L75198-09***
Date Sampled: *08/15/22 15:23*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	08/31/22 11:29	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00404			mg/L	0.0002	0.001	08/18/22 17:16	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	08/31/22 11:29	wtc
Boron, dissolved	M200.7 ICP	5	1.32			mg/L	0.15	0.5	08/31/22 11:29	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	08/18/22 17:16	mfm
Calcium, dissolved	M200.7 ICP	5	53.5			mg/L	0.5	2.5	08/31/22 11:29	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 11:29	wtc
Cobalt, dissolved	M200.8 ICP-MS	1	0.000287			mg/L	0.00005	0.00025	08/18/22 17:16	mfm
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	08/31/22 11:29	wtc
Iron, dissolved	M200.7 ICP	5	0.622	B		mg/L	0.3	0.75	08/31/22 11:29	wtc
Lead, dissolved	M200.8 ICP-MS	1	0.00021	B		mg/L	0.0001	0.0005	08/22/22 11:05	mfm
Lithium, dissolved	M200.7 ICP	5	0.311			mg/L	0.04	0.2	08/31/22 11:29	wtc
Magnesium, dissolved	M200.7 ICP	5	16.2			mg/L	1	5	08/31/22 11:29	wtc
Manganese, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	08/31/22 11:29	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	08/18/22 15:02	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	08/31/22 11:29	wtc
Potassium, dissolved	M200.7 ICP	5	6.85			mg/L	1	5	08/31/22 11:29	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U	*	mg/L	0.0002	0.0005	08/24/22 16:18	mfm
Sodium, dissolved	M200.7 ICP	5	1240			mg/L	1	5	08/31/22 11:29	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	08/31/22 11:29	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 11:29	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	644			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	644			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	10	350		*	mg/L	10	20	08/24/22 12:27	mjj1
Fluoride	SM4500F-C	1	1.16			mg/L	0.15	0.35	08/24/22 16:29	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U		mg/L	0.02	0.1	08/16/22 23:41	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U		mg/L	0.01	0.05	08/16/22 23:41	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4210			mg/L	40	80	08/22/22 16:45	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	100	2240		*	mg/L	100	500	08/23/22 17:16	mjj1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L75198-10***
Date Sampled: *08/15/22 15:37*
Date Received: *08/16/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	08/31/22 11:32	wtc
Arsenic, dissolved	M200.8 ICP-MS	1	0.00058	B		mg/L	0.0002	0.001	08/18/22 17:22	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	08/31/22 11:32	wtc
Boron, dissolved	M200.7 ICP	5	1.15			mg/L	0.15	0.5	08/31/22 11:32	wtc
Cadmium, dissolved	M200.8 ICP-MS	1	0.000065	B		mg/L	0.00005	0.00025	08/22/22 11:11	mfm
Calcium, dissolved	M200.7 ICP	5	417			mg/L	0.5	2.5	08/31/22 11:32	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 11:32	wtc
Cobalt, dissolved	M200.8 ICP-MS	1	0.00399			mg/L	0.00005	0.00025	08/18/22 17:22	mfm
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	08/31/22 11:32	wtc
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	08/31/22 11:32	wtc
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/18/22 17:22	mfm
Lithium, dissolved	M200.7 ICP	5	0.358			mg/L	0.04	0.2	08/31/22 11:32	wtc
Magnesium, dissolved	M200.7 ICP	5	156			mg/L	1	5	08/31/22 11:32	wtc
Manganese, dissolved	M200.7 ICP	5	0.547			mg/L	0.05	0.25	08/31/22 11:32	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	08/18/22 15:03	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	08/31/22 11:32	wtc
Potassium, dissolved	M200.7 ICP	5	9.51			mg/L	1	5	08/31/22 11:32	wtc
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/23/22 15:15	mfm
Sodium, dissolved	M200.7 ICP	5	716			mg/L	1	5	08/31/22 11:32	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	08/31/22 11:32	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	08/31/22 11:32	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	323			mg/L	2	20	08/19/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	08/19/22 0:00	jck
Total Alkalinity		1	323			mg/L	2	20	08/19/22 0:00	jck
Chloride	SM4500Cl-E	1	44.5		*	mg/L	1	2	08/24/22 12:25	mjj1
Fluoride	SM4500F-C	1	0.43			mg/L	0.15	0.35	08/24/22 16:50	emk
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.038	B		mg/L	0.02	0.1	09/07/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.038	B		mg/L	0.02	0.1	08/16/22 23:42	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U		mg/L	0.01	0.05	08/16/22 23:42	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4640			mg/L	40	80	08/22/22 16:48	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3160		*	mg/L	120	600	08/23/22 17:16	mjj1

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548872													
WG548872PBW1	PBW	08/19/22 16:58				7.7	mg/L		-20	20			
WG548872LCSW3	LCSW	08/19/22 17:17	WC220816-1	820.0001		758.3	mg/L	92	90	110			
L75198-06DUP	DUP	08/19/22 19:37			1090	1107.8	mg/L				2	20	
L75218-03DUP	DUP	08/19/22 22:14			418	400.4	mg/L				4	20	
WG548872LCSW6	LCSW	08/19/22 22:33	WC220816-1	820.0001		783.3	mg/L	96	90	110			
WG548872PBW2	PBW	08/19/22 22:42				7.7	mg/L		-20	20			
WG548872LCSW9	LCSW	08/20/22 3:14	WC220816-1	820.0001		784.6	mg/L	96	90	110			
WG548872PBW3	PBW	08/20/22 3:22				7.2	mg/L		-20	20			
WG548872LCSW12	LCSW	08/20/22 6:30	WC220816-1	820.0001		787.7	mg/L	96	90	110			
WG548872PBW4	PBW	08/20/22 6:38				6.5	mg/L		-20	20			
WG548872LCSW15	LCSW	08/20/22 10:27	WC220816-1	820.0001		774.7	mg/L	94	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		2.024	mg/L	101	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.15	0.15			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.2502		.234	mg/L	94	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	200.4102		199.5	mg/L	100	1	200			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	1.0008		.996	mg/L	100	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		.996	mg/L	100	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.15	0.15			
L75198-08AS	AS	08/31/22 11:23	II220827-3	1.0008	U	1.03	mg/L	103	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	1.0008	U	1.035	mg/L	103	85	115	0	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.971	mg/L	97	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.15	0.15			
L75213-01AS	AS	08/31/22 11:57	II220827-3	1.0008	U	1.024	mg/L	102	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	1.0008	U	1.099	mg/L	110	85	115	7	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		.984	mg/L	98	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.15	0.15			

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548812													
WG548812ICV	ICV	08/18/22 16:32	MS220701-3	.05		.05292	mg/L	106	90	110			
WG548812ICB	ICB	08/18/22 16:34				.00038	mg/L		-0.00044	0.00044			
WG548812LFB	LFB	08/18/22 16:36	MS220722-2	.05005		.04939	mg/L	99	85	115			
L75196-04AS	AS	08/18/22 16:47	MS220722-2	.05005	.00177	.06132	mg/L	119	70	130			
L75196-04ASD	ASD	08/18/22 16:49	MS220722-2	.05005	.00177	.06126	mg/L	119	70	130	0	20	
WG548812CCV1	CCV	08/18/22 16:55	MS220721-6	.1001		.10887	mg/L	109	90	110			
WG548812CCB1	CCB	08/18/22 16:57				U	mg/L		-0.0006	0.0006			
L75198-07AS	AS	08/18/22 17:10	MS220722-2	.05005	.00157	.05964	mg/L	116	70	130			
L75198-07ASD	ASD	08/18/22 17:12	MS220722-2	.05005	.00157	.06055	mg/L	118	70	130	2	20	
WG548812CCV2	CCV	08/18/22 17:18	MS220721-6	.1001		.10335	mg/L	103	90	110			
WG548812CCB2	CCB	08/18/22 17:20				U	mg/L		-0.0006	0.0006			
WG548812CCV3	CCV	08/18/22 17:31	MS220721-6	.1001		.1062	mg/L	106	90	110			
WG548812CCB3	CCB	08/18/22 17:33				U	mg/L		-0.0006	0.0006			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		2.005	mg/L	100	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.03	0.03			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.05005		.057	mg/L	114	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	.1001		.107	mg/L	107	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.501		.471	mg/L	94	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		1.008	mg/L	101	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.03	0.03			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.501	U	.474	mg/L	95	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.501	U	.481	mg/L	96	85	115	1	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.982	mg/L	98	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.03	0.03			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.501	U	.482	mg/L	96	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.501	U	.487	mg/L	97	85	115	1	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		.988	mg/L	99	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.03	0.03			

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2.17		2.219	mg/L	102	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.09	0.09			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.1001		.097	mg/L	97	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	.1001		.096	mg/L	96	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.5005		.484	mg/L	97	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		.986	mg/L	99	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.09	0.09			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.5005	.446	.954	mg/L	101	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.5005	.446	.957	mg/L	102	85	115	0	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.963	mg/L	96	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.09	0.09			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.5005	U	.529	mg/L	106	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.5005	U	.533	mg/L	106	85	115	1	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		.976	mg/L	98	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.09	0.09			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548812													
WG548812ICV	ICV	08/18/22 16:32	MS220701-3	.05		.052788	mg/L	106	90	110			
WG548812ICB	ICB	08/18/22 16:34				U	mg/L		-0.00011	0.00011			
WG548812LFB	LFB	08/18/22 16:36	MS220722-2	.05005		.049528	mg/L	99	85	115			
L75196-04AS	AS	08/18/22 16:47	MS220722-2	.05005	.000081	.057979	mg/L	116	70	130			
L75196-04ASD	ASD	08/18/22 16:49	MS220722-2	.05005	.000081	.057205	mg/L	114	70	130	1	20	
WG548812CCV1	CCV	08/18/22 16:55	MS220721-6	.1001		.108332	mg/L	108	90	110			
WG548812CCB1	CCB	08/18/22 16:57				U	mg/L		-0.00015	0.00015			
L75198-07AS	AS	08/18/22 17:10	MS220722-2	.05005	U	.045607	mg/L	91	70	130			
L75198-07ASD	ASD	08/18/22 17:12	MS220722-2	.05005	U	.046475	mg/L	93	70	130	2	20	
WG548812CCV2	CCV	08/18/22 17:18	MS220721-6	.1001		.100034	mg/L	100	90	110			
WG548812CCB2	CCB	08/18/22 17:20				U	mg/L		-0.00015	0.00015			
WG548812CCV3	CCV	08/18/22 17:31	MS220721-6	.1001		.103177	mg/L	103	90	110			
WG548812CCB3	CCB	08/18/22 17:33				.000236	mg/L		-0.00015	0.00015			BB
WG548913													
WG548913ICV	ICV	08/22/22 10:20	MS220701-3	.05		.050978	mg/L	102	90	110			
WG548913ICB	ICB	08/22/22 10:22				U	mg/L		-0.00011	0.00011			
WG548913LFB	LFB	08/22/22 10:26	MS220722-2	.05005		.047207	mg/L	94	85	115			
L75142-01AS	AS	08/22/22 10:30	MS220722-2	.05005	.000123	.051041	mg/L	102	70	130			
L75142-01ASD	ASD	08/22/22 10:31	MS220722-2	.05005	.000123	.050051	mg/L	100	70	130	2	20	
WG548913CCV1	CCV	08/22/22 10:45	MS220721-6	.1001		.100405	mg/L	100	90	110			
WG548913CCB1	CCB	08/22/22 10:47				U	mg/L		-0.00015	0.00015			
L75198-07AS	AS	08/22/22 11:00	MS220722-2	.1001	U	.09007	mg/L	90	70	130			
L75198-07ASD	ASD	08/22/22 11:02	MS220722-2	.1001	U	.094488	mg/L	94	70	130	5	20	
WG548913CCV2	CCV	08/22/22 11:07	MS220721-6	.1001		.097421	mg/L	97	90	110			
WG548913CCB2	CCB	08/22/22 11:09				U	mg/L		-0.00015	0.00015			
WG548913CCV3	CCV	08/22/22 11:20	MS220721-6	.1001		.094309	mg/L	94	90	110			
WG548913CCB3	CCB	08/22/22 11:22				U	mg/L		-0.00015	0.00015			

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	100		99.61	mg/L	100	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.3	0.3			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.5003		.53	mg/L	106	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	200.7203		202.3	mg/L	101	1	200			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	67.98862		67.48	mg/L	99	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	50		49.41	mg/L	99	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.3	0.3			
L75198-08AS	AS	08/31/22 11:23	II220827-3	67.98862	47.2	110.8	mg/L	94	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	67.98862	47.2	111.6	mg/L	95	85	115	1	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	50		47.76	mg/L	96	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.3	0.3			
L75213-01AS	AS	08/31/22 11:57	II220827-3	67.98862	47	111.9	mg/L	95	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	67.98862	47	116.9	mg/L	103	85	115	4	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	50		48.49	mg/L	97	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549099													
WG549099ICB	ICB	08/24/22 10:34				U	mg/L		-3	3			
WG549099ICV	ICV	08/24/22 10:35	WI220502-12	54.945		56.1	mg/L	102	90	110			
WG549099CCV1	CCV	08/24/22 11:55	WI220323-1	49.95		50.68	mg/L	101	90	110			
WG549099CCB1	CCB	08/24/22 11:55				U	mg/L		-3	3			
WG549099LFB1	LFB	08/24/22 11:55	WI220328-1	29.97		30.5	mg/L	102	90	110			
WG549099CCV2	CCV	08/24/22 11:56	WI220323-1	49.95		49.93	mg/L	100	90	110			
WG549099CCB2	CCB	08/24/22 11:57				U	mg/L		-3	3			
WG549099CCV3	CCV	08/24/22 11:58	WI220323-1	49.95		50.52	mg/L	101	90	110			
WG549099CCB3	CCB	08/24/22 11:58				U	mg/L		-3	3			
WG549099LFB2	LFB	08/24/22 11:59	WI220328-1	29.97		30.6	mg/L	102	90	110			
WG549099CCV4	CCV	08/24/22 12:04	WI220323-1	49.95		49.85	mg/L	100	90	110			
WG549099CCB4	CCB	08/24/22 12:04				U	mg/L		-3	3			
WG549099CCV5	CCV	08/24/22 12:06	WI220323-1	49.95		50.66	mg/L	101	90	110			
WG549099CCB5	CCB	08/24/22 12:06				U	mg/L		-3	3			
WG549099CCV6	CCV	08/24/22 12:20	WI220323-1	49.95		50.54	mg/L	101	90	110			
WG549099CCB6	CCB	08/24/22 12:20				U	mg/L		-3	3			
L75198-02DUP	DUP	08/24/22 12:27			606	607.48	mg/L				0	20	
WG549099CCV7	CCV	08/24/22 12:27	WI220323-1	49.95		49.91	mg/L	100	90	110			
WG549099CCB7	CCB	08/24/22 12:27				U	mg/L		-3	3			
WG549099CCV8	CCV	08/24/22 13:20	WI220323-1	49.95		50.16	mg/L	100	90	110			
WG549099CCB8	CCB	08/24/22 13:20				U	mg/L		-3	3			
L75198-01AS	AS	08/24/22 13:20	50XCL	30	1480	1441.24	mg/L	-129	90	110			M3
WG549099CCV9	CCV	08/24/22 13:22	WI220323-1	49.95		50.19	mg/L	100	90	110			
WG549099CCB9	CCB	08/24/22 13:22				U	mg/L		-3	3			

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		1.998	mg/L	100	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.06	0.06			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.0501		.044	mg/L	88	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	.1002		.092	mg/L	92	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.501		.461	mg/L	92	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		.98	mg/L	98	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.06	0.06			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.501	U	.457	mg/L	91	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.501	U	.471	mg/L	94	85	115	3	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.967	mg/L	97	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.06	0.06			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.501	U	.476	mg/L	95	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.501	U	.485	mg/L	97	85	115	2	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		.993	mg/L	99	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.06	0.06			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cobalt, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2.01		2.023	mg/L	101	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.06	0.06			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.05005		.051	mg/L	102	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	.1001		.094	mg/L	94	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.5005		.462	mg/L	92	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1.005		1.005	mg/L	100	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.06	0.06			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.5005	U	.458	mg/L	92	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.5005	U	.468	mg/L	94	85	115	2	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1.005		.975	mg/L	97	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.06	0.06			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.5005	U	.473	mg/L	95	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.5005	U	.477	mg/L	95	85	115	1	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1.005		.996	mg/L	99	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548812													
WG548812ICV	ICV	08/18/22 16:32	MS220701-3	.05		.054238	mg/L	108	90	110			
WG548812ICB	ICB	08/18/22 16:34				U	mg/L		-0.00011	0.00011			
WG548812LFB	LFB	08/18/22 16:36	MS220722-2	.05005		.050282	mg/L	100	85	115			
L75196-04AS	AS	08/18/22 16:47	MS220722-2	.05005	.000895	.055014	mg/L	108	70	130			
L75196-04ASD	ASD	08/18/22 16:49	MS220722-2	.05005	.000895	.054226	mg/L	107	70	130	1	20	
WG548812CCV1	CCV	08/18/22 16:55	MS220721-6	.1001		.108052	mg/L	108	90	110			
WG548812CCB1	CCB	08/18/22 16:57				U	mg/L		-0.00015	0.00015			
L75198-07AS	AS	08/18/22 17:10	MS220722-2	.05005	.00024	.051195	mg/L	102	70	130			
L75198-07ASD	ASD	08/18/22 17:12	MS220722-2	.05005	.00024	.051214	mg/L	102	70	130	0	20	
WG548812CCV2	CCV	08/18/22 17:18	MS220721-6	.1001		.100851	mg/L	101	90	110			
WG548812CCB2	CCB	08/18/22 17:20				U	mg/L		-0.00015	0.00015			
WG548812CCV3	CCV	08/18/22 17:31	MS220721-6	.1001		.097241	mg/L	97	90	110			
WG548812CCB3	CCB	08/18/22 17:33				.000069	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		1.992	mg/L	100	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.03	0.03			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.05005		.048	mg/L	96	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	.1001		.086	mg/L	86	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.5005		.463	mg/L	93	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		1.001	mg/L	100	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.03	0.03			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.5005	U	.074	mg/L	15	85	115			M2
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.5005	U	.082	mg/L	16	85	115	10	20	M2
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.982	mg/L	98	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.03	0.03			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.5005	U	.485	mg/L	97	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.5005	U	.491	mg/L	98	85	115	1	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		.982	mg/L	98	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.03	0.03			

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549132													
WG549132ICV	ICV	08/24/22 12:30	WC220823-7	2.008		2.07	mg/L	103	90	110			
WG549132ICB	ICB	08/24/22 12:34				U	mg/L		-0.3	0.3			
WG549132PQV	PQV	08/24/22 12:39	WC220810-2	.3514		.35	mg/L	100	70	130			
WG549132LFB1	LFB	08/24/22 12:49	WC220606-1	5.02		5.26	mg/L	105	90	110			
L74959-01AS	AS	08/24/22 13:52	WC220606-1	5.02	U	5.6	mg/L	112	90	110			MA
L74959-01ASD	ASD	08/24/22 14:00	WC220606-1	5.02	U	5.53	mg/L	110	90	110	1	20	
WG549132CCV1	CCV	08/24/22 14:05	WC220823-7	2.008		2.142	mg/L	107	90	110			
WG549132CCB1	CCB	08/24/22 14:13				U	mg/L		-0.3	0.3			
L75141-01AS	AS	08/24/22 14:28	WC220606-1	5.02	1.06	6.28	mg/L	104	90	110			
L75141-01ASD	ASD	08/24/22 14:36	WC220606-1	5.02	1.06	6.22	mg/L	103	90	110	1	20	
WG549132CCV2	CCV	08/24/22 15:05	WC220823-7	2.008		2.215	mg/L	110	90	110			
WG549132CCB2	CCB	08/24/22 15:13				U	mg/L		-0.3	0.3			
WG549132LFB2	LFB	08/24/22 16:00	WC220606-1	5.02		5.48	mg/L	109	90	110			
L75198-08AS	AS	08/24/22 16:13	WC220606-1	5.02	.93	6.17	mg/L	104	90	110			
L75198-08ASD	ASD	08/24/22 16:21	WC220606-1	5.02	.93	6.37	mg/L	108	90	110	3	20	
WG549132CCV3	CCV	08/24/22 16:34	WC220823-7	2.008		2.194	mg/L	109	90	110			
WG549132CCB3	CCB	08/24/22 16:42				U	mg/L		-0.3	0.3			
WG549132CCV4	CCV	08/24/22 18:06	WC220823-7	2.008		2.194	mg/L	109	90	110			
WG549132CCB4	CCB	08/24/22 18:14				U	mg/L		-0.3	0.3			
WG549132CCV5	CCV	08/24/22 19:34	WC220823-7	2.008		1.955	mg/L	97	90	110			
WG549132CCB5	CCB	08/24/22 19:39				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		1.984	mg/L	99	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.18	0.18			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.150195		.153	mg/L	102	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	200.410195		196	mg/L	98	1	200			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	1.0013		.918	mg/L	92	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		.972	mg/L	97	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.18	0.18			
L75198-08AS	AS	08/31/22 11:23	II220827-3	1.0013	U	.918	mg/L	92	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	1.0013	U	.934	mg/L	93	85	115	2	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.968	mg/L	97	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.18	0.18			
L75213-01AS	AS	08/31/22 11:57	II220827-3	1.0013	U	.954	mg/L	95	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	1.0013	U	.975	mg/L	97	85	115	2	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		1.03	mg/L	103	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.18	0.18			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548812													
WG548812ICV	ICV	08/18/22 16:32	MS220701-3	.05		.05323	mg/L	106	90	110			
WG548812ICB	ICB	08/18/22 16:34				U	mg/L		-0.00022	0.00022			
WG548812LFB	LFB	08/18/22 16:36	MS220722-2	.0501		.04933	mg/L	98	85	115			
L75196-04AS	AS	08/18/22 16:47	MS220722-2	.0501	U	.05452	mg/L	109	70	130			
L75196-04ASD	ASD	08/18/22 16:49	MS220722-2	.0501	U	.05385	mg/L	107	70	130	1	20	
WG548812CCV1	CCV	08/18/22 16:55	MS220721-6	.2505		.27953	mg/L	112	90	110			VC
WG548812CCB1	CCB	08/18/22 16:57				U	mg/L		-0.0003	0.0003			
L75198-07AS	AS	08/18/22 17:10	MS220722-2	.0501	.00014	.04498	mg/L	90	70	130			
L75198-07ASD	ASD	08/18/22 17:12	MS220722-2	.0501	.00014	.04655	mg/L	93	70	130	3	20	
WG548812CCV2	CCV	08/18/22 17:18	MS220721-6	.2505		.26725	mg/L	107	90	110			
WG548812CCB2	CCB	08/18/22 17:20				U	mg/L		-0.0003	0.0003			
WG548812CCV3	CCV	08/18/22 17:31	MS220721-6	.2505		.24388	mg/L	97	90	110			
WG548812CCB3	CCB	08/18/22 17:33				U	mg/L		-0.0003	0.0003			
WG548913													
WG548913ICV	ICV	08/22/22 10:20	MS220701-3	.05		.05155	mg/L	103	90	110			
WG548913ICB	ICB	08/22/22 10:22				U	mg/L		-0.00022	0.00022			
WG548913LFB	LFB	08/22/22 10:26	MS220722-2	.0501		.04737	mg/L	95	85	115			
L75142-01AS	AS	08/22/22 10:30	MS220722-2	.0501	.00437	.05386	mg/L	99	70	130			
L75142-01ASD	ASD	08/22/22 10:31	MS220722-2	.0501	.00437	.05326	mg/L	98	70	130	1	20	
WG548913CCV1	CCV	08/22/22 10:45	MS220721-6	.2505		.25214	mg/L	101	90	110			
WG548913CCB1	CCB	08/22/22 10:47				U	mg/L		-0.0003	0.0003			
L75198-07AS	AS	08/22/22 11:00	MS220722-2	.1002	U	.08434	mg/L	84	70	130			
L75198-07ASD	ASD	08/22/22 11:02	MS220722-2	.1002	U	.08782	mg/L	88	70	130	4	20	
WG548913CCV2	CCV	08/22/22 11:07	MS220721-6	.2505		.25238	mg/L	101	90	110			
WG548913CCB2	CCB	08/22/22 11:09				U	mg/L		-0.0003	0.0003			
WG548913CCV3	CCV	08/22/22 11:20	MS220721-6	.2505		.2286	mg/L	91	90	110			
WG548913CCB3	CCB	08/22/22 11:22				U	mg/L		-0.0003	0.0003			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		1.989	mg/L	99	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.024	0.024			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.03992		.0399	mg/L	100	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	.0998		.1054	mg/L	106	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.998		.9967	mg/L	100	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		1.009	mg/L	101	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.024	0.024			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.998	.163	1.155	mg/L	99	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.998	.163	1.147	mg/L	99	85	115	1	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.9885	mg/L	99	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.024	0.024			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.998	.008	.99	mg/L	98	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.998	.008	1	mg/L	99	85	115	1	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		.9852	mg/L	99	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.024	0.024			

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	100		96.84	mg/L	97	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.6	0.6			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	1.0001		1.1	mg/L	110	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	201.0201		209.8	mg/L	104	1	200			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	49.99809		47.01	mg/L	94	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	50		47.04	mg/L	94	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.6	0.6			
L75198-08AS	AS	08/31/22 11:23	II220827-3	49.99809	26.3	70.4	mg/L	88	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	49.99809	26.3	71.28	mg/L	90	85	115	1	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	50		45.39	mg/L	91	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.6	0.6			
L75213-01AS	AS	08/31/22 11:57	II220827-3	49.99809	2.78	48.98	mg/L	92	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	49.99809	2.78	52.11	mg/L	99	85	115	6	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	50		46.53	mg/L	93	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		1.951	mg/L	98	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.03	0.03			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.0498		.049	mg/L	98	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	49.9498		48.47	mg/L	97	1	200			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.499		.47	mg/L	94	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		.982	mg/L	98	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.03	0.03			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.499	U	.479	mg/L	96	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.499	U	.485	mg/L	97	85	115	1	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.954	mg/L	95	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.03	0.03			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.499	.024	.508	mg/L	97	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.499	.024	.513	mg/L	98	85	115	1	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		.966	mg/L	97	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.03	0.03			

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548734													
WG548734ICV	ICV	08/18/22 14:42	HG220815-3	.005005		.00499	mg/L	100	95	105			
WG548734ICB	ICB	08/18/22 14:43				U	mg/L		-0.0002	0.0002			
WG548734PQV	PQV	08/18/22 14:44	HG220815-5	.001001		.00101	mg/L	101	70	130			
WG548734LRB	LRB	08/18/22 14:45				U	mg/L		-0.00044	0.00044			
WG548734LFB	LFB	08/18/22 14:46	HG220815-6	.002002		.00207	mg/L	103	85	115			
L75198-01LFM	LFM	08/18/22 14:51	HG220815-6	.002002	U	.00082	mg/L	41	85	115			M2
L75198-01LFMD	LFMD	08/18/22 14:52	HG220815-6	.002002	U	.00081	mg/L	40	85	115	1	20	M2
WG548734CCV1	CCV	08/18/22 14:53	HG220815-3	.005005		.00493	mg/L	99	90	110			
WG548734CCB1	CCB	08/18/22 14:54				U	mg/L		-0.0002	0.0002			
WG548734CCV2	CCV	08/18/22 15:04	HG220815-3	.005005		.00509	mg/L	102	90	110			
WG548734CCB2	CCB	08/18/22 15:05				U	mg/L		-0.0002	0.0002			
L75200-01LFM	LFM	08/18/22 15:06	HG220815-6	.002002	U	.00208	mg/L	104	85	115			
L75200-01LFMD	LFMD	08/18/22 15:07	HG220815-6	.002002	U	.00209	mg/L	104	85	115	0	20	
WG548734CCV3	CCV	08/18/22 15:12	HG220815-3	.005005		.00501	mg/L	100	90	110			
WG548734CCB3	CCB	08/18/22 15:13				U	mg/L		-0.0002	0.0002			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		1.975	mg/L	99	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.024	0.024			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.04004		.0401	mg/L	100	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	.1001		.1026	mg/L	102	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.502		.4701	mg/L	94	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		.9844	mg/L	98	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.024	0.024			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.502	U	.4621	mg/L	92	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.502	U	.472	mg/L	94	85	115	2	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.9582	mg/L	96	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.024	0.024			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.502	U	.4746	mg/L	95	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.502	U	.4778	mg/L	95	85	115	1	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		.9708	mg/L	97	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548633													
WG548633ICV	ICV	08/16/22 23:03	WI220602-3	2.4161		2.397	mg/L	99	90	110			
WG548633ICB	ICB	08/16/22 23:05				U	mg/L		-0.02	0.02			
WG548633PQV	PQV	08/16/22 23:08	WI220630-8	.1		.083	mg/L	83	70	130			
WG548633LFB	LFB	08/16/22 23:10	WI220630-7	2		2.032	mg/L	102	90	110			
L75175-02DUP	DUP	08/16/22 23:15			2.54	2.529	mg/L				0	20	
WG548633CCV1	CCV	08/16/22 23:18	WI220810-20	2		2.025	mg/L	101	90	110			
WG548633CCB1	CCB	08/16/22 23:22				U	mg/L		-0.02	0.02			
L75198-06AS	AS	08/16/22 23:32	WI220630-7	2	U	2.062	mg/L	103	90	110			
WG548633CCV2	CCV	08/16/22 23:35	WI220810-20	2		2.003	mg/L	100	90	110			
WG548633CCB2	CCB	08/16/22 23:39				U	mg/L		-0.02	0.02			
L75198-07DUP	DUP	08/16/22 23:49			9.4	9.403	mg/L				0	20	
WG548633CCV3	CCV	08/16/22 23:55	WI220810-20	2		1.994	mg/L	100	90	110			
WG548633CCB3	CCB	08/16/22 23:58				U	mg/L		-0.02	0.02			
L75175-01AS	AS	08/16/22 23:59	WI220630-7	6	4.22	10.13	mg/L	99	90	110			
WG548633CCV4	CCV	08/17/22 0:02	WI220810-20	2		1.979	mg/L	99	90	110			
WG548633CCB4	CCB	08/17/22 0:06				U	mg/L		-0.02	0.02			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548633													
WG548633ICV	ICV	08/16/22 23:03	WI220602-3	.6089		.61	mg/L	100	90	110			
WG548633ICB	ICB	08/16/22 23:05				U	mg/L		-0.01	0.01			
WG548633PQV	PQV	08/16/22 23:08	WI220630-8	.05		.051	mg/L	102	70	130			
WG548633LFB	LFB	08/16/22 23:10	WI220630-7	1		.966	mg/L	97	90	110			
L75175-01AS	AS	08/16/22 23:12	WI220630-7	1	U	.972	mg/L	97	90	110			
L75175-02DUP	DUP	08/16/22 23:15			U	U	mg/L				0	20	RA
WG548633CCV1	CCV	08/16/22 23:18	WI220810-20	1		.984	mg/L	98	90	110			
WG548633CCB1	CCB	08/16/22 23:22				U	mg/L		-0.01	0.01			
L75198-06AS	AS	08/16/22 23:32	WI220630-7	1	U	.997	mg/L	100	90	110			
L75198-07DUP	DUP	08/16/22 23:34			.511	.512	mg/L				0	20	
WG548633CCV2	CCV	08/16/22 23:35	WI220810-20	1		.985	mg/L	99	90	110			
WG548633CCB2	CCB	08/16/22 23:39				U	mg/L		-0.01	0.01			
WG548633CCV3	CCV	08/16/22 23:55	WI220810-20	1		.979	mg/L	98	90	110			
WG548633CCB3	CCB	08/16/22 23:58				U	mg/L		-0.01	0.01			
WG548633CCV4	CCV	08/17/22 0:02	WI220810-20	1		.975	mg/L	98	90	110			
WG548633CCB4	CCB	08/17/22 0:06				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	20		19.56	mg/L	98	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.6	0.6			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	1.005		1.14	mg/L	113	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	1.005		1.05	mg/L	104	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	99.95798		95.41	mg/L	95	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	10		9.82	mg/L	98	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.6	0.6			
L75198-08AS	AS	08/31/22 11:23	II220827-3	99.95798	3.54	100.4	mg/L	97	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	99.95798	3.54	100.8	mg/L	97	85	115	0	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	10		9.57	mg/L	96	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.6	0.6			
L75213-01AS	AS	08/31/22 11:57	II220827-3	99.95798	.68	96.87	mg/L	96	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	99.95798	.68	102.9	mg/L	102	85	115	6	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	10		9.56	mg/L	96	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548850													
WG548850PBW	PBW	08/19/22 10:30				24	mg/L		-20	20			B7
WG548850LCSW	LCSW	08/19/22 10:32	PCN66040	1000		982	mg/L	98	80	120			
L75263-02DUP	DUP	08/19/22 11:01			2760	2754	mg/L				0	10	B7
WG548858													
WG548858PBW	PBW	08/19/22 12:30				U	mg/L		-20	20			
WG548858LCSW	LCSW	08/19/22 12:32	PCN66040	1000		984	mg/L	98	80	120			
L75189-01DUP2	DUP	08/19/22 12:43			356	342	mg/L				4	10	
WG548962													
WG548962PBW	PBW	08/22/22 16:30				U	mg/L		-20	20			
WG548962LCSW	LCSW	08/22/22 16:32	PCN66040	1000		964	mg/L	96	80	120			
L75207-02DUP	DUP	08/22/22 17:01			11000	11090	mg/L				1	10	

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG548913													
WG548913ICV	ICV	08/22/22 10:20	MS220701-3	.05		.05164	mg/L	103	90	110			
WG548913ICB	ICB	08/22/22 10:22				U	mg/L		-0.00022	0.00022			
WG548913LFB	LFB	08/22/22 10:26	MS220722-2	.05		.0476	mg/L	95	85	115			
L75142-01AS	AS	08/22/22 10:30	MS220722-2	.05	.00049	.05328	mg/L	106	70	130			
L75142-01ASD	ASD	08/22/22 10:31	MS220722-2	.05	.00049	.05372	mg/L	106	70	130	1	20	
WG548913CCV1	CCV	08/22/22 10:45	MS220721-6	.25		.25849	mg/L	103	90	110			
WG548913CCB1	CCB	08/22/22 10:47				.00015	mg/L		-0.0003	0.0003			
L75198-07AS	AS	08/22/22 11:00	MS220722-2	.1		.0932	mg/L	93	70	130			
L75198-07ASD	ASD	08/22/22 11:02	MS220722-2	.1		.09801	mg/L	98	70	130	5	20	
WG548913CCV2	CCV	08/22/22 11:07	MS220721-6	.25		.25861	mg/L	103	90	110			
WG548913CCB2	CCB	08/22/22 11:09				.0083	mg/L		-0.0003	0.0003			BB BE
WG549040													
WG549040ICV	ICV	08/23/22 15:00	MS220701-3	.05		.0497	mg/L	99	90	110			
WG549040ICB	ICB	08/23/22 15:02				U	mg/L		-0.00022	0.00022			
WG549040LFB	LFB	08/23/22 15:04	MS220822-2	.05		.04984	mg/L	100	85	115			
L75198-05AS	AS	08/23/22 15:10	MS220822-2	.05	.00075	.05518	mg/L	109	70	130			
L75198-05ASD	ASD	08/23/22 15:11	MS220822-2	.05	.00075	.05401	mg/L	107	70	130	2	20	
WG549040CCV1	CCV	08/23/22 15:17	MS220721-6	.25		.25234	mg/L	101	90	110			
WG549040CCB1	CCB	08/23/22 15:19				.00015	mg/L		-0.0003	0.0003			
WG549040CCV2	CCV	08/23/22 15:28	MS220721-6	.25		.24059	mg/L	96	90	110			
WG549040CCB2	CCB	08/23/22 15:30				.00015	mg/L		-0.0003	0.0003			
WG549040CCV3	CCV	08/23/22 15:49	MS220721-6	.25		.25061	mg/L	100	90	110			
WG549040CCB3	CCB	08/23/22 15:51				.00017	mg/L		-0.0003	0.0003			
WG549040CCV4	CCV	08/23/22 16:02	MS220721-6	.25		.24738	mg/L	99	90	110			
WG549040CCB4	CCB	08/23/22 16:04				.00019	mg/L		-0.0003	0.0003			
WG549182													
WG549182ICV	ICV	08/24/22 15:57	MS220701-3	.05		.05181	mg/L	104	90	110			
WG549182ICB	ICB	08/24/22 15:59				U	mg/L		-0.00022	0.00022			
WG549182LFB	LFB	08/24/22 16:01	MS220822-2	.05		.04728	mg/L	95	85	115			
L75115-01AS	AS	08/24/22 16:05	MS220822-2	.05	.00069	.051	mg/L	101	70	130			
L75115-01ASD	ASD	08/24/22 16:07	MS220822-2	.05	.00069	.05205	mg/L	103	70	130	2	20	
WG549182CCV1	CCV	08/24/22 16:20	MS220721-6	.25		.27308	mg/L	109	90	110			
WG549182CCB1	CCB	08/24/22 16:22				U	mg/L		-0.0003	0.0003			
WG549182CCV2	CCV	08/24/22 16:43	MS220721-6	.25		.24747	mg/L	99	90	110			
WG549182CCB2	CCB	08/24/22 16:45				.00015	mg/L		-0.0003	0.0003			
WG549182CCV3	CCV	08/24/22 16:56	MS220721-6	.25		.25278	mg/L	101	90	110			
WG549182CCB3	CCB	08/24/22 16:58				.00011	mg/L		-0.0003	0.0003			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	100		98.66	mg/L	99	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.6	0.6			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	1.002		1.06	mg/L	106	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	1.002		1.11	mg/L	111	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	100.0023		95.11	mg/L	95	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	50		49.6	mg/L	99	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.6	0.6			
L75198-08AS	AS	08/31/22 11:23	II220827-3	100.0023	477	542.7	mg/L	66	85	115			M3
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	100.0023	477	547.2	mg/L	70	85	115	1	20	M3
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	50		48.49	mg/L	97	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.6	0.6			
L75213-01AS	AS	08/31/22 11:57	II220827-3	100.0023	2.82	99.3	mg/L	96	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	100.0023	2.82	106	mg/L	103	85	115	7	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	50		48.71	mg/L	97	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.6	0.6			

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549045													
WG549045ICV	ICV	08/23/22 9:16	WI220815-2	19.54		20.5	mg/L	105	90	110			
WG549045CCV1	CCV	08/23/22 14:45	WI220815-3	25		25.8	mg/L	103	90	110			
WG549045CCB1	CCB	08/23/22 14:45				U	mg/L		-3	3			
WG549045LFB1	LFB	08/23/22 14:45	WI220415-3	9.95		9.9	mg/L	99	90	110			
L75175-01DUP	DUP	08/23/22 14:45			13.4	13.3	mg/L				1	20	
L75175-02AS	AS	08/23/22 14:45	WI220415-3	9.95	16.8	27.8	mg/L	111	90	110			M1
WG549045CCV2	CCV	08/23/22 14:47	WI220815-3	25		25.7	mg/L	103	90	110			
WG549045CCB2	CCB	08/23/22 14:47				U	mg/L		-3	3			
WG549045CCV3	CCV	08/23/22 14:49	WI220815-3	25		25.7	mg/L	103	90	110			
WG549045CCB3	CCB	08/23/22 14:49				U	mg/L		-3	3			
WG549045CCV4	CCV	08/23/22 14:51	WI220815-3	25		26.3	mg/L	105	90	110			
WG549045CCB4	CCB	08/23/22 14:51				U	mg/L		-3	3			
WG549045CCV7	CCV	08/23/22 16:43	WI220815-3	25		25.8	mg/L	103	90	110			
WG549045CCB7	CCB	08/23/22 16:43				U	mg/L		-3	3			
WG549045LFB2	LFB	08/23/22 16:44	WI220415-3	9.95		10.1	mg/L	102	90	110			
WG549045CCV8	CCV	08/23/22 16:46	WI220815-3	25		25.8	mg/L	103	90	110			
WG549045CCB8	CCB	08/23/22 16:46				U	mg/L		-3	3			
L75198-07DUP	DUP	08/23/22 16:46			204	201.6	mg/L				1	20	
L75198-08AS	AS	08/23/22 16:49	SO4TURB25X	10	401	412.4	mg/L	114	90	110			M3
WG549045CCV9	CCV	08/23/22 16:49	WI220815-3	25		25.7	mg/L	103	90	110			
WG549045CCB9	CCB	08/23/22 16:49				U	mg/L		-3	3			
WG549045CCV10	CCV	08/23/22 16:53	WI220815-3	25		25.7	mg/L	103	90	110			
WG549045CCB10	CCB	08/23/22 16:53				U	mg/L		-3	3			
WG549045CCV11	CCV	08/23/22 16:55	WI220815-3	25		25.8	mg/L	103	90	110			
WG549045CCB11	CCB	08/23/22 16:55				U	mg/L		-3	3			
WG549045CCV12	CCV	08/23/22 17:15	WI220815-3	25		25.9	mg/L	104	90	110			
WG549045CCB12	CCB	08/23/22 17:15				U	mg/L		-3	3			
WG549045CCV13	CCV	08/23/22 17:16	WI220815-3	25		25.7	mg/L	103	90	110			
WG549045CCB13	CCB	08/23/22 17:16				U	mg/L		-3	3			

GCC

ACZ Project ID: ***L75198***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		2.034	mg/L	102	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.015	0.015			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.025025		.025	mg/L	100	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	.1001		.101	mg/L	101	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.5005		.5029	mg/L	100	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		1.014	mg/L	101	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.03	0.03			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.5005	U	.5085	mg/L	102	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.5005	U	.514	mg/L	103	85	115	1	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.992	mg/L	99	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.03	0.03			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.5005	U	.5071	mg/L	101	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.5005	U	.54	mg/L	108	85	115	6	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		1.001	mg/L	100	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.03	0.03			

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG549521													
WG549521ICV	ICV	08/31/22 10:21	II220815-2	2		1.949	mg/L	97	95	105			
WG549521ICB	ICB	08/31/22 10:27				U	mg/L		-0.06	0.06			
WG549521PQV	PQV	08/31/22 10:30	II220802-1	.0501		.047	mg/L	94	70	130			
WG549521SIC	SIC	08/31/22 10:33	II220801-1	.1002		.089	mg/L	89	80	120			
WG549521LFB	LFB	08/31/22 10:39	II220827-3	.50045		.493	mg/L	99	85	115			
WG549521CCV1	CCV	08/31/22 11:10	II220815-1	1		.953	mg/L	95	90	110			
WG549521CCB1	CCB	08/31/22 11:13				U	mg/L		-0.06	0.06			
L75198-08AS	AS	08/31/22 11:23	II220827-3	.50045	U	.479	mg/L	96	85	115			
L75198-08ASD	ASD	08/31/22 11:26	II220827-3	.50045	U	.48	mg/L	96	85	115	0	20	
WG549521CCV2	CCV	08/31/22 11:48	II220815-1	1		.934	mg/L	93	90	110			
WG549521CCB2	CCB	08/31/22 11:51				U	mg/L		-0.06	0.06			
L75213-01AS	AS	08/31/22 11:57	II220827-3	.50045	.418	.891	mg/L	95	85	115			
L75213-01ASD	ASD	08/31/22 12:00	II220827-3	.50045	.418	.93	mg/L	102	85	115	4	20	
WG549521CCV3	CCV	08/31/22 12:09	II220815-1	1		.962	mg/L	96	90	110			
WG549521CCB3	CCB	08/31/22 12:12				U	mg/L		-0.06	0.06			

GCC Rio Grande ACZ Project ID: ***L75198***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L75198-01	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549521	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549132	Fluoride	SM4500F-C	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG548913	Lead, dissolved	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
	WG548734	Mercury, dissolved	M245.1 CVAA	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548633	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG548913	Selenium, dissolved	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
			M200.8 ICP-MS	EA	Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences.
	WG549521	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L75198-02	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549521	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549132	Fluoride	SM4500F-C	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG548812	Lead, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG548734	Mercury, dissolved	M245.1 CVAA	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548633	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG548850	Residue, Filterable (TDS) @180C	SM2540C	B7	Target analyte detected in prep / method blank at or above acceptance limit. Sample value is > 10X the concentration in the method blank.
	WG548913	Selenium, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
			M200.8 ICP-MS	EA	Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences.
	WG549521	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.

GCC Rio Grande ACZ Project ID: ***L75198***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L75198-03	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549521	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548812	Lead, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG548734	Mercury, dissolved	M245.1 CVAA	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548633	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG549521	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L75198-04	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549521	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548812	Lead, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG548734	Mercury, dissolved	M245.1 CVAA	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548633	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG548850	Residue, Filterable (TDS) @180C	SM2540C	B7	Target analyte detected in prep / method blank at or above acceptance limit. Sample value is > 10X the concentration in the method blank.
	WG548913	Selenium, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
			M200.8 ICP-MS	EA	Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences.
	WG549521	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.

GCC Rio Grande ACZ Project ID: ***L75198***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L75198-05	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549521	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548812	Lead, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG548734	Mercury, dissolved	M245.1 CVAA	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548633	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG549521	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L75198-06	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549521	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548812	Lead, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG548734	Mercury, dissolved	M245.1 CVAA	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548850	Residue, Filterable (TDS) @180C	SM2540C	B7	Target analyte detected in prep / method blank at or above acceptance limit. Sample value is > 10X the concentration in the method blank.
	WG548913	Selenium, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
			M200.8 ICP-MS	EA	Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences.
	WG549521	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L75198-07	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548913	Lead, dissolved	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
		Selenium, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
			M200.8 ICP-MS	EA	Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

GCC Rio Grande ACZ Project ID: ***L75198***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L75198-08	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549521	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG548812	Lead, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG548633	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	DB	Sample required dilution due to low bias result.
	WG548913	Selenium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
	WG549521	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L75198-09	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549182	Selenium, dissolved	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
			M200.8 ICP-MS	EA	Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L75198-10	WG549099	Chloride	SM4500Cl-E	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG549045	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L75198***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L75198
Date Received: 08/16/2022 11:59
Received By:
Date Printed: 8/17/2022

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
6685	3	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s) but was thawed by receipt at ACZ.

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L75198
Date Received: 08/16/2022 11:59
Received By:
Date Printed: 8/17/2022

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ LABORATORIES | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L75198

CHAIN of CUSTODY

Report to:

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road
Pueblo CO 81004
Telephone: 719-647-6861

Copy of Report to:

Name: Landon Beck
Company: Resource Hydrogeologic
E-mail: lbeck@resourcehydrogeologic.com
Telephone: (970) 459-4865

Invoice to:

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road
Pueblo CO 81004
Telephone: 719-647-6861

Copy of Invoice to:

Name:
Company:
E-mail:
Address:
Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ✓ NO

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes No ✓

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Amy Veek **Sampler's Site Information** **State** CO **Zip code** 81004 **Time Zone** MDT

***Sampler's Signature:** *I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material?

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	GW-COmpliance							
MW-14	8/15/2022 10:03	GW	3	✓							
MW-13	8/15/2022 10:57	GW	3	✓							
MW-6	8/15/2022 11:51	GW	3	✓							
MW-2B	8/15/2022 12:00	GW	3	✓							
MW-7	8/15/2022 12:21	GW	3	✓							
MW-8	8/15/2022 12:41	GW	3	✓							
MW-12	8/15/2022 14:15	GW	3	✓							
MW-11	8/15/2022 14:33	GW	3	✓							
MW-10	8/15/2022 15:23	GW	3	✓							
MW-9	8/15/2022 15:37	GW	3	✓							

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
	8/15/22 16:17		8/16/22 12:34

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L75198 Chain of Custod

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 05, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L77107

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 08, 2022. This project has been assigned to ACZ's project number, L77107. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L77107. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after December 05, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber has reviewed and approved this report.

GCC Rio Grande
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L77107-01***
Date Sampled: *11/07/22 10:42*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	11/18/22 22:03	keh1
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	11/15/22 19:19	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	11/18/22 22:03	keh1
Boron, dissolved	M200.7 ICP	5	0.278	B		mg/L	0.15	0.5	11/18/22 22:03	keh1
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	11/15/22 19:19	mfm
Calcium, dissolved	M200.7 ICP	5	414			mg/L	0.5	2.5	11/18/22 22:03	keh1
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/18/22 22:03	keh1
Cobalt, dissolved	M200.8 ICP-MS	5	0.0608			mg/L	0.00025	0.00125	11/15/22 19:19	mfm
Copper, dissolved	M200.7 ICP	5	<0.05	U	*	mg/L	0.05	0.25	11/18/22 22:03	keh1
Iron, dissolved	M200.7 ICP	5	0.319	B		mg/L	0.3	0.75	11/18/22 22:03	keh1
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	11/15/22 19:19	mfm
Lithium, dissolved	M200.7 ICP	5	0.429			mg/L	0.04	0.2	11/18/22 22:03	keh1
Magnesium, dissolved	M200.7 ICP	5	411			mg/L	1	5	11/18/22 22:03	keh1
Manganese, dissolved	M200.7 ICP	5	0.606			mg/L	0.05	0.25	11/18/22 22:03	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:09	mlh
Nickel, dissolved	M200.7 ICP	5	0.320			mg/L	0.04	0.2	11/18/22 22:03	keh1
Potassium, dissolved	M200.7 ICP	5	10.3			mg/L	1	5	11/18/22 22:03	keh1
Selenium, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.00125	11/15/22 19:19	mfm
Sodium, dissolved	M200.7 ICP	5	473			mg/L	1	5	11/18/22 22:03	keh1
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	11/18/22 22:03	keh1
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/18/22 22:03	keh1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-6

ACZ Sample ID: ***L77107-01***
Date Sampled: *11/07/22 10:42*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	445		*	mg/L	2	20	11/21/22 0:00	emk
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Total Alkalinity		1	445		*	mg/L	2	20	11/21/22 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-1.3			%			12/05/22 0:00	calc
Sum of Anions			78			meq/L			12/05/22 0:00	calc
Sum of Cations			76			meq/L			12/05/22 0:00	calc
Chloride	SM4500Cl-E	5	77.0		*	mg/L	5	10	11/16/22 11:46	bls
Fluoride	SM4500F-C	1	0.79		*	mg/L	0.15	0.35	12/01/22 12:54	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		2730			mg/L	1	30	12/05/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	12/05/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U	*	mg/L	0.02	0.1	11/08/22 23:36	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/08/22 23:36	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	5200		*	mg/L	40	80	11/10/22 13:02	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3180		*	mg/L	120	600	11/18/22 17:26	gkk
TDS (calculated)	Calculation		4840			mg/L			12/05/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.07						12/05/22 0:00	calc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L77107-02***
Date Sampled: *11/07/22 13:44*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	11/18/22 22:06	keh1
Arsenic, dissolved	M200.8 ICP-MS	5	<0.001	U		mg/L	0.001	0.005	11/15/22 19:21	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	11/18/22 22:06	keh1
Boron, dissolved	M200.7 ICP	5	0.160	B		mg/L	0.15	0.5	11/18/22 22:06	keh1
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	11/15/22 19:21	mfm
Calcium, dissolved	M200.7 ICP	5	454			mg/L	0.5	2.5	11/18/22 22:06	keh1
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/18/22 22:06	keh1
Cobalt, dissolved	M200.8 ICP-MS	5	0.00176			mg/L	0.00025	0.00125	11/15/22 19:21	mfm
Copper, dissolved	M200.7 ICP	5	<0.05	U	*	mg/L	0.05	0.25	11/18/22 22:06	keh1
Iron, dissolved	M200.7 ICP	5	<0.3	U		mg/L	0.3	0.75	11/18/22 22:06	keh1
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	11/15/22 19:21	mfm
Lithium, dissolved	M200.7 ICP	5	0.335			mg/L	0.04	0.2	11/18/22 22:06	keh1
Magnesium, dissolved	M200.7 ICP	5	365			mg/L	1	5	11/18/22 22:06	keh1
Manganese, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	11/18/22 22:06	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:10	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	11/18/22 22:06	keh1
Potassium, dissolved	M200.7 ICP	5	11.3			mg/L	1	5	11/18/22 22:06	keh1
Selenium, dissolved	M200.8 ICP-MS	5	0.0371			mg/L	0.0005	0.00125	11/15/22 19:21	mfm
Sodium, dissolved	M200.7 ICP	5	306			mg/L	1	5	11/18/22 22:06	keh1
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	11/18/22 22:06	keh1
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/18/22 22:06	keh1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-7

ACZ Sample ID: ***L77107-02***
Date Sampled: *11/07/22 13:44*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	250		*	mg/L	2	20	11/21/22 0:00	emk
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Total Alkalinity		1	250		*	mg/L	2	20	11/21/22 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-2.9			%			12/05/22 0:00	calc
Sum of Anions			70			meq/L			12/05/22 0:00	calc
Sum of Cations			66			meq/L			12/05/22 0:00	calc
Chloride	SM4500Cl-E	1	41.0		*	mg/L	1	2	11/16/22 10:34	bls
Fluoride	SM4500F-C	1	0.37		*	mg/L	0.15	0.35	12/01/22 13:09	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		2640			mg/L	1	30	12/05/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		4.65			mg/L	0.06	0.3	12/05/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	3	4.65		*	mg/L	0.06	0.3	11/09/22 0:01	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/08/22 23:37	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4690		*	mg/L	40	80	11/10/22 13:05	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	3000		*	mg/L	120	600	11/18/22 17:26	gkk
TDS (calculated)	Calculation		4350			mg/L			12/05/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.08						12/05/22 0:00	calc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L77107-03***
Date Sampled: *11/07/22 12:00*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	11/18/22 22:09	keh1
Arsenic, dissolved	M200.8 ICP-MS	2	0.00533			mg/L	0.0004	0.002	11/15/22 19:23	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	11/18/22 22:09	keh1
Boron, dissolved	M200.7 ICP	2	0.872			mg/L	0.06	0.2	11/18/22 22:09	keh1
Cadmium, dissolved	M200.8 ICP-MS	2	<0.0001	U		mg/L	0.0001	0.0005	11/15/22 19:23	mfm
Calcium, dissolved	M200.7 ICP	2	69.6			mg/L	0.2	1	11/18/22 22:09	keh1
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	11/18/22 22:09	keh1
Cobalt, dissolved	M200.8 ICP-MS	2	0.000517			mg/L	0.0001	0.0005	11/15/22 19:23	mfm
Copper, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.1	11/18/22 22:09	keh1
Iron, dissolved	M200.7 ICP	2	0.858			mg/L	0.12	0.3	11/18/22 22:09	keh1
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	11/15/22 19:23	mfm
Lithium, dissolved	M200.7 ICP	2	0.372			mg/L	0.016	0.08	11/18/22 22:09	keh1
Magnesium, dissolved	M200.7 ICP	2	27.6			mg/L	0.4	2	11/18/22 22:09	keh1
Manganese, dissolved	M200.7 ICP	2	0.245			mg/L	0.02	0.1	11/18/22 22:09	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:11	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	11/18/22 22:09	keh1
Potassium, dissolved	M200.7 ICP	2	5.65			mg/L	0.4	2	11/18/22 22:09	keh1
Selenium, dissolved	M200.8 ICP-MS	5	<0.0005	U	*	mg/L	0.0005	0.00125	11/17/22 20:15	mfm
Sodium, dissolved	M200.7 ICP	2	1160			mg/L	0.4	2	11/18/22 22:09	keh1
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	11/18/22 22:09	keh1
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	11/18/22 22:09	keh1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-2B

ACZ Sample ID: ***L77107-03***
Date Sampled: *11/07/22 12:00*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1110		*	mg/L	2	20	11/21/22 0:00	emk
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Total Alkalinity		1	1110		*	mg/L	2	20	11/21/22 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-3.4			%			12/05/22 0:00	calc
Sum of Anions			61.0			meq/L			12/05/22 0:00	calc
Sum of Cations			57.0			meq/L			12/05/22 0:00	calc
Chloride	SM4500Cl-E	5	289		*	mg/L	5	10	11/16/22 11:47	bls
Fluoride	SM4500F-C	1	0.93		*	mg/L	0.15	0.35	12/01/22 13:17	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		287			mg/L	0.5	10	12/05/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.263			mg/L	0.02	0.1	12/05/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.263		*	mg/L	0.02	0.1	11/08/22 23:39	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/08/22 23:39	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	3770		*	mg/L	100	200	11/10/22 13:08	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	50	1460		*	mg/L	50	250	11/18/22 17:13	gkk
TDS (calculated)	Calculation		3690			mg/L			12/05/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.02						12/05/22 0:00	calc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-8

ACZ Sample ID: ***L77107-04***
Date Sampled: *11/07/22 13:19*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	11/18/22 22:12	keh1
Arsenic, dissolved	M200.8 ICP-MS	2	0.00542			mg/L	0.0004	0.002	11/15/22 19:32	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	11/18/22 22:12	keh1
Boron, dissolved	M200.7 ICP	2	0.853			mg/L	0.06	0.2	11/18/22 22:12	keh1
Cadmium, dissolved	M200.8 ICP-MS	2	<0.0001	U		mg/L	0.0001	0.0005	11/15/22 19:32	mfm
Calcium, dissolved	M200.7 ICP	2	68.1			mg/L	0.2	1	11/18/22 22:12	keh1
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	11/18/22 22:12	keh1
Cobalt, dissolved	M200.8 ICP-MS	2	0.000505			mg/L	0.0001	0.0005	11/15/22 19:32	mfm
Copper, dissolved	M200.7 ICP	2	<0.02	U	*	mg/L	0.02	0.1	11/18/22 22:12	keh1
Iron, dissolved	M200.7 ICP	2	0.886			mg/L	0.12	0.3	11/18/22 22:12	keh1
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	11/15/22 19:32	mfm
Lithium, dissolved	M200.7 ICP	2	0.368			mg/L	0.016	0.08	11/18/22 22:12	keh1
Magnesium, dissolved	M200.7 ICP	2	27.1			mg/L	0.4	2	11/18/22 22:12	keh1
Manganese, dissolved	M200.7 ICP	2	0.236			mg/L	0.02	0.1	11/18/22 22:12	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:14	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	11/18/22 22:12	keh1
Potassium, dissolved	M200.7 ICP	2	5.35			mg/L	0.4	2	11/18/22 22:12	keh1
Selenium, dissolved	M200.8 ICP-MS	5	<0.0005	U	*	mg/L	0.0005	0.00125	11/17/22 20:17	mfm
Sodium, dissolved	M200.7 ICP	2	1160			mg/L	0.4	2	11/18/22 22:12	keh1
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	11/18/22 22:12	keh1
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	11/18/22 22:12	keh1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-8

ACZ Sample ID: ***L77107-04***
Date Sampled: *11/07/22 13:19*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1130		*	mg/L	2	20	11/21/22 0:00	emk
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Total Alkalinity		1	1130		*	mg/L	2	20	11/21/22 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-3.4			%			12/05/22 0:00	calc
Sum of Anions			61			meq/L			12/05/22 0:00	calc
Sum of Cations			57			meq/L			12/05/22 0:00	calc
Chloride	SM4500Cl-E	5	297		*	mg/L	5	10	11/16/22 11:47	bls
Fluoride	SM4500F-C	1	0.90		*	mg/L	0.15	0.35	12/01/22 13:21	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		282			mg/L	0.5	10	12/05/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	12/05/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U	*	mg/L	0.02	0.1	11/08/22 23:40	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/08/22 23:40	pjb
Residue, Filterable (TDS) @180C	SM2540C	10	3840		*	mg/L	200	400	11/10/22 13:10	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	50	1450		*	mg/L	50	250	11/18/22 17:15	gkk
TDS (calculated)	Calculation		3700			mg/L			12/05/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.04						12/05/22 0:00	calc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L77107-05***
Date Sampled: *11/07/22 15:25*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	11/18/22 22:15	keh1
Arsenic, dissolved	M200.8 ICP-MS	1	0.00070	B		mg/L	0.0002	0.001	11/15/22 19:34	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	11/18/22 22:15	keh1
Boron, dissolved	M200.7 ICP	5	1.26			mg/L	0.15	0.5	11/18/22 22:15	keh1
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	11/17/22 20:19	mfm
Calcium, dissolved	M200.7 ICP	5	418			mg/L	0.5	2.5	11/18/22 22:15	keh1
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/18/22 22:15	keh1
Cobalt, dissolved	M200.8 ICP-MS	1	0.00628			mg/L	0.00005	0.00025	11/15/22 19:34	mfm
Copper, dissolved	M200.7 ICP	5	0.051	B	*	mg/L	0.05	0.25	11/18/22 22:15	keh1
Iron, dissolved	M200.7 ICP	5	0.513	B		mg/L	0.3	0.75	11/18/22 22:15	keh1
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	11/17/22 20:19	mfm
Lithium, dissolved	M200.7 ICP	5	0.375			mg/L	0.04	0.2	11/18/22 22:15	keh1
Magnesium, dissolved	M200.7 ICP	5	158			mg/L	1	5	11/18/22 22:15	keh1
Manganese, dissolved	M200.7 ICP	5	0.552			mg/L	0.05	0.25	11/18/22 22:15	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:15	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	11/18/22 22:15	keh1
Potassium, dissolved	M200.7 ICP	5	8.95			mg/L	1	5	11/18/22 22:15	keh1
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.00025	11/15/22 19:34	mfm
Sodium, dissolved	M200.7 ICP	5	741			mg/L	1	5	11/18/22 22:15	keh1
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	11/18/22 22:15	keh1
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/18/22 22:15	keh1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-9

ACZ Sample ID: ***L77107-05***
Date Sampled: *11/07/22 15:25*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	347		*	mg/L	2	20	11/21/22 0:00	emk
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Total Alkalinity		1	347		*	mg/L	2	20	11/21/22 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-2.9			%			12/05/22 0:00	calc
Sum of Anions			71			meq/L			12/05/22 0:00	calc
Sum of Cations			67			meq/L			12/05/22 0:00	calc
Chloride	SM4500Cl-E	1	45.9		*	mg/L	1	2	11/16/22 10:36	bls
Fluoride	SM4500F-C	1	0.27	B	*	mg/L	0.15	0.35	12/01/22 13:26	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		1690			mg/L	1	30	12/05/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	12/05/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U	*	mg/L	0.02	0.1	11/08/22 23:41	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/08/22 23:41	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4590		*	mg/L	40	80	11/14/22 13:09	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	120	2970		*	mg/L	120	600	11/18/22 17:26	gkk
TDS (calculated)	Calculation		4550			mg/L			12/05/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.01						12/05/22 0:00	calc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L77107-06***
Date Sampled: *11/07/22 15:08*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	11/18/22 22:18	keh1
Arsenic, dissolved	M200.8 ICP-MS	5	0.00264	B		mg/L	0.001	0.005	11/15/22 19:36	mfm
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	11/18/22 22:18	keh1
Boron, dissolved	M200.7 ICP	5	1.40			mg/L	0.15	0.5	11/18/22 22:18	keh1
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	11/15/22 19:36	mfm
Calcium, dissolved	M200.7 ICP	5	46.2			mg/L	0.5	2.5	11/18/22 22:18	keh1
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/18/22 22:18	keh1
Cobalt, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	11/15/22 19:36	mfm
Copper, dissolved	M200.7 ICP	5	0.060	B	*	mg/L	0.05	0.25	11/18/22 22:18	keh1
Iron, dissolved	M200.7 ICP	5	0.529	B		mg/L	0.3	0.75	11/18/22 22:18	keh1
Lead, dissolved	M200.8 ICP-MS	5	<0.0005	U		mg/L	0.0005	0.0025	11/15/22 19:36	mfm
Lithium, dissolved	M200.7 ICP	5	0.315			mg/L	0.04	0.2	11/18/22 22:18	keh1
Magnesium, dissolved	M200.7 ICP	5	14.7			mg/L	1	5	11/18/22 22:18	keh1
Manganese, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	11/18/22 22:18	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:16	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	11/18/22 22:18	keh1
Potassium, dissolved	M200.7 ICP	5	6.29			mg/L	1	5	11/18/22 22:18	keh1
Selenium, dissolved	M200.8 ICP-MS	5	<0.0005	U	*	mg/L	0.0005	0.00125	11/15/22 19:36	mfm
Sodium, dissolved	M200.7 ICP	5	1240			mg/L	1	5	11/18/22 22:18	keh1
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	11/18/22 22:18	keh1
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/18/22 22:18	keh1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-10

ACZ Sample ID: ***L77107-06***
Date Sampled: *11/07/22 15:08*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	656		*	mg/L	2	20	11/21/22 0:00	emk
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Total Alkalinity		1	656		*	mg/L	2	20	11/21/22 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-4.9			%			12/05/22 0:00	calc
Sum of Anions			64			meq/L			12/05/22 0:00	calc
Sum of Cations			58			meq/L			12/05/22 0:00	calc
Chloride	SM4500Cl-E	5	376		*	mg/L	5	10	11/16/22 11:48	bls
Fluoride	SM4500F-C	1	1.02		*	mg/L	0.15	0.35	12/01/22 17:50	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		176			mg/L	1	30	12/05/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	12/05/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U	*	mg/L	0.02	0.1	11/08/22 23:44	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/08/22 23:44	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	4030		*	mg/L	40	80	11/10/22 13:18	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	50	1900		*	mg/L	50	250	11/18/22 17:15	gkk
TDS (calculated)	Calculation		3980			mg/L			12/05/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.01						12/05/22 0:00	calc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L77107-07***
Date Sampled: *11/07/22 14:27*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	11/18/22 22:21	keh1
Arsenic, dissolved	M200.8 ICP-MS	1	0.00029	B		mg/L	0.0002	0.001	11/15/22 19:38	mfm
Beryllium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	11/18/22 22:21	keh1
Boron, dissolved	M200.7 ICP	1	0.432			mg/L	0.03	0.1	11/18/22 22:21	keh1
Cadmium, dissolved	M200.8 ICP-MS	1	<0.00005	U		mg/L	0.00005	0.00025	11/15/22 19:38	mfm
Calcium, dissolved	M200.7 ICP	1	68.3			mg/L	0.1	0.5	11/18/22 22:21	keh1
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/18/22 22:21	keh1
Cobalt, dissolved	M200.8 ICP-MS	1	0.00232			mg/L	0.00005	0.00025	11/15/22 19:38	mfm
Copper, dissolved	M200.7 ICP	1	<0.01	U	*	mg/L	0.01	0.05	11/18/22 22:21	keh1
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	11/18/22 22:21	keh1
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	11/15/22 19:38	mfm
Lithium, dissolved	M200.7 ICP	1	0.147			mg/L	0.008	0.04	11/18/22 22:21	keh1
Magnesium, dissolved	M200.7 ICP	1	33.9			mg/L	0.2	1	11/18/22 22:21	keh1
Manganese, dissolved	M200.7 ICP	1	0.017	B		mg/L	0.01	0.05	11/18/22 22:21	keh1
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:17	mlh
Nickel, dissolved	M200.7 ICP	1	0.0110	B		mg/L	0.008	0.04	11/18/22 22:21	keh1
Potassium, dissolved	M200.7 ICP	1	3.65			mg/L	0.2	1	11/18/22 22:21	keh1
Selenium, dissolved	M200.8 ICP-MS	1	0.162		*	mg/L	0.0001	0.00025	11/15/22 19:38	mfm
Sodium, dissolved	M200.7 ICP	1	412			mg/L	0.2	1	11/18/22 22:21	keh1
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	11/18/22 22:21	keh1
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	11/18/22 22:21	keh1

GCC Rio Grande
Project ID: 105495
Sample ID: MW-11

ACZ Sample ID: ***L77107-07***
Date Sampled: *11/07/22 14:27*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	839		*	mg/L	2	20	11/21/22 0:00	emk
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Total Alkalinity		1	839		*	mg/L	2	20	11/21/22 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-7.7			%			12/05/22 0:00	calc
Sum of Anions			28			meq/L			12/05/22 0:00	calc
Sum of Cations			24			meq/L			12/05/22 0:00	calc
Chloride	SM4500Cl-E	5	125		*	mg/L	5	10	11/16/22 11:49	bls
Fluoride	SM4500F-C	1	0.76		*	mg/L	0.15	0.35	12/01/22 18:08	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		310			mg/L	0.2	5	12/05/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	12/05/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U	*	mg/L	0.02	0.1	11/08/22 23:46	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/08/22 23:46	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	1590		*	mg/L	20	40	11/10/22 13:21	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	50	359		*	mg/L	50	250	11/18/22 17:15	gkk
TDS (calculated)	Calculation		1510			mg/L			12/05/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.05						12/05/22 0:00	calc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L77107-08***
Date Sampled: *11/07/22 14:09*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	11/23/22 1:18	wtc
Arsenic, dissolved	M200.8 ICP-MS	2	0.00081	B		mg/L	0.0004	0.002	11/15/22 19:40	mfm
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	11/23/22 1:18	wtc
Boron, dissolved	M200.7 ICP	2	0.835			mg/L	0.06	0.2	11/23/22 21:02	wtc
Cadmium, dissolved	M200.8 ICP-MS	2	<0.0001	U		mg/L	0.0001	0.0005	11/15/22 19:40	mfm
Calcium, dissolved	M200.7 ICP	2	26.2			mg/L	0.2	1	11/23/22 1:18	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	11/23/22 1:18	wtc
Cobalt, dissolved	M200.8 ICP-MS	2	0.00174			mg/L	0.0001	0.0005	11/15/22 19:40	mfm
Copper, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	11/23/22 1:18	wtc
Iron, dissolved	M200.7 ICP	2	<0.12	U		mg/L	0.12	0.3	11/23/22 1:18	wtc
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	11/15/22 19:40	mfm
Lithium, dissolved	M200.7 ICP	2	0.204			mg/L	0.016	0.08	11/23/22 1:18	wtc
Magnesium, dissolved	M200.7 ICP	2	7.38			mg/L	0.4	2	11/23/22 1:18	wtc
Manganese, dissolved	M200.7 ICP	2	0.066	B		mg/L	0.02	0.1	11/23/22 1:18	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:18	mlh
Nickel, dissolved	M200.7 ICP	2	0.0992			mg/L	0.016	0.08	11/23/22 1:18	wtc
Potassium, dissolved	M200.7 ICP	2	4.10			mg/L	0.4	2	11/23/22 1:18	wtc
Selenium, dissolved	M200.8 ICP-MS	5	0.00084	B	*	mg/L	0.0005	0.00125	11/22/22 12:18	kja
Sodium, dissolved	M200.7 ICP	2	861			mg/L	0.4	2	11/23/22 1:18	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	11/23/22 1:18	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	11/23/22 1:18	wtc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-12

ACZ Sample ID: ***L77107-08***
Date Sampled: *11/07/22 14:09*
Date Received: *11/08/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	553		*	mg/L	2	20	11/21/22 0:00	emk
Carbonate as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Hydroxide as CaCO3		1	<2	U	*	mg/L	2	20	11/21/22 0:00	emk
Total Alkalinity		1	553		*	mg/L	2	20	11/21/22 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-4.8			%			12/05/22 0:00	calc
Sum of Anions			44			meq/L			12/05/22 0:00	calc
Sum of Cations			40			meq/L			12/05/22 0:00	calc
Chloride	SM4500Cl-E	25	1000		*	mg/L	25	50	11/16/22 11:49	bls
Fluoride	SM4500F-C	1	1.65		*	mg/L	0.15	0.35	12/01/22 18:13	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		96			mg/L	0.5	10	12/05/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		4.18			mg/L	0.06	0.3	12/05/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	3	5.73		*	mg/L	0.06	0.3	11/09/22 0:03	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	1.55		*	mg/L	0.01	0.05	11/08/22 23:52	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	2450		*	mg/L	40	80	11/10/22 13:23	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	195		*	mg/L	5	25	11/18/22 16:49	gkk
TDS (calculated)	Calculation		2460			mg/L			12/05/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.00						12/05/22 0:00	calc

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555373													
WG555373PBW	PBW	11/21/22 15:06				10.4	mg/L		-20	20			
WG555373LCSW3	LCSW	11/21/22 15:25	WC221109-1	820		762.3	mg/L	93	90	110			
L77107-01DUP	DUP	11/21/22 15:48			445	429.9	mg/L				3	20	
WG555373LCSW6	LCSW	11/21/22 19:51	WC221109-1	820		767.4	mg/L	94	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		1.996	mg/L	100	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.15	0.15			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.2502		.253	mg/L	101	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	200.4102		203.3	mg/L	101	1	200			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	1.0008		1.004	mg/L	100	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	1.0008	U	1.03	mg/L	103	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	1.0008	U	1.063	mg/L	106	85	115	3	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		1.012	mg/L	101	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.15	0.15			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		1.008	mg/L	101	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.15	0.15			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		1.014	mg/L	101	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.15	0.15			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		2.012	mg/L	101	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.15	0.15			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.2502		.25	mg/L	100	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	200.4102		208.4	mg/L	104	1	200			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	1.0008		.976	mg/L	98	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		.996	mg/L	100	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.15	0.15			
L76621-05AS	AS	11/23/22 1:00	II221104-3	1.0008	U	1.008	mg/L	101	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	1.0008	U	1.003	mg/L	100	85	115	0	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		.996	mg/L	100	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.15	0.15			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.997	mg/L	100	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.15	0.15			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555029													
WG555029ICV	ICV	11/15/22 18:43	MS220930-3	.05		.04873	mg/L	97	90	110			
WG555029ICB	ICB	11/15/22 18:45				U	mg/L		-0.00044	0.00044			
WG555029LFB	LFB	11/15/22 18:47	MS221101-6	.05005		.04948	mg/L	99	85	115			
WG555029CCV1	CCV	11/15/22 19:06	MS221025-2	.1001		.09754	mg/L	97	90	110			
WG555029CCB1	CCB	11/15/22 19:08				U	mg/L		-0.0006	0.0006			
L77107-03AS	AS	11/15/22 19:25	MS221101-6	.1001	.00533	.09662	mg/L	91	70	130			
L77107-03ASD	ASD	11/15/22 19:27	MS221101-6	.1001	.00533	.10091	mg/L	95	70	130	4	20	
WG555029CCV2	CCV	11/15/22 19:28	MS221025-2	.1001		.09997	mg/L	100	90	110			
WG555029CCB2	CCB	11/15/22 19:30				U	mg/L		-0.0006	0.0006			
WG555029CCV3	CCV	11/15/22 19:42	MS221025-2	.1001		.09773	mg/L	98	90	110			
WG555029CCB3	CCB	11/15/22 19:44				U	mg/L		-0.0006	0.0006			

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		1.962	mg/L	98	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.03	0.03			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.0501		.055	mg/L	110	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	.1002		.102	mg/L	102	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	.5005		.496	mg/L	99	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	.5005	U	.461	mg/L	92	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	.5005	U	.497	mg/L	99	85	115	8	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		.993	mg/L	99	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.03	0.03			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		.996	mg/L	100	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.03	0.03			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		.996	mg/L	100	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.03	0.03			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		1.986	mg/L	99	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.03	0.03			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.0501		.055	mg/L	110	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	.1002		.1	mg/L	100	80	120			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	.5005		.5	mg/L	100	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		.991	mg/L	99	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.03	0.03			
L76621-05AS	AS	11/23/22 1:00	II221104-3	.5005	U	.533	mg/L	106	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	.5005	U	.507	mg/L	101	85	115	5	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		.997	mg/L	100	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.03	0.03			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.998	mg/L	100	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		2.008	mg/L	100	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.09	0.09			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.1001		.1	mg/L	100	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	.1001		.096	mg/L	96	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	.5005		.494	mg/L	99	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	.5005	.432	.92	mg/L	98	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	.5005	.432	.954	mg/L	104	85	115	4	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		1.006	mg/L	101	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.09	0.09			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		1.015	mg/L	102	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.09	0.09			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		1.014	mg/L	101	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.09	0.09			
WG555506													
WG555506ICV	ICV	11/23/22 19:47	II221116-1	2		1.96	mg/L	98	95	105			
WG555506ICB	ICB	11/23/22 19:53				U	mg/L		-0.09	0.09			
WG555506PQV	PQV	11/23/22 19:56	II221109-2	.1001		.104	mg/L	104	70	130			
WG555506SIC	SIC	11/23/22 19:59	II221102-3	.1001		.105	mg/L	105	80	120			
WG555506LFB	LFB	11/23/22 20:05	II221104-3	.5005		.506	mg/L	101	85	115			
WG555506CCV1	CCV	11/23/22 20:35	II221110-1	1		1.021	mg/L	102	90	110			
WG555506CCB1	CCB	11/23/22 20:38				U	mg/L		-0.09	0.09			
L76621-05AS	AS	11/23/22 20:50	II221104-3	.5005	.096	.663	mg/L	113	85	115			
L76621-05ASD	ASD	11/23/22 20:53	II221104-3	.5005	.096	.634	mg/L	107	85	115	4	20	
WG555506CCV2	CCV	11/23/22 21:11	II221110-1	1		.995	mg/L	100	90	110			
WG555506CCB2	CCB	11/23/22 21:14				U	mg/L		-0.09	0.09			
WG555506CCV3	CCV	11/23/22 21:17	II221110-1	1		1.014	mg/L	101	90	110			
WG555506CCB3	CCB	11/23/22 21:20				U	mg/L		-0.09	0.09			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555029													
WG555029ICV	ICV	11/15/22 18:43	MS220930-3	.05		.05111	mg/L	102	90	110			
WG555029ICB	ICB	11/15/22 18:45				U	mg/L		-0.00011	0.00011			
WG555029LFB	LFB	11/15/22 18:47	MS221101-6	.05005		.049561	mg/L	99	85	115			
WG555029CCV1	CCV	11/15/22 19:06	MS221025-2	.1001		.101873	mg/L	102	90	110			
WG555029CCB1	CCB	11/15/22 19:08				U	mg/L		-0.00015	0.00015			
L77107-03AS	AS	11/15/22 19:25	MS221101-6	.1001	U	.096355	mg/L	96	70	130			
L77107-03ASD	ASD	11/15/22 19:27	MS221101-6	.1001	U	.100168	mg/L	100	70	130	4	20	
WG555029CCV2	CCV	11/15/22 19:28	MS221025-2	.1001		.102038	mg/L	102	90	110			
WG555029CCB2	CCB	11/15/22 19:30				.000111	mg/L		-0.00015	0.00015			
WG555029CCV3	CCV	11/15/22 19:42	MS221025-2	.1001		.100564	mg/L	100	90	110			
WG555029CCB3	CCB	11/15/22 19:44				U	mg/L		-0.00015	0.00015			
WG555232													
WG555232ICV	ICV	11/17/22 19:44	MS220930-3	.05		.051636	mg/L	103	90	110			
WG555232ICB	ICB	11/17/22 19:45				U	mg/L		-0.00011	0.00011			
WG555232LFB	LFB	11/17/22 19:47	MS221101-6	.05005		.050408	mg/L	101	85	115			
WG555232CCV1	CCV	11/17/22 20:06	MS221025-2	.1001		.10168	mg/L	102	90	110			
WG555232CCB1	CCB	11/17/22 20:08				U	mg/L		-0.00015	0.00015			
L77110-01AS	AS	11/17/22 20:25	MS221101-6	.1001	U	.098917	mg/L	99	70	130			
L77110-01ASD	ASD	11/17/22 20:27	MS221101-6	.1001	U	.097148	mg/L	97	70	130	2	20	
WG555232CCV2	CCV	11/17/22 20:28	MS221025-2	.1001		.102813	mg/L	103	90	110			
WG555232CCB2	CCB	11/17/22 20:30				U	mg/L		-0.00015	0.00015			
WG555232CCV3	CCV	11/17/22 20:41	MS221025-2	.1001		.101728	mg/L	102	90	110			
WG555232CCB3	CCB	11/17/22 20:43				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	100		97.35	mg/L	97	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.3	0.3			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.50055		.48	mg/L	96	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	200.72055		194.7	mg/L	97	1	200			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	67.99353		66.81	mg/L	98	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	67.99353	68.3	131	mg/L	92	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	67.99353	68.3	131.9	mg/L	94	85	115	1	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	50		48.78	mg/L	98	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.3	0.3			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	50		48.81	mg/L	98	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.3	0.3			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	50		48.97	mg/L	98	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.3	0.3			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	100		98.32	mg/L	98	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.3	0.3			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.50055		.57	mg/L	114	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	200.72055		197.6	mg/L	98	1	200			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	67.99353		67.22	mg/L	99	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	50		49.22	mg/L	98	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.3	0.3			
L76621-05AS	AS	11/23/22 1:00	II221104-3	67.99353	59	122.1	mg/L	93	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	67.99353	59	121	mg/L	91	85	115	1	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	50		48.93	mg/L	98	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.3	0.3			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	50		49.01	mg/L	98	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555050													
WG555050ICV	ICV	11/16/22 10:27	WI220502-12	54.945		54.62	mg/L	99	90	110			
WG555050ICB	ICB	11/16/22 10:27				U	mg/L		-3	3			
WG555050LFB1	LFB	11/16/22 10:28	WI221025-9	30.03		28.32	mg/L	94	90	110			
WG555050CCV1	CCV	11/16/22 10:33	WI221021-5	49.95		50.3	mg/L	101	90	110			
WG555050CCB1	CCB	11/16/22 10:33				U	mg/L		-3	3			
L77107-02DUP	DUP	11/16/22 10:34			41	40.78	mg/L				1	20	
L77107-05AS	AS	11/16/22 10:36	WI221025-9	30.03	45.9	72.91	mg/L	90	90	110			
WG555050LFB2	LFB	11/16/22 10:43	WI221025-9	30.03		30.21	mg/L	101	90	110			
WG555050CCV3	CCV	11/16/22 10:45	WI221021-5	49.95		53.3	mg/L	107	90	110			
WG555050CCB3	CCB	11/16/22 10:45				U	mg/L		-3	3			
WG555050CCV4	CCV	11/16/22 10:50	WI221021-5	49.95		50.93	mg/L	102	90	110			
WG555050CCB4	CCB	11/16/22 10:50				U	mg/L		-3	3			
WG555050CCV10	CCV	11/16/22 11:45	WI221021-5	49.95		49.56	mg/L	99	90	110			
WG555050CCB10	CCB	11/16/22 11:45				U	mg/L		-3	3			
L77107-06DUP	DUP	11/16/22 11:48			376	385.07	mg/L				2	20	
WG555050CCV2	CCV	11/16/22 11:50	WI221021-5	49.95		49.66	mg/L	99	90	110			
WG555050CCB2	CCB	11/16/22 11:50				U	mg/L		-3	3			
WG555050CCV11	CCV	11/16/22 11:55	WI221021-5	49.95		50.57	mg/L	101	90	110			
WG555050CCB11	CCB	11/16/22 11:55				U	mg/L		-3	3			
WG555050CCV12	CCV	11/16/22 12:13	WI221021-5	49.95		51.02	mg/L	102	90	110			
WG555050CCB12	CCB	11/16/22 12:14				U	mg/L		-3	3			
L77107-01AS	AS	11/16/22 12:14	5XCL	30	77	104.52	mg/L	92	90	110			
WG555050CCV13	CCV	11/16/22 12:15	WI221021-5	49.95		50.2	mg/L	101	90	110			
WG555050CCB13	CCB	11/16/22 12:15				U	mg/L		-3	3			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		1.999	mg/L	100	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.06	0.06			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.0501		.037	mg/L	74	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	.1002		.083	mg/L	83	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	.501		.489	mg/L	98	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	.501	U	.444	mg/L	89	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	.501	U	.494	mg/L	99	85	115	11	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		.992	mg/L	99	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.06	0.06			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		1.01	mg/L	101	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.06	0.06			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		1.006	mg/L	101	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.06	0.06			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		1.929	mg/L	96	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.06	0.06			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.0501		.058	mg/L	116	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	.1002		.099	mg/L	99	80	120			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	.501		.486	mg/L	97	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		.978	mg/L	98	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.06	0.06			
L76621-05AS	AS	11/23/22 1:00	II221104-3	.501	U	.516	mg/L	103	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	.501	U	.492	mg/L	98	85	115	5	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		.953	mg/L	95	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.06	0.06			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.96	mg/L	96	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555029													
WG555029ICV	ICV	11/15/22 18:43	MS220930-3	.05		.052278	mg/L	105	90	110			
WG555029ICB	ICB	11/15/22 18:45				U	mg/L		-0.00011	0.00011			
WG555029LFB	LFB	11/15/22 18:47	MS221101-6	.05005		.05089	mg/L	102	85	115			
WG555029CCV1	CCV	11/15/22 19:06	MS221025-2	.1001		.101985	mg/L	102	90	110			
WG555029CCB1	CCB	11/15/22 19:08				U	mg/L		-0.00015	0.00015			
L77107-03AS	AS	11/15/22 19:25	MS221101-6	.1001	.000517	.101843	mg/L	101	70	130			
L77107-03ASD	ASD	11/15/22 19:27	MS221101-6	.1001	.000517	.107256	mg/L	107	70	130	5	20	
WG555029CCV2	CCV	11/15/22 19:28	MS221025-2	.1001		.104379	mg/L	104	90	110			
WG555029CCB2	CCB	11/15/22 19:30				.000113	mg/L		-0.00015	0.00015			
WG555029CCV3	CCV	11/15/22 19:42	MS221025-2	.1001		.104158	mg/L	104	90	110			
WG555029CCB3	CCB	11/15/22 19:44				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		1.947	mg/L	97	95	105			
WG555198ICB	ICB	11/18/22 21:47				.014	mg/L		-0.03	0.03			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.05005		.059	mg/L	118	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	.1001		.096	mg/L	96	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	.5005		.496	mg/L	99	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	.5005	U	.39	mg/L	78	85	115			MA
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	.5005	U	.429	mg/L	86	85	115	10	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		.987	mg/L	99	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.03	0.03			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		.999	mg/L	100	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.03	0.03			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		1	mg/L	100	90	110			
WG555198CCB3	CCB	11/18/22 23:31				.01	mg/L		-0.03	0.03			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		1.967	mg/L	98	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.03	0.03			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.05005		.054	mg/L	108	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	.1001		.088	mg/L	88	80	120			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	.5005		.483	mg/L	97	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		.986	mg/L	99	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.03	0.03			
L76621-05AS	AS	11/23/22 1:00	II221104-3	.5005	U	.528	mg/L	105	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	.5005	U	.506	mg/L	101	85	115	4	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		1.008	mg/L	101	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.03	0.03			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.974	mg/L	97	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555874													
WG555874ICV	ICV	12/01/22 12:33	WC221118-10	2.008		1.94	mg/L	97	90	110			
WG555874ICB	ICB	12/01/22 12:38				U	mg/L		-0.3	0.3			
WG555874LFB	LFB	12/01/22 12:47	WC221011-2	5.02		5	mg/L	100	90	110			
L77107-01AS	AS	12/01/22 13:00	WC221011-2	5.02	.79	5.25	mg/L	89	90	110			M2
L77107-01ASD	ASD	12/01/22 13:05	WC221011-2	5.02	.79	5.27	mg/L	89	90	110	0	20	M2
WG555874CCV1	CCV	12/01/22 13:39	WC221118-10	2.008		2.028	mg/L	101	90	110			
WG555874CCB1	CCB	12/01/22 13:47				U	mg/L		-0.3	0.3			
WG555874CCV2	CCV	12/01/22 14:59	WC221118-10	2.008		2.111	mg/L	105	90	110			
WG555874CCB2	CCB	12/01/22 15:07				U	mg/L		-0.3	0.3			
WG555874CCV3	CCV	12/01/22 15:43	WC221118-10	2.008		2.09	mg/L	104	90	110			
WG555874CCB3	CCB	12/01/22 15:50				U	mg/L		-0.3	0.3			
WG555911													
WG555911ICV	ICV	12/01/22 17:27	WC221201-1	2.008		2.01	mg/L	100	90	110			
WG555911ICB	ICB	12/01/22 17:35				U	mg/L		-0.3	0.3			
WG555911LFB1	LFB	12/01/22 17:45	WC221011-2	5.02		5.3	mg/L	106	90	110			
L77107-06AS	AS	12/01/22 17:56	WC221011-2	5.02	1.02	6.24	mg/L	104	90	110			
L77107-06ASD	ASD	12/01/22 18:00	WC221011-2	5.02	1.02	6.24	mg/L	104	90	110	0	20	
WG555911CCV1	CCV	12/01/22 18:39	WC221201-1	2.008		1.988	mg/L	99	90	110			
WG555911CCB1	CCB	12/01/22 18:47				U	mg/L		-0.3	0.3			
WG555911CCV2	CCV	12/01/22 19:43	WC221201-1	2.008		2.1	mg/L	105	90	110			
WG555911CCB2	CCB	12/01/22 19:51				U	mg/L		-0.3	0.3			
WG555911LFB2	LFB	12/01/22 20:21	WC221011-2	5.02		5.22	mg/L	104	90	110			
WG555911CCV3	CCV	12/01/22 20:48	WC221201-1	2.008		2.059	mg/L	103	90	110			
WG555911CCB3	CCB	12/01/22 20:56				U	mg/L		-0.3	0.3			
WG555911CCV4	CCV	12/01/22 21:54	WC221201-1	2.008		2.069	mg/L	103	90	110			
WG555911CCB4	CCB	12/01/22 22:02				U	mg/L		-0.3	0.3			
WG555911CCV5	CCV	12/01/22 23:08	WC221201-1	2.008		2.059	mg/L	103	90	110			
WG555911CCB5	CCB	12/01/22 23:16				U	mg/L		-0.3	0.3			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		2.033	mg/L	102	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.18	0.18			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.150195		.124	mg/L	83	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	200.410195		196.8	mg/L	98	1	200			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	1.0013		.984	mg/L	98	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	1.0013	U	.892	mg/L	89	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	1.0013	U	.988	mg/L	99	85	115	10	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		1.001	mg/L	100	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.18	0.18			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		1.003	mg/L	100	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.18	0.18			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		1.013	mg/L	101	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.18	0.18			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		1.899	mg/L	95	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.18	0.18			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.150195		.162	mg/L	108	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	200.410195		188.3	mg/L	94	1	200			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	1.0013		.939	mg/L	94	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		.956	mg/L	96	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.18	0.18			
L76621-05AS	AS	11/23/22 1:00	II221104-3	1.0013	U	.996	mg/L	99	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	1.0013	U	.956	mg/L	95	85	115	4	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		.943	mg/L	94	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.18	0.18			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.932	mg/L	93	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.18	0.18			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555029													
WG555029ICV	ICV	11/15/22 18:43	MS220930-3	.05		.05319	mg/L	106	90	110			
WG555029ICB	ICB	11/15/22 18:45				U	mg/L		-0.00022	0.00022			
WG555029LFB	LFB	11/15/22 18:47	MS221101-6	.0501		.05136	mg/L	103	85	115			
WG555029CCV1	CCV	11/15/22 19:06	MS221025-2	.2505		.25229	mg/L	101	90	110			
WG555029CCB1	CCB	11/15/22 19:08				U	mg/L		-0.0003	0.0003			
L77107-03AS	AS	11/15/22 19:25	MS221101-6	.1002	U	.11448	mg/L	114	70	130			
L77107-03ASD	ASD	11/15/22 19:27	MS221101-6	.1002	U	.1196	mg/L	119	70	130	4	20	
WG555029CCV2	CCV	11/15/22 19:28	MS221025-2	.2505		.25527	mg/L	102	90	110			
WG555029CCB2	CCB	11/15/22 19:30				.00028	mg/L		-0.0003	0.0003			
WG555029CCV3	CCV	11/15/22 19:42	MS221025-2	.2505		.2564	mg/L	102	90	110			
WG555029CCB3	CCB	11/15/22 19:44				U	mg/L		-0.0003	0.0003			
WG555232													
WG555232ICV	ICV	11/17/22 19:44	MS220930-3	.05		.05131	mg/L	103	90	110			
WG555232ICB	ICB	11/17/22 19:45				U	mg/L		-0.00022	0.00022			
WG555232LFB	LFB	11/17/22 19:47	MS221101-6	.0501		.04997	mg/L	100	85	115			
WG555232CCV1	CCV	11/17/22 20:06	MS221025-2	.2505		.25401	mg/L	101	90	110			
WG555232CCB1	CCB	11/17/22 20:08				U	mg/L		-0.0003	0.0003			
L77110-01AS	AS	11/17/22 20:25	MS221101-6	.1002	U	.10644	mg/L	106	70	130			
L77110-01ASD	ASD	11/17/22 20:27	MS221101-6	.1002	U	.10479	mg/L	105	70	130	2	20	
WG555232CCV2	CCV	11/17/22 20:28	MS221025-2	.2505		.26012	mg/L	104	90	110			
WG555232CCB2	CCB	11/17/22 20:30				U	mg/L		-0.0003	0.0003			
WG555232CCV3	CCV	11/17/22 20:41	MS221025-2	.2505		.25652	mg/L	102	90	110			
WG555232CCB3	CCB	11/17/22 20:43				U	mg/L		-0.0003	0.0003			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		1.939	mg/L	97	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.024	0.024			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.03992		.0424	mg/L	106	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	.0998		.1034	mg/L	104	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	.998		.9837	mg/L	99	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	.998	.147	1.211	mg/L	107	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	.998	.147	1.143	mg/L	100	85	115	6	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		.9823	mg/L	98	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.024	0.024			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		.9808	mg/L	98	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.024	0.024			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		.9837	mg/L	98	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.024	0.024			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		1.9918	mg/L	100	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.024	0.024			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.03992		.0429	mg/L	107	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	.0998		.1053	mg/L	106	80	120			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	.998		1.003	mg/L	101	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		.9835	mg/L	98	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.024	0.024			
L76621-05AS	AS	11/23/22 1:00	II221104-3	.998	.0157	1.044	mg/L	103	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	.998	.0157	.9902	mg/L	98	85	115	5	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		.9951	mg/L	100	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.024	0.024			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.9908	mg/L	99	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.024	0.024			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	100		95.93	mg/L	96	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.6	0.6			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	1.001		1.09	mg/L	109	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	201.201		197.4	mg/L	98	1	200			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	49.99676		48.24	mg/L	96	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	49.99676	33.9	80.21	mg/L	93	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	49.99676	33.9	80.3	mg/L	93	85	115	0	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	50		47.97	mg/L	96	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.6	0.6			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	50		48.28	mg/L	97	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.6	0.6			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	50		48.2	mg/L	96	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.6	0.6			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	100		97.42	mg/L	97	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.6	0.6			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	1.001		1.14	mg/L	114	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	201.201		201.8	mg/L	100	1	200			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	49.99676		48.42	mg/L	97	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	50		48.44	mg/L	97	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.6	0.6			
L76621-05AS	AS	11/23/22 1:00	II221104-3	49.99676	10.4	57.73	mg/L	95	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	49.99676	10.4	57.26	mg/L	94	85	115	1	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	50		48.26	mg/L	97	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.6	0.6			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	50		48.18	mg/L	96	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		1.937	mg/L	97	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.03	0.03			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.0498		.05	mg/L	100	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	49.9498		47.17	mg/L	94	1	200			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	.499		.5	mg/L	100	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	.499	.017	.48	mg/L	93	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	.499	.017	.517	mg/L	100	85	115	7	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		.979	mg/L	98	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.03	0.03			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		.985	mg/L	99	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.03	0.03			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		.983	mg/L	98	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.03	0.03			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		1.938	mg/L	97	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.03	0.03			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.0498		.052	mg/L	104	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	49.9498		47.23	mg/L	95	1	200			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	.499		.501	mg/L	100	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		.975	mg/L	98	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.03	0.03			
L76621-05AS	AS	11/23/22 1:00	II221104-3	.499	.319	.829	mg/L	102	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	.499	.319	.807	mg/L	98	85	115	3	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		.977	mg/L	98	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.03	0.03			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.981	mg/L	98	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.03	0.03			

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG554864													
WG554864ICV	ICV	11/14/22 16:01	HG221114-3	.005005		.00524	mg/L	105	95	105			
WG554864ICB	ICB	11/14/22 16:02				U	mg/L		-0.0002	0.0002			
WG554864PQV	PQV	11/14/22 16:03	HG221114-5	.001001		.00099	mg/L	99	70	130			
WG554864LRB	LRB	11/14/22 16:04				U	mg/L		-0.00044	0.00044			
WG554864LFB	LFB	11/14/22 16:05	HG221114-6	.002002		.00196	mg/L	98	85	115			
L76999-01LFM	LFM	11/14/22 16:08	HG221114-6	.002002	U	.00215	mg/L	107	85	115			
L76999-01LFMD	LFMD	11/14/22 16:09	HG221114-6	.002002	U	.00209	mg/L	104	85	115	3	20	
WG554864CCV1	CCV	11/14/22 16:12	HG221114-3	.005005		.00528	mg/L	105	90	110			
WG554864CCB1	CCB	11/14/22 16:13				U	mg/L		-0.0002	0.0002			
WG554864CCV2	CCV	11/14/22 16:24	HG221114-3	.005005		.00519	mg/L	104	90	110			
WG554864CCB2	CCB	11/14/22 16:25				U	mg/L		-0.0002	0.0002			
WG554864CCV3	CCV	11/14/22 16:32	HG221114-3	.005005		.00528	mg/L	105	90	110			
WG554864CCB3	CCB	11/14/22 16:33				U	mg/L		-0.0002	0.0002			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		1.9185	mg/L	96	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.024	0.024			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.04016		.0424	mg/L	106	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	.1004		.1003	mg/L	100	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	.502		.4913	mg/L	98	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	.502	.011	.4635	mg/L	90	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	.502	.011	.4912	mg/L	96	85	115	6	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		.9669	mg/L	97	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.024	0.024			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		.9768	mg/L	98	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.024	0.024			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		.9782	mg/L	98	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.024	0.024			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		1.9658	mg/L	98	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.024	0.024			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.04016		.0455	mg/L	113	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	.1004		.0992	mg/L	99	80	120			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	.502		.5023	mg/L	100	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		.9886	mg/L	99	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.024	0.024			
L76621-05AS	AS	11/23/22 1:00	II221104-3	.502	U	.531	mg/L	106	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	.502	U	.5067	mg/L	101	85	115	5	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		.9811	mg/L	98	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.024	0.024			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.9868	mg/L	99	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG554509													
WG554509ICV	ICV	11/08/22 23:15	WI220903-1	2.416		2.38	mg/L	99	90	110			
WG554509ICB	ICB	11/08/22 23:17				U	mg/L		-0.02	0.02			
WG554509LFB	LFB	11/08/22 23:20	WI220826-7	2		2.074	mg/L	104	90	110			
L77104-01AS	AS	11/08/22 23:23	WI220826-7	2	.37	2.457	mg/L	104	90	110			
L77105-01DUP	DUP	11/08/22 23:25			.103	.101	mg/L				2	20	RA
WG554509CCV1	CCV	11/08/22 23:30	WI221104-3	2		2.024	mg/L	101	90	110			
WG554509CCB1	CCB	11/08/22 23:34				U	mg/L		-0.02	0.02			
L77107-05AS	AS	11/08/22 23:42	WI220826-7	2	U	2.05	mg/L	103	90	110			
L77107-06DUP	DUP	11/08/22 23:45			U	U	mg/L				0	20	RA
WG554509CCV2	CCV	11/08/22 23:47	WI221104-3	2		2.018	mg/L	101	90	110			
WG554509CCB2	CCB	11/08/22 23:51				U	mg/L		-0.02	0.02			
WG554509CCV3	CCV	11/09/22 0:05	WI221104-3	2		2.013	mg/L	101	90	110			
WG554509CCB3	CCB	11/09/22 0:08				U	mg/L		-0.02	0.02			
WG554509CCV4	CCV	11/09/22 0:18	WI221104-3	2		2.012	mg/L	101	90	110			
WG554509CCB4	CCB	11/09/22 0:21				U	mg/L		-0.02	0.02			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG554509													
WG554509ICV	ICV	11/08/22 23:15	WI220903-1	.608		.589	mg/L	97	90	110			
WG554509ICB	ICB	11/08/22 23:17				U	mg/L		-0.01	0.01			
WG554509LFB	LFB	11/08/22 23:20	WI220826-7	1		1.04	mg/L	104	90	110			
L77104-01AS	AS	11/08/22 23:23	WI220826-7	1	.02	1.066	mg/L	105	90	110			
L77105-01DUP	DUP	11/08/22 23:25			U	U	mg/L				0	20	RA
WG554509CCV1	CCV	11/08/22 23:30	WI221104-3	1		.994	mg/L	99	90	110			
WG554509CCB1	CCB	11/08/22 23:34				U	mg/L		-0.01	0.01			
L77107-05AS	AS	11/08/22 23:42	WI220826-7	1	U	1.037	mg/L	104	90	110			
L77107-06DUP	DUP	11/08/22 23:45			U	U	mg/L				0	20	RA
WG554509CCV2	CCV	11/08/22 23:47	WI221104-3	1		1.006	mg/L	101	90	110			
WG554509CCB2	CCB	11/08/22 23:51				U	mg/L		-0.01	0.01			
WG554509CCV3	CCV	11/09/22 0:05	WI221104-3	1		1.006	mg/L	101	90	110			
WG554509CCB3	CCB	11/09/22 0:08				U	mg/L		-0.01	0.01			
WG554509CCV4	CCV	11/09/22 0:18	WI221104-3	1		1.002	mg/L	100	90	110			
WG554509CCB4	CCB	11/09/22 0:21				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	20		19.06	mg/L	95	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.6	0.6			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	1.005		1.09	mg/L	108	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	1.005		.95	mg/L	95	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	99.95798		95.87	mg/L	96	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	99.95798	3.65	97.77	mg/L	94	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	99.95798	3.65	100.2	mg/L	97	85	115	2	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	10		9.66	mg/L	97	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.6	0.6			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	10		9.67	mg/L	97	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.6	0.6			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	10		9.68	mg/L	97	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.6	0.6			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	20		19.37	mg/L	97	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.6	0.6			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	1.005		1.22	mg/L	121	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	1.005		1	mg/L	100	80	120			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	99.95798		96.78	mg/L	97	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	10		9.77	mg/L	98	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.6	0.6			
L76621-05AS	AS	11/23/22 1:00	II221104-3	99.95798	9.08	105.5	mg/L	96	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	99.95798	9.08	104.2	mg/L	95	85	115	1	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	10		9.63	mg/L	96	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.6	0.6			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	10		9.77	mg/L	98	90	110			
WG555438CCB3	CCB	11/23/22 1:30				.2	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG554698													
WG554698PBW	PBW	11/10/22 12:42				U	mg/L		-20	20			
WG554698LCSW	LCSW	11/10/22 12:44	PCN623306	1000		978	mg/L	98	80	120			
L77107-04DUP	DUP	11/10/22 13:13			3840	3880	mg/L				1	10	
L77110-06DUP	DUP	11/10/22 13:42			4500	4412	mg/L				2	10	
WG554896													
WG554896PBW	PBW	11/14/22 13:04				U	mg/L		-20	20			
WG554896LCSW	LCSW	11/14/22 13:06	PCN623306	1000		974	mg/L	97	80	120			
L77179-01DUP	DUP	11/14/22 13:27			346	330	mg/L				5	10	

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555029													
WG555029ICV	ICV	11/15/22 18:43	MS220930-3	.05		.05212	mg/L	104	90	110			
WG555029ICB	ICB	11/15/22 18:45				U	mg/L		-0.00022	0.00022			
WG555029LFB	LFB	11/15/22 18:47	MS221101-6	.05005		.05134	mg/L	103	85	115			
WG555029CCV1	CCV	11/15/22 19:06	MS221025-2	.1001		.10014	mg/L	100	90	110			
WG555029CCB1	CCB	11/15/22 19:08				U	mg/L		-0.0003	0.0003			
L77107-03AS	AS	11/15/22 19:25	MS221101-6	.1001		.09765	mg/L	98	70	130			
L77107-03ASD	ASD	11/15/22 19:27	MS221101-6	.1001		.10283	mg/L	103	70	130	5	20	
WG555029CCV2	CCV	11/15/22 19:28	MS221025-2	.1001		.10343	mg/L	103	90	110			
WG555029CCB2	CCB	11/15/22 19:30				.00023	mg/L		-0.0003	0.0003			
WG555029CCV3	CCV	11/15/22 19:42	MS221025-2	.1001		.10773	mg/L	108	90	110			
WG555029CCB3	CCB	11/15/22 19:44				.00457	mg/L		-0.0003	0.0003			BB BE
WG555232													
WG555232ICV	ICV	11/17/22 19:44	MS220930-3	.05		.05246	mg/L	105	90	110			
WG555232ICB	ICB	11/17/22 19:45				U	mg/L		-0.00022	0.00022			
WG555232LFB	LFB	11/17/22 19:47	MS221101-6	.05005		.05144	mg/L	103	85	115			
WG555232CCV1	CCV	11/17/22 20:06	MS221025-2	.1001		.10103	mg/L	101	90	110			
WG555232CCB1	CCB	11/17/22 20:08				U	mg/L		-0.0003	0.0003			
L77110-01AS	AS	11/17/22 20:25	MS221101-6	.1001	.004	.10878	mg/L	105	70	130			
L77110-01ASD	ASD	11/17/22 20:27	MS221101-6	.1001	.004	.10815	mg/L	104	70	130	1	20	
WG555232CCV2	CCV	11/17/22 20:28	MS221025-2	.1001		.10509	mg/L	105	90	110			
WG555232CCB2	CCB	11/17/22 20:30				U	mg/L		-0.0003	0.0003			
WG555232CCV3	CCV	11/17/22 20:41	MS221025-2	.1001		.1022	mg/L	102	90	110			
WG555232CCB3	CCB	11/17/22 20:43				U	mg/L		-0.0003	0.0003			
WG555421													
WG555421ICV	ICV	11/22/22 11:45	MS220930-3	.05		.05061	mg/L	101	90	110			
WG555421ICB	ICB	11/22/22 11:47				U	mg/L		-0.00022	0.00022			
WG555421LFB	LFB	11/22/22 11:49	MS221101-6	.05005		.04956	mg/L	99	85	115			
WG555421CCV1	CCV	11/22/22 12:03	MS221025-2	.1001		.10016	mg/L	100	90	110			
WG555421CCB1	CCB	11/22/22 12:05				U	mg/L		-0.0003	0.0003			
WG555421CCV2	CCV	11/22/22 12:25	MS221025-2	.1001		.09909	mg/L	99	90	110			
WG555421CCB2	CCB	11/22/22 12:27				U	mg/L		-0.0003	0.0003			
L77132-04AS	AS	11/22/22 12:29	MS221101-6	.05005	U	.05352	mg/L	107	70	130			
L77132-04ASD	ASD	11/22/22 12:30	MS221101-6	.05005	U	.053	mg/L	106	70	130	1	20	
WG555421CCV3	CCV	11/22/22 12:41	MS221025-2	.1001		.09873	mg/L	99	90	110			
WG555421CCB3	CCB	11/22/22 12:43				U	mg/L		-0.0003	0.0003			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	100		96	mg/L	96	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.6	0.6			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	1.002		1.01	mg/L	101	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	1.002		1.02	mg/L	102	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	100.0023		95.12	mg/L	95	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	100.0023	412	503.9	mg/L	92	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	100.0023	412	499.2	mg/L	87	85	115	1	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	50		48.53	mg/L	97	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.6	0.6			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	50		48.71	mg/L	97	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.6	0.6			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	50		48.59	mg/L	97	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.6	0.6			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	100		97.93	mg/L	98	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.6	0.6			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	1.002		1.11	mg/L	111	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	1.002		1.08	mg/L	108	80	120			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	100.0023		96.74	mg/L	97	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	50		48.7	mg/L	97	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.6	0.6			
L76621-05AS	AS	11/23/22 1:00	II221104-3	100.0023	26.9	120.9	mg/L	94	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	100.0023	26.9	120.9	mg/L	94	85	115	0	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	50		48.78	mg/L	98	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.6	0.6			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	50		48.74	mg/L	97	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.6	0.6			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555297													
WG555297ICB	ICB	11/18/22 9:37				U	mg/L		-3	3			
WG555297ICV	ICV	11/18/22 9:37	WI221116-8	20		19.4	mg/L	97	90	110			
WG555297CCV1	CCV	11/18/22 15:53	WI221116-9	24.425		24.9	mg/L	102	90	110			
WG555297CCB1	CCB	11/18/22 15:53				U	mg/L		-3	3			
WG555297LFB	LFB	11/18/22 15:53	WI220830-3	10		9.3	mg/L	93	90	110			
WG555297CCV2	CCV	11/18/22 15:55	WI221116-9	24.425		24.8	mg/L	102	90	110			
WG555297CCB2	CCB	11/18/22 15:55				U	mg/L		-3	3			
WG555297CCV3	CCV	11/18/22 16:49	WI221116-9	24.425		24.8	mg/L	102	90	110			
WG555297CCB3	CCB	11/18/22 16:49				1	mg/L		-3	3			
WG555297CCV4	CCV	11/18/22 16:51	WI221116-9	24.425		24.7	mg/L	101	90	110			
WG555297CCB4	CCB	11/18/22 16:51				U	mg/L		-3	3			
WG555297CCV5	CCV	11/18/22 17:13	WI221116-9	24.425		24.7	mg/L	101	90	110			
WG555297CCB5	CCB	11/18/22 17:13				U	mg/L		-3	3			
L77007-01DUP	DUP	11/18/22 17:13			787	782.1	mg/L				1	20	
WG555297CCV6	CCV	11/18/22 17:15	WI221116-9	24.425		24.7	mg/L	101	90	110			
WG555297CCB6	CCB	11/18/22 17:15				U	mg/L		-3	3			
WG555297CCV7	CCV	11/18/22 17:18	WI221116-9	24.425		24.6	mg/L	101	90	110			
WG555297CCB7	CCB	11/18/22 17:18				U	mg/L		-3	3			
WG555297CCV8	CCV	11/18/22 17:21	WI221116-9	24.425		24.7	mg/L	101	90	110			
WG555297CCB8	CCB	11/18/22 17:21				U	mg/L		-3	3			
L77107-01AS	AS	11/18/22 17:26	SO4TURB	10.0000008	3180	3324.6	mg/L	1446	90	110			M3
WG555297CCV9	CCV	11/18/22 17:26	WI221116-9	24.425		24.4	mg/L	100	90	110			
WG555297CCB9	CCB	11/18/22 17:26				U	mg/L		-3	3			
WG555297CCV10	CCV	11/18/22 17:28	WI221116-9	24.425		24.5	mg/L	100	90	110			
WG555297CCB10	CCB	11/18/22 17:28				U	mg/L		-3	3			
WG555297CCV11	CCV	11/18/22 17:33	WI221116-9	24.425		24.6	mg/L	101	90	110			
WG555297CCB11	CCB	11/18/22 17:33				U	mg/L		-3	3			
WG555297CCV12	CCV	11/18/22 18:03	WI221116-9	24.425		24.6	mg/L	101	90	110			
WG555297CCB12	CCB	11/18/22 18:03				U	mg/L		-3	3			
WG555297CCV13	CCV	11/18/22 18:10	WI221116-9	24.425		24.7	mg/L	101	90	110			
WG555297CCB13	CCB	11/18/22 18:10				U	mg/L		-3	3			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		2.001	mg/L	100	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.015	0.015			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.025025		.024	mg/L	96	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	.1001		.101	mg/L	101	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	.5005		.4995	mg/L	100	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	.5005	U	.4965	mg/L	99	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	.5005	U	.505	mg/L	101	85	115	2	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		1.005	mg/L	101	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.03	0.03			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		1.013	mg/L	101	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.03	0.03			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		1.015	mg/L	102	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.03	0.03			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		2.007	mg/L	100	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.015	0.015			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.025025		.023	mg/L	92	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	.1001		.096	mg/L	96	80	120			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	.5005		.5001	mg/L	100	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		1.001	mg/L	100	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.03	0.03			
L76621-05AS	AS	11/23/22 1:00	II221104-3	.5005	U	.498	mg/L	100	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	.5005	U	.492	mg/L	98	85	115	1	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		.997	mg/L	100	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.03	0.03			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.999	mg/L	100	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L77107***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555198													
WG555198ICV	ICV	11/18/22 21:42	II221116-1	2		1.942	mg/L	97	95	105			
WG555198ICB	ICB	11/18/22 21:47				U	mg/L		-0.06	0.06			
WG555198PQV	PQV	11/18/22 21:51	II221109-2	.0501		.046	mg/L	92	70	130			
WG555198SIC	SIC	11/18/22 21:54	II221102-3	.1002		.098	mg/L	98	80	120			
WG555198LFB	LFB	11/18/22 22:00	II221104-3	.50045		.504	mg/L	101	85	115			
L77107-07AS	AS	11/18/22 22:24	II221104-3	.50045	U	.483	mg/L	97	85	115			
L77107-07ASD	ASD	11/18/22 22:27	II221104-3	.50045	U	.493	mg/L	99	85	115	2	20	
WG555198CCV1	CCV	11/18/22 22:30	II221110-1	1		.971	mg/L	97	90	110			
WG555198CCB1	CCB	11/18/22 22:33				U	mg/L		-0.06	0.06			
WG555198CCV2	CCV	11/18/22 23:07	II221110-1	1		.983	mg/L	98	90	110			
WG555198CCB2	CCB	11/18/22 23:10				U	mg/L		-0.06	0.06			
WG555198CCV3	CCV	11/18/22 23:28	II221110-1	1		.984	mg/L	98	90	110			
WG555198CCB3	CCB	11/18/22 23:31				U	mg/L		-0.06	0.06			
WG555438													
WG555438ICV	ICV	11/22/22 23:42	II221116-1	2		1.893	mg/L	95	95	105			
WG555438ICB	ICB	11/22/22 23:47				U	mg/L		-0.06	0.06			
WG555438PQV	PQV	11/22/22 23:50	II221109-2	.0501		.06	mg/L	120	70	130			
WG555438SIC	SIC	11/22/22 23:53	II221102-3	.1002		.113	mg/L	113	80	120			
WG555438LFB	LFB	11/23/22 0:00	II221104-3	.50045		.489	mg/L	98	85	115			
WG555438CCV1	CCV	11/23/22 0:30	II221110-1	1		.954	mg/L	95	90	110			
WG555438CCB1	CCB	11/23/22 0:33				U	mg/L		-0.06	0.06			
L76621-05AS	AS	11/23/22 1:00	II221104-3	.50045	U	.486	mg/L	97	85	115			
L76621-05ASD	ASD	11/23/22 1:03	II221104-3	.50045	U	.483	mg/L	97	85	115	1	20	
WG555438CCV2	CCV	11/23/22 1:06	II221110-1	1		.93	mg/L	93	90	110			
WG555438CCB2	CCB	11/23/22 1:09				U	mg/L		-0.06	0.06			
WG555438CCV3	CCV	11/23/22 1:27	II221110-1	1		.927	mg/L	93	90	110			
WG555438CCB3	CCB	11/23/22 1:30				U	mg/L		-0.06	0.06			

GCC Rio Grande ACZ Project ID: ***L77107***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L77107-01	WG555373	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG555050	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG555198	Copper, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG555874	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	Q6	Sample was received above recommended temperature.
	WG555373	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG554509	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554698	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG555297	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG555373	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
L77107-02	WG555373	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG555050	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG555198	Copper, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG555874	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	Q6	Sample was received above recommended temperature.
	WG555373	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG554509	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554698	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG555297	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG555373	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

GCC Rio Grande ACZ Project ID: ***L77107***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L77107-03	WG555373	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG555050	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG555198	Copper, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG555874	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	Q6	Sample was received above recommended temperature.
	WG555373	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG554509	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554698	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG555232	Selenium, dissolved	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
	WG555297	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG555373	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
L77107-04	WG555373	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG555050	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG555198	Copper, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG555874	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	Q6	Sample was received above recommended temperature.
	WG555373	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG554509	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554698	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG555232	Selenium, dissolved	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
	WG555297	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG555373	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

GCC Rio Grande ACZ Project ID: ***L77107***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L77107-05	WG555373	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG555050	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG555198	Copper, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG555874	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	Q6	Sample was received above recommended temperature.
	WG555373	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG554509	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554896	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG555029	Selenium, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG555297	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG555373	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
L77107-06	WG555373	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG555050	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG555198	Copper, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG555911	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG555373	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG554509	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554698	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG555029	Selenium, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG555297	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG555373	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L77107-07	WG555373	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG555050	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG555198	Copper, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG555911	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG555373	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG554509	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554698	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG555029	Selenium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
	WG555297	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG555373	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
L77107-08	WG555373	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG555050	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG555911	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG555373	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG554509	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554698	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG555421	Selenium, dissolved	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
			M200.8 ICP-MS	EA	Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences.
	WG555297	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG555373	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L77107***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L77107
Date Received: 11/08/2022 09:54
Received By:
Date Printed: 11/9/2022

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
7070	9.9	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L77107
Date Received: 11/08/2022 09:54
Received By:
Date Printed: 11/9/2022

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ LABORATORIES | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L77107

CHAIN of CUSTODY

Report to:

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

Copy of Report to:

Name: Landon Beck
Company: Resource Hydrogeologic
E-mail: lbeck@resourcehydrogeologic.com
Telephone: (970) 459-4865

Invoice to:

Name: Amy Veek
Company: GCC Rio Grande Inc
E-mail: aveek@gcc.com
Address: 3372 Lime Road, Pueblo CO 81004
Telephone: 719-647-6861

Copy of Invoice to:

Name:
Company:
E-mail:
Address:
Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ✓ NO

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes No ✓

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Amy Veek **Sampler's Site Information** **State** CO **Zip code** 81004 **Time Zone** MDT

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE
PO#: 105495
Reporting state for compliance testing:
Check box if samples include NRC licensed material?

ANALYSES REQUESTED (attach list or use quote number)

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	GW-COmpliance
MW-6	11/7/2022 10:42	GW	3	✓
MW-7	11/7/2022 13:44	GW	3	✓
MW-2B	11/7/2022 12:00	GW	3	✓
MW-8	11/7/2022 13:19	GW	3	✓
MW-9	11/7/2022 15:25	GW	3	✓
MW-10	11/7/2022 15:08	GW	3	✓
MW-11	11/7/2022 14:27	GW	3	✓
MW-12	11/7/2022 14:09	GW	3	✓

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	11/7/22 16:00	[signature]	11/8/22 9:54

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L77107 Chain of Custod

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 02, 2022

Report to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

cc: Landon Beck

Bill to:
Amy Veek
GCC Rio Grande
3372 Lime Road
Pueblo, CO 81004

Project ID: 105495
ACZ Project ID: L77134

Amy Veek:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 09, 2022. This project has been assigned to ACZ's project number, L77134. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L77134. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after December 02, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber has reviewed and approved this report.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

GCC Rio Grande
Project ID: 105495
Sample ID: MW-14

ACZ Sample ID: ***L77134-01***
Date Sampled: *11/08/22 10:09*
Date Received: *11/09/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	5	<0.25	U		mg/L	0.25	1.25	11/17/22 18:09	wtc
Arsenic, dissolved	M200.8 ICP-MS	10	0.00448	B		mg/L	0.002	0.01	11/16/22 16:20	gjl/scp
Beryllium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	11/17/22 18:09	wtc
Boron, dissolved	M200.7 ICP	5	1.24			mg/L	0.15	0.5	11/17/22 18:09	wtc
Cadmium, dissolved	M200.8 ICP-MS	10	<0.0005	U		mg/L	0.0005	0.0025	11/16/22 16:20	gjl/scp
Calcium, dissolved	M200.7 ICP	5	18.0			mg/L	0.5	2.5	11/17/22 18:09	wtc
Chromium, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/17/22 18:09	wtc
Cobalt, dissolved	M200.8 ICP-MS	10	0.000864	B		mg/L	0.0005	0.0025	11/16/22 16:20	gjl/scp
Copper, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	11/17/22 18:09	wtc
Iron, dissolved	M200.7 ICP	5	0.356	B		mg/L	0.3	0.75	11/17/22 18:09	wtc
Lead, dissolved	M200.8 ICP-MS	10	<0.001	U		mg/L	0.001	0.005	11/22/22 12:34	kja
Lithium, dissolved	M200.7 ICP	5	0.358			mg/L	0.04	0.2	11/17/22 18:09	wtc
Magnesium, dissolved	M200.7 ICP	5	4.99	B		mg/L	1	5	11/17/22 18:09	wtc
Manganese, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.25	11/17/22 18:09	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:28	mlh
Nickel, dissolved	M200.7 ICP	5	<0.04	U		mg/L	0.04	0.2	11/17/22 18:09	wtc
Potassium, dissolved	M200.7 ICP	5	5.67			mg/L	1	5	11/17/22 18:09	wtc
Selenium, dissolved	M200.8 ICP-MS	10	<0.001	U	*	mg/L	0.001	0.0025	11/22/22 12:34	kja
Sodium, dissolved	M200.7 ICP	5	1610			mg/L	1	5	11/17/22 18:09	wtc
Vanadium, dissolved	M200.7 ICP	5	<0.05	U		mg/L	0.05	0.125	11/17/22 18:09	wtc
Zinc, dissolved	M200.7 ICP	5	<0.1	U		mg/L	0.1	0.25	11/17/22 18:09	wtc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-14

ACZ Sample ID: ***L77134-01***
Date Sampled: *11/08/22 10:09*
Date Received: *11/09/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1320			mg/L	2	20	11/22/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	11/22/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	11/22/22 0:00	jck
Total Alkalinity		1	1320			mg/L	2	20	11/22/22 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-5.9			%			12/02/22 0:00	calc
Sum of Anions			81			meq/L			12/02/22 0:00	calc
Sum of Cations			72			meq/L			12/02/22 0:00	calc
Chloride	SM4500Cl-E	25	1660			mg/L	25	50	11/16/22 11:54	bls
Fluoride	SM4500F-C	1	2.87		*	mg/L	0.15	0.35	12/01/22 13:30	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		66			mg/L	1	30	12/02/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	U		mg/L	0.02	0.1	12/02/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	U	*	mg/L	0.02	0.1	11/10/22 0:18	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	11/10/22 0:18	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	4410		*	mg/L	100	200	11/11/22 13:53	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	50	393		*	mg/L	50	250	11/16/22 14:12	gkk
TDS (calculated)	Calculation		4500			mg/L			12/02/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		0.98						12/02/22 0:00	calc

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

GCC Rio Grande
Project ID: 105495
Sample ID: MW-13

ACZ Sample ID: ***L77134-02***
Date Sampled: *11/08/22 10:57*
Date Received: *11/09/22*
Sample Matrix: *Groundwater*

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	11/17/22 18:12	wtc
Arsenic, dissolved	M200.8 ICP-MS	5	0.00102	B		mg/L	0.001	0.005	11/16/22 16:23	gjl/scp
Beryllium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	11/17/22 18:12	wtc
Boron, dissolved	M200.7 ICP	2	1.03			mg/L	0.06	0.2	11/17/22 18:12	wtc
Cadmium, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	11/16/22 16:23	gjl/scp
Calcium, dissolved	M200.7 ICP	2	6.65			mg/L	0.2	1	11/17/22 18:12	wtc
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	11/17/22 18:12	wtc
Cobalt, dissolved	M200.8 ICP-MS	5	<0.00025	U		mg/L	0.00025	0.00125	11/16/22 16:23	gjl/scp
Copper, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	11/17/22 18:12	wtc
Iron, dissolved	M200.7 ICP	2	<0.12	U		mg/L	0.12	0.3	11/17/22 18:12	wtc
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	11/22/22 12:36	kja
Lithium, dissolved	M200.7 ICP	2	0.227			mg/L	0.016	0.08	11/17/22 18:12	wtc
Magnesium, dissolved	M200.7 ICP	2	1.67	B		mg/L	0.4	2	11/17/22 18:12	wtc
Manganese, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	11/17/22 18:12	wtc
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	11/14/22 16:29	mlh
Nickel, dissolved	M200.7 ICP	2	<0.016	U		mg/L	0.016	0.08	11/17/22 18:12	wtc
Potassium, dissolved	M200.7 ICP	2	3.14			mg/L	0.4	2	11/17/22 18:12	wtc
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.0005	11/22/22 12:36	kja
Sodium, dissolved	M200.7 ICP	2	977			mg/L	0.4	2	11/17/22 18:12	wtc
Vanadium, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.05	11/17/22 18:12	wtc
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	11/17/22 18:12	wtc

GCC Rio Grande
Project ID: 105495
Sample ID: MW-13

ACZ Sample ID: ***L77134-02***
Date Sampled: *11/08/22 10:57*
Date Received: *11/09/22*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	1230			mg/L	2	20	11/22/22 0:00	jck
Carbonate as CaCO3		1	52.5			mg/L	2	20	11/22/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	11/22/22 0:00	jck
Total Alkalinity		1	1280			mg/L	2	20	11/22/22 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-3.3			%			12/02/22 0:00	calc
Sum of Anions			47			meq/L			12/02/22 0:00	calc
Sum of Cations			44			meq/L			12/02/22 0:00	calc
Chloride	SM4500Cl-E	25	643			mg/L	25	50	11/16/22 11:54	bls
Fluoride	SM4500F-C	1	6.51		*	mg/L	0.15	0.35	12/01/22 13:34	emk
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		24			mg/L	0.5	10	12/02/22 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.040	B		mg/L	0.02	0.1	12/02/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.064	B	*	mg/L	0.02	0.1	11/10/22 0:20	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.024	B	*	mg/L	0.01	0.05	11/10/22 0:20	pjb
Residue, Filterable (TDS) @180C	SM2540C	2	2540		*	mg/L	40	80	11/11/22 13:56	svm
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	122		*	mg/L	5	25	11/16/22 13:43	gkk
TDS (calculated)	Calculation		2540			mg/L			12/02/22 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.00						12/02/22 0:00	calc

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555395													
WG555395PBW1	PBW	11/21/22 20:46				3.4	mg/L		-20	20			
WG555395LCSW3	LCSW	11/21/22 21:07	WC221109-1	820		774.4	mg/L	94	90	110			
WG555395LCSW6	LCSW	11/21/22 23:32	WC221109-1	820		772.2	mg/L	94	90	110			
WG555395PBW2	PBW	11/21/22 23:40				4.6	mg/L		-20	20			
WG555395LCSW9	LCSW	11/22/22 2:20	WC221109-1	820		779.8	mg/L	95	90	110			
WG555395PBW3	PBW	11/22/22 2:28				5.6	mg/L		-20	20			
WG555395LCSW12	LCSW	11/22/22 5:06	WC221109-1	820		779.2	mg/L	95	90	110			
WG555395PBW4	PBW	11/22/22 5:14				5.7	mg/L		-20	20			
L77157-04DUP	DUP	11/22/22 7:28			526	513.7	mg/L				2	20	
WG555395LCSW15	LCSW	11/22/22 9:21	WC221109-1	820		784.8	mg/L	96	90	110			
WG555395PBW5	PBW	11/22/22 9:29				5.8	mg/L		-20	20			
WG555395LCSW18	LCSW	11/22/22 11:10	WC221109-1	820		777.5	mg/L	95	90	110			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		1.988	mg/L	99	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.15	0.15			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.2502		.241	mg/L	96	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	200.4102		209	mg/L	104	1	200			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	1.0008		.966	mg/L	97	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	1.0008	U	.98	mg/L	98	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	1.0008	U	1.012	mg/L	101	85	115	3	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		.987	mg/L	99	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.15	0.15			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		.984	mg/L	98	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.15	0.15			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.998	mg/L	100	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.15	0.15			

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555075													
WG555075ICV	ICV	11/16/22 15:15	MS220930-3	.05		.05011	mg/L	100	90	110			
WG555075ICB	ICB	11/16/22 15:17				U	mg/L		-0.00044	0.00044			
WG555075LFB	LFB	11/16/22 15:19	MS221101-6	.05005		.05021	mg/L	100	85	115			
WG555075CCV1	CCV	11/16/22 15:43	MS221025-2	.1001		.10228	mg/L	102	90	110			
WG555075CCB1	CCB	11/16/22 15:45				.00024	mg/L		-0.0006	0.0006			
L77132-03AS	AS	11/16/22 16:06	MS221101-6	.05005	.0019	.04774	mg/L	92	70	130			
L77132-03ASD	ASD	11/16/22 16:09	MS221101-6	.05005	.0019	.05397	mg/L	104	70	130	12	20	
WG555075CCV2	CCV	11/16/22 16:11	MS221025-2	.1001		.10036	mg/L	100	90	110			
WG555075CCB2	CCB	11/16/22 16:13				.00026	mg/L		-0.0006	0.0006			
WG555075CCV3	CCV	11/16/22 16:27	MS221025-2	.1001		.10672	mg/L	107	90	110			
WG555075CCB3	CCB	11/16/22 16:30				.00024	mg/L		-0.0006	0.0006			

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beryllium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		1.989	mg/L	99	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.03	0.03			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.0501		.05	mg/L	100	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	.1002		.1	mg/L	100	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	.5005		.493	mg/L	99	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	.5005	U	.494	mg/L	99	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	.5005	U	.511	mg/L	102	85	115	3	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		1	mg/L	100	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.03	0.03			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		.987	mg/L	99	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.03	0.03			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.983	mg/L	98	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.03	0.03			

Boron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		2.015	mg/L	101	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.09	0.09			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.1001		.092	mg/L	92	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	.1001		.092	mg/L	92	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	.5005		.498	mg/L	100	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	.5005	U	.51	mg/L	102	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	.5005	U	.539	mg/L	108	85	115	6	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		1.009	mg/L	101	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.09	0.09			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		1.008	mg/L	101	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.09	0.09			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.997	mg/L	100	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.09	0.09			

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555075													
WG555075ICV	ICV	11/16/22 15:15	MS220930-3	.05		.050119	mg/L	100	90	110			
WG555075ICB	ICB	11/16/22 15:17				U	mg/L		-0.00011	0.00011			
WG555075LFB	LFB	11/16/22 15:19	MS221101-6	.05005		.048068	mg/L	96	85	115			
WG555075CCV1	CCV	11/16/22 15:43	MS221025-2	.1001		.101216	mg/L	101	90	110			
WG555075CCB1	CCB	11/16/22 15:45				U	mg/L		-0.00015	0.00015			
L77132-03AS	AS	11/16/22 16:06	MS221101-6	.05005	U	.04441	mg/L	89	70	130			
L77132-03ASD	ASD	11/16/22 16:09	MS221101-6	.05005	U	.050574	mg/L	101	70	130	13	20	
WG555075CCV2	CCV	11/16/22 16:11	MS221025-2	.1001		.09968	mg/L	100	90	110			
WG555075CCB2	CCB	11/16/22 16:13				U	mg/L		-0.00015	0.00015			
WG555075CCV3	CCV	11/16/22 16:27	MS221025-2	.1001		.109794	mg/L	110	90	110			
WG555075CCB3	CCB	11/16/22 16:30				U	mg/L		-0.00015	0.00015			

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	100		99.24	mg/L	99	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.3	0.3			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.50055		.48	mg/L	96	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	200.72055		199.3	mg/L	99	1	200			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	67.99353		67.27	mg/L	99	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	67.99353	24.6	90.76	mg/L	97	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	67.99353	24.6	94.67	mg/L	103	85	115	4	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	50		49.78	mg/L	100	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.3	0.3			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	50		49.45	mg/L	99	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.3	0.3			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	50		49.27	mg/L	99	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.3	0.3			

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555050													
WG555050ICV	ICV	11/16/22 10:27	WI220502-12	54.945		54.62	mg/L	99	90	110			
WG555050ICB	ICB	11/16/22 10:27				U	mg/L		-3	3			
WG555050LFB1	LFB	11/16/22 10:28	WI221025-9	30.03		28.32	mg/L	94	90	110			
WG555050CCV1	CCV	11/16/22 10:33	WI221021-5	49.95		50.3	mg/L	101	90	110			
WG555050CCB1	CCB	11/16/22 10:33				U	mg/L		-3	3			
WG555050LFB2	LFB	11/16/22 10:43	WI221025-9	30.03		30.21	mg/L	101	90	110			
WG555050CCV3	CCV	11/16/22 10:45	WI221021-5	49.95		53.3	mg/L	107	90	110			
WG555050CCB3	CCB	11/16/22 10:45				U	mg/L		-3	3			
L77138-01AS	AS	11/16/22 10:46	WI221025-9	30.03	63.6	95.56	mg/L	106	90	110			
L77139-01DUP	DUP	11/16/22 10:47			53.5	54.97	mg/L				3	20	
WG555050CCV4	CCV	11/16/22 10:50	WI221021-5	49.95		50.93	mg/L	102	90	110			
WG555050CCB4	CCB	11/16/22 10:50				U	mg/L		-3	3			
WG555050CCV10	CCV	11/16/22 11:45	WI221021-5	49.95		49.56	mg/L	99	90	110			
WG555050CCB10	CCB	11/16/22 11:45				U	mg/L		-3	3			
WG555050CCV2	CCV	11/16/22 11:50	WI221021-5	49.95		49.66	mg/L	99	90	110			
WG555050CCB2	CCB	11/16/22 11:50				U	mg/L		-3	3			
WG555050CCV11	CCV	11/16/22 11:55	WI221021-5	49.95		50.57	mg/L	101	90	110			
WG555050CCB11	CCB	11/16/22 11:55				U	mg/L		-3	3			
WG555050CCV12	CCV	11/16/22 12:13	WI221021-5	49.95		51.02	mg/L	102	90	110			
WG555050CCB12	CCB	11/16/22 12:14				U	mg/L		-3	3			
WG555050CCV13	CCV	11/16/22 12:15	WI221021-5	49.95		50.2	mg/L	101	90	110			
WG555050CCB13	CCB	11/16/22 12:15				U	mg/L		-3	3			

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		1.96	mg/L	98	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.06	0.06			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.0501		.046	mg/L	92	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	.1002		.095	mg/L	95	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	.501		.49	mg/L	98	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	.501	U	.487	mg/L	97	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	.501	U	.517	mg/L	103	85	115	6	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		.991	mg/L	99	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.06	0.06			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		.976	mg/L	98	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.06	0.06			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.984	mg/L	98	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.06	0.06			

Cobalt, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555075													
WG555075ICV	ICV	11/16/22 15:15	MS220930-3	.05		.052472	mg/L	105	90	110			
WG555075ICB	ICB	11/16/22 15:17				U	mg/L		-0.00011	0.00011			
WG555075LFB	LFB	11/16/22 15:19	MS221101-6	.05005		.050527	mg/L	101	85	115			
WG555075CCV1	CCV	11/16/22 15:43	MS221025-2	.1001		.097864	mg/L	98	90	110			
WG555075CCB1	CCB	11/16/22 15:45				U	mg/L		-0.00015	0.00015			
L77132-03AS	AS	11/16/22 16:06	MS221101-6	.05005	.000131	.041131	mg/L	82	70	130			
L77132-03ASD	ASD	11/16/22 16:09	MS221101-6	.05005	.000131	.046655	mg/L	93	70	130	13	20	
WG555075CCV2	CCV	11/16/22 16:11	MS221025-2	.1001		.095529	mg/L	95	90	110			
WG555075CCB2	CCB	11/16/22 16:13				U	mg/L		-0.00015	0.00015			
WG555075CCV3	CCV	11/16/22 16:27	MS221025-2	.1001		.103732	mg/L	104	90	110			
WG555075CCB3	CCB	11/16/22 16:30				U	mg/L		-0.00015	0.00015			

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		1.963	mg/L	98	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.03	0.03			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.05005		.043	mg/L	86	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	.1001		.08	mg/L	80	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	.5005		.485	mg/L	97	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	.5005	U	.488	mg/L	98	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	.5005	U	.506	mg/L	101	85	115	4	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		.958	mg/L	96	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.03	0.03			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		.972	mg/L	97	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.03	0.03			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.97	mg/L	97	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555874													
WG555874ICV	ICV	12/01/22 12:33	WC221118-10	2.008		1.94	mg/L	97	90	110			
WG555874ICB	ICB	12/01/22 12:38				U	mg/L		-0.3	0.3			
WG555874LFB	LFB	12/01/22 12:47	WC221011-2	5.02		5	mg/L	100	90	110			
L77107-01AS	AS	12/01/22 13:00	WC221011-2	5.02	.79	5.25	mg/L	89	90	110			M2
L77107-01ASD	ASD	12/01/22 13:05	WC221011-2	5.02	.79	5.27	mg/L	89	90	110	0	20	M2
WG555874CCV1	CCV	12/01/22 13:39	WC221118-10	2.008		2.028	mg/L	101	90	110			
WG555874CCB1	CCB	12/01/22 13:47				U	mg/L		-0.3	0.3			
WG555874CCV2	CCV	12/01/22 14:59	WC221118-10	2.008		2.111	mg/L	105	90	110			
WG555874CCB2	CCB	12/01/22 15:07				U	mg/L		-0.3	0.3			
WG555874CCV3	CCV	12/01/22 15:43	WC221118-10	2.008		2.09	mg/L	104	90	110			
WG555874CCB3	CCB	12/01/22 15:50				U	mg/L		-0.3	0.3			

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		1.974	mg/L	99	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.18	0.18			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.150195		.13	mg/L	87	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	200.410195		189.8	mg/L	95	1	200			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	1.0013		.958	mg/L	96	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	1.0013	.074	1.065	mg/L	99	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	1.0013	.074	1.094	mg/L	102	85	115	3	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		.988	mg/L	99	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.18	0.18			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		.98	mg/L	98	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.18	0.18			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.973	mg/L	97	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.18	0.18			

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555421													
WG555421ICV	ICV	11/22/22 11:45	MS220930-3	.05		.05011	mg/L	100	90	110			
WG555421ICB	ICB	11/22/22 11:47				U	mg/L		-0.00022	0.00022			
WG555421LFB	LFB	11/22/22 11:49	MS221101-6	.0501		.04939	mg/L	99	85	115			
WG555421CCV1	CCV	11/22/22 12:03	MS221025-2	.2505		.24822	mg/L	99	90	110			
WG555421CCB1	CCB	11/22/22 12:05				U	mg/L		-0.0003	0.0003			
WG555421CCV2	CCV	11/22/22 12:25	MS221025-2	.2505		.24692	mg/L	99	90	110			
WG555421CCB2	CCB	11/22/22 12:27				U	mg/L		-0.0003	0.0003			
L77132-04AS	AS	11/22/22 12:29	MS221101-6	.0501	U	.05066	mg/L	101	70	130			
L77132-04ASD	ASD	11/22/22 12:30	MS221101-6	.0501	U	.05027	mg/L	100	70	130	1	20	
WG555421CCV3	CCV	11/22/22 12:41	MS221025-2	.2505		.24626	mg/L	98	90	110			
WG555421CCB3	CCB	11/22/22 12:43				U	mg/L		-0.0003	0.0003			

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lithium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		1.9725	mg/L	99	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.024	0.024			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.03992		.0366	mg/L	92	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	.0998		.1043	mg/L	105	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	.998		.9836	mg/L	99	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	.998	U	.965	mg/L	97	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	.998	U	.9736	mg/L	98	85	115	1	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		.9878	mg/L	99	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.024	0.024			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		.9783	mg/L	98	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.024	0.024			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.965	mg/L	97	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.024	0.024			

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	100		97.87	mg/L	98	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.6	0.6			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	1.001		.96	mg/L	96	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	201.201		202.9	mg/L	101	1	200			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	49.99676		48.66	mg/L	97	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	49.99676	5.93	53.93	mg/L	96	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	49.99676	5.93	56.54	mg/L	101	85	115	5	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	50		49.15	mg/L	98	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.6	0.6			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	50		49.08	mg/L	98	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.6	0.6			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	50		48.7	mg/L	97	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.6	0.6			

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		1.948	mg/L	97	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.03	0.03			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.0498		.046	mg/L	92	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	49.9498		47.86	mg/L	96	1	200			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	.499		.496	mg/L	99	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	.499	U	.499	mg/L	100	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	.499	U	.517	mg/L	104	85	115	4	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		.982	mg/L	98	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.03	0.03			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		.976	mg/L	98	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.03	0.03			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.971	mg/L	97	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.03	0.03			

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG554864													
WG554864ICV	ICV	11/14/22 16:01	HG221114-3	.005005		.00524	mg/L	105	95	105			
WG554864ICB	ICB	11/14/22 16:02				U	mg/L		-0.0002	0.0002			
WG554864PQV	PQV	11/14/22 16:03	HG221114-5	.001001		.00099	mg/L	99	70	130			
WG554864LRB	LRB	11/14/22 16:04				U	mg/L		-0.00044	0.00044			
WG554864LFB	LFB	11/14/22 16:05	HG221114-6	.002002		.00196	mg/L	98	85	115			
WG554864CCV1	CCV	11/14/22 16:12	HG221114-3	.005005		.00528	mg/L	105	90	110			
WG554864CCB1	CCB	11/14/22 16:13				U	mg/L		-0.0002	0.0002			
L77110-03LFM	LFM	11/14/22 16:22	HG221114-6	.002002	U	.0019	mg/L	95	85	115			
L77110-03LFMD	LFMD	11/14/22 16:23	HG221114-6	.002002	U	.00181	mg/L	90	85	115	5	20	
WG554864CCV2	CCV	11/14/22 16:24	HG221114-3	.005005		.00519	mg/L	104	90	110			
WG554864CCB2	CCB	11/14/22 16:25				U	mg/L		-0.0002	0.0002			
WG554864CCV3	CCV	11/14/22 16:32	HG221114-3	.005005		.00528	mg/L	105	90	110			
WG554864CCB3	CCB	11/14/22 16:33				U	mg/L		-0.0002	0.0002			

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		1.991	mg/L	100	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.024	0.024			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.04016		.0368	mg/L	92	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	.1004		.101	mg/L	101	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	.502		.5007	mg/L	100	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	.502	U	.4984	mg/L	99	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	.502	U	.53	mg/L	106	85	115	6	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		.9968	mg/L	100	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.024	0.024			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		.9946	mg/L	99	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.024	0.024			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.9893	mg/L	99	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.024	0.024			

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG554619													
WG554619ICV	ICV	11/09/22 23:49	WI220903-1	2.416		2.314	mg/L	96	90	110			
WG554619ICB	ICB	11/09/22 23:51				U	mg/L		-0.02	0.02			
WG554619LFB	LFB	11/09/22 23:54	WI220826-7	2		2.004	mg/L	100	90	110			
WG554619CCV1	CCV	11/10/22 0:04	WI221104-3	2		1.989	mg/L	99	90	110			
WG554619CCB1	CCB	11/10/22 0:08				U	mg/L		-0.02	0.02			
L77134-01DUP	DUP	11/10/22 0:19			U	U	mg/L				0	20	RA
WG554619CCV2	CCV	11/10/22 0:21	WI221104-3	2		1.986	mg/L	99	90	110			
WG554619CCB2	CCB	11/10/22 0:25				U	mg/L		-0.02	0.02			
L77133-01AS	AS	11/10/22 0:34	WI220826-7	6	2.94	8.849	mg/L	98	90	110			
WG554619CCV3	CCV	11/10/22 0:37	WI221104-3	2		1.986	mg/L	99	90	110			
WG554619CCB3	CCB	11/10/22 0:40				U	mg/L		-0.02	0.02			

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG554619													
WG554619ICV	ICV	11/09/22 23:49	WI220903-1	.608		.589	mg/L	97	90	110			
WG554619ICB	ICB	11/09/22 23:51				U	mg/L		-0.01	0.01			
WG554619LFB	LFB	11/09/22 23:54	WI220826-7	1		1.006	mg/L	101	90	110			
WG554619CCV1	CCV	11/10/22 0:04	WI221104-3	1		.994	mg/L	99	90	110			
WG554619CCB1	CCB	11/10/22 0:08				U	mg/L		-0.01	0.01			
L77133-01AS	AS	11/10/22 0:16	WI220826-7	1	U	.983	mg/L	98	90	110			
L77134-01DUP	DUP	11/10/22 0:19			U	U	mg/L				0	20	RA
WG554619CCV2	CCV	11/10/22 0:21	WI221104-3	1		.998	mg/L	100	90	110			
WG554619CCB2	CCB	11/10/22 0:25				U	mg/L		-0.01	0.01			
WG554619CCV3	CCV	11/10/22 0:37	WI221104-3	1		.995	mg/L	100	90	110			
WG554619CCB3	CCB	11/10/22 0:40				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	20		19.51	mg/L	98	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.6	0.6			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	1.005		1.04	mg/L	103	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	1.005		1.05	mg/L	104	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	99.95798		96.58	mg/L	97	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	99.95798	1.6	97.54	mg/L	96	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	99.95798	1.6	103.2	mg/L	102	85	115	6	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	10		9.84	mg/L	98	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.6	0.6			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	10		9.92	mg/L	99	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.6	0.6			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	10		9.72	mg/L	97	90	110			
WG555206CCB3	CCB	11/17/22 19:01				.2	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG554801													
WG554801PBW	PBW	11/11/22 13:33				U	mg/L		-20	20			
WG554801LCSW	LCSW	11/11/22 13:35	PCN623306	1000		980	mg/L	98	80	120			
L77174-02DUP	DUP	11/11/22 14:04			836	852	mg/L				2	10	

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555421													
WG555421ICV	ICV	11/22/22 11:45	MS220930-3	.05		.05061	mg/L	101	90	110			
WG555421ICB	ICB	11/22/22 11:47				U	mg/L		-0.00022	0.00022			
WG555421LFB	LFB	11/22/22 11:49	MS221101-6	.05005		.04956	mg/L	99	85	115			
WG555421CCV1	CCV	11/22/22 12:03	MS221025-2	.1001		.10016	mg/L	100	90	110			
WG555421CCB1	CCB	11/22/22 12:05				U	mg/L		-0.0003	0.0003			
WG555421CCV2	CCV	11/22/22 12:25	MS221025-2	.1001		.09909	mg/L	99	90	110			
WG555421CCB2	CCB	11/22/22 12:27				U	mg/L		-0.0003	0.0003			
L77132-04AS	AS	11/22/22 12:29	MS221101-6	.05005	U	.05352	mg/L	107	70	130			
L77132-04ASD	ASD	11/22/22 12:30	MS221101-6	.05005	U	.053	mg/L	106	70	130	1	20	
WG555421CCV3	CCV	11/22/22 12:41	MS221025-2	.1001		.09873	mg/L	99	90	110			
WG555421CCB3	CCB	11/22/22 12:43				U	mg/L		-0.0003	0.0003			

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	100		98.18	mg/L	98	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.6	0.6			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	1.002		1.01	mg/L	101	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	1.002		1.08	mg/L	108	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	100.0023		96.13	mg/L	96	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	100.0023	10.6	106.1	mg/L	95	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	100.0023	10.6	110.8	mg/L	100	85	115	4	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	50		49.24	mg/L	98	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.6	0.6			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	50		48.9	mg/L	98	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.6	0.6			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	50		48.7	mg/L	97	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.6	0.6			

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555081													
WG555081ICB	ICB	11/16/22 11:07				U	mg/L		-3	3			
WG555081CCB1	CCB	11/16/22 13:15				U	mg/L		-3	3			
WG555081CCB2	CCB	11/16/22 13:18				U	mg/L		-3	3			
WG555081CCB3	CCB	11/16/22 13:40				U	mg/L		-3	3			
WG555081LFB1	LFB	11/16/22 13:40	WI220830-3	10		10	mg/L	100	90	110			
WG555081CCB4	CCB	11/16/22 13:41				U	mg/L		-3	3			
WG555081LFB2	LFB	11/16/22 13:41	WI220830-3	10		9.3	mg/L	93	90	110			
L77134-02AS	AS	11/16/22 13:43	SO4TURB5X	10	122	112.7	mg/L	-93	90	110			M3
WG555081CCB5	CCB	11/16/22 13:43				U	mg/L		-3	3			
WG555081CCB6	CCB	11/16/22 13:46				U	mg/L		-3	3			
WG555081CCB7	CCB	11/16/22 14:08				U	mg/L		-3	3			
WG555081CCB8	CCB	11/16/22 14:12				U	mg/L		-3	3			
WG555081CCB9	CCB	11/16/22 14:36				U	mg/L		-3	3			
L77134-01DUP	DUP	11/16/22 14:36			393	396.6	mg/L				1	20	M3 RA
WG555081CCB10	CCB	11/16/22 14:38				U	mg/L		-3	3			

GCC

ACZ Project ID: ***L77134***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Vanadium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		2.011	mg/L	101	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.015	0.015			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.025025		.025	mg/L	100	70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	.1001		.103	mg/L	103	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	.5005		.503	mg/L	100	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	.5005	U	.4962	mg/L	99	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	.5005	U	.527	mg/L	105	85	115	6	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		1.022	mg/L	102	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.03	0.03			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		1	mg/L	100	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.03	0.03			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		1.004	mg/L	100	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.03	0.03			

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG555206													
WG555206ICV	ICV	11/17/22 17:12	II221116-1	2		1.906	mg/L	95	95	105			
WG555206ICB	ICB	11/17/22 17:18				U	mg/L		-0.06	0.06			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.0501		.046	mg/L	92	70	130			
WG555206PQV	PQV	11/17/22 17:21	II221109-2	.0501		.051	mg/L		70	130			
WG555206SIC	SIC	11/17/22 17:24	II221102-3	.1002		.1	mg/L	100	80	120			
WG555206LFB	LFB	11/17/22 17:30	II221104-3	.50045		.494	mg/L	99	85	115			
L77131-02AS	AS	11/17/22 17:42	II221104-3	.50045	U	.489	mg/L	98	85	115			
L77131-02ASD	ASD	11/17/22 17:45	II221104-3	.50045	U	.522	mg/L	104	85	115	7	20	
WG555206CCV1	CCV	11/17/22 18:00	II221110-1	1		.973	mg/L	97	90	110			
WG555206CCB1	CCB	11/17/22 18:03				U	mg/L		-0.06	0.06			
WG555206CCV2	CCV	11/17/22 18:37	II221110-1	1		.965	mg/L	97	90	110			
WG555206CCB2	CCB	11/17/22 18:40				U	mg/L		-0.06	0.06			
WG555206CCV3	CCV	11/17/22 18:58	II221110-1	1		.965	mg/L	97	90	110			
WG555206CCB3	CCB	11/17/22 19:01				U	mg/L		-0.06	0.06			

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

GCC Rio Grande ACZ Project ID: ***L77134***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L77134-01	WG555874	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG554619	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554801	Residue, Filterable (TDS) @180C	SM2540C	Z5	Oven temperature observed out of range. Sample and Quality Control attained a consistent weight and all Quality controls were within limits. Reanalyze at client request
	WG555421	Selenium, dissolved	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
			M200.8 ICP-MS	EA	Concentration estimated. Analytical result was less than the negative MDL due to matrix interferences.
	WG555081	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L77134-02	WG555874	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG554619	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG554801	Residue, Filterable (TDS) @180C	SM2540C	Z5	Oven temperature observed out of range. Sample and Quality Control attained a consistent weight and all Quality controls were within limits. Reanalyze at client request
	WG555081	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

GCC Rio Grande ACZ Project ID: ***L77134***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L77134
Date Received: 11/09/2022 11:51
Received By:
Date Printed: 11/10/2022

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
NA38895	3.7	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GCC Rio Grande
105495

ACZ Project ID: L77134
Date Received: 11/09/2022 11:51
Received By:
Date Printed: 11/10/2022

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ LABORATORIES | Accredited Environmental Testing | 2773 Downhill Drive, Steamboat Springs, CO 80487, (970) 879-6590 | L77134

CHAIN of CUSTODY

Report to:

Name: Amy Veek	Address: 3372 Lime Road
Company: GCC Rio Grande Inc	Pueblo CO 81004
E-mail: aveek@gcc.com	Telephone: 719-647-6861

Copy of Report to:

Name: Landon Beck	E-mail: lbeck@resourcehydrogeologic.com
Company: Resource Hydrogeologic	Telephone: (970) 459-4865

Invoice to:

Name: Amy Veek	Address: 3372 Lime Road
Company: GCC Rio Grande Inc	Pueblo CO 81004
E-mail: aveek@gcc.com	Telephone: 719-647-6861

Copy of Invoice to:

Name:	Address:
Company:	
E-mail:	Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ✓ NO

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes No ✓

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Amy Veek **Sampler's Site Information** **State** CO **Zip code** 81004 **Time Zone** MDT

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: GW-COMPLIANCE

PO#: 105495

Reporting state for compliance testing:

Check box if samples include NRC licensed material?

ANALYSES REQUESTED (attach list or use quote number)

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	GW-COMpliance							
MW-14	11/8/2022 10:09	GW	3	✓							
MW-13	11/8/2022 10:57	GW	3	✓							

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	11/8/2022 14:15	[signature]	11/9/22
			11:51

Qualtrax ID: 1984 Revision #: 2 White - Return with sample. Yellow - Retain for your records.

L77134 Chain of Custod

ATTACHMENT 3 - GCC Groundwater Sampling Lab Data Validation Report

DIANE SHORT & ASSOCIATES, INC.
2634 S. Deframe Circle
Lakewood CO 80228
303:271-9642
dsa7cbc@eazyqaqc.com

INORGANIC DATA QUALITY REVIEW REPORT
METALS BY ICPMS, ICP, CVAA, WET CHEMISTRY AND SPECIAL METHODS

SDG	L72128, L72232, L73169, L73303, L75198, L77107, L77134		
PROJECT	GCC Rio Grande – First through Fourth Quarter 2022, Resource Hydrogeologic Services and GCC		
LABORATORY	ACZ Laboratories, Steamboat Springs, CO		
SAMPLE MATRIX	Water	SAMPLING DATE:	3/22, 3/28, 5/10, 5/17, 8/15, 11/7, 11/8/2022
ANALYSES REQUESTED	EPA 200.7 (metals by ICP, dissolved), EPA 200.8 (metals by ICPMS, dissolved), EPA 245.1 (mercury, dissolved), SM4500F-C (Fluoride), M353.2 (nitrate + nitrite as nitrogen, nitrite as nitrogen, nitrate as nitrogen); SM2540C (total dissolved solids); D516-02/-07/-11 -Sulfate by turbidimetry; SM4500Cl-E (Chloride)		
SAMPLE NUMBER	MW-7, MW-2B, MW-13, MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-14		

DATA REVIEWER: John Huntington

QA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: ___DLS___12/16/2022

Telephone Logs included Yes____ No __X_
Contractual Violations Yes____ No __X_

The Contract Laboratory Program National Functional Guidelines for Inorganic Data Review 2016 (NFG) and the requested EPA Methods, Methods of Chemical Analysis of Water and Wastes (MCAWW) and Standard Methods (SM, current updates) have been referenced by the reviewer to perform this data validation review. The review includes evaluation of calibration, holding times and Quality Control (QC) for all samples; and 10% review of transcription and calculation algorithms from the raw data. Determining the exact analytical sequence was performed to verify that the frequencies of QC sample analyses were met, where applicable, on 10% of the data. General comments regarding the data/analytical quality are part of the review when raw data are submitted. The reports use Diane Short & Associates (DSA) validation qualifiers in the text and tables that include the compilation of the reasons for qualification and the associated values, as defined in each section for QC outliers. The United States Environmental Protection Agency (EPA) qualifiers have been provided. The DSA qualifiers, EPA qualifiers, and validation codes are included in the Electronic Data Deliverable (EDD). Note: those items in this report which have an asterisk (*) are specific to inductively coupled plasma-mass spectrometry (ICP-MS) and may include inductively coupled plasma-atomic emission spectroscopy (ICP-AES) as applicable.

I. DELIVERABLES

All deliverables were present as specified in the Statement of Work (SOW), SW-846, or in the project contract. This includes the Case Narrative.

Yes X No _____

Data were submitted for EPA 200.7 (16 metals by ICP, dissolved), EPA 200.8 (4 metals by ICPMS, dissolved), EPA 245.1 (mercury, dissolved), SM4500F-C (Fluoride), M353.2 (nitrate + nitrite as nitrogen, nitrite as nitrogen, nitrate as nitrogen); SM2540C (total dissolved solids); D516-02/-07/-11 -Sulfate by turbidimetry; SM4500Cl-E (Chloride). Note that for these SDGS, pH was not requested.

The data were validated at EPA Level III (EPA Stage 2B) with a minimum of 10% validated as EPA raw data review). All SDGs are Level IV.

The laboratory has reported detections to the MDL and has flagged results between the MDL and the PQL with a "B". This is noted because many laboratories use "J" instead of "B" for this purpose, so the meaning of this flag needs to be kept in mind when reviewing the data. The definition of lab flags is provided in the report in the Inorganic Reference section.

II. ANALYTICAL REPORT FORMS

A. The Analytical Report or Data Sheets are present and complete for all requested analyses.

Yes X No _____

B. Holding Times

1. The contract holding times were met for all analyses (time of sample receipt to date of analysis).

Yes X No _____ N/A _____

Data are qualified from date of collection to analysis, as presented in the next section.

2. The method holding times were met for all analyses (time of sample collection to date of analysis per the holding times in the project QAPP).

Yes _____ No X

The method holding times were met for all analyses, with the following clarifications and exceptions.

Results reported by the lab are qualified as JH#, where # is the number of days since sampling. An outlier that is greater than 4x the hold time is rejected. Qualified results not rejected. should be considered as estimates due to time and temperature changes in the samples.

In this set of data, nitrate and nitrite results have been flagged by the laboratory as out of hold in SDG L73169. The analysis has exceeded the 48-hr hold time for individual determination of nitrate or nitrite. The results could be biased due to microbial degradation or formation of nitrate and nitrite. The bias is typically thought to be low, but a positive bias is also possible. In this case, the outliers are only about 12 hours beyond the hold time. Any degradation is likely to be insignificant during this brief time since the samples were kept cold, which suppresses microbial activity.

In addition, two samples in SDG L73169 and one sample in SDG L73303 were out of hold for TDS. The original analysis in both cases was within hold time, but a reanalysis was required to dilute the samples to be within method requirements.

Qualifiers added are shown within the body of this report and in the qualified EDD. There are no qualifiers required for 3rd and 4th Quarter data.

3. Samples were properly preserved to pH < 2 for metals, and applicable preservative was used for other methods.

Yes X No _____ N/A _____

The temperature of the cooler associated with SDG L77107 was 9.9° C on receipt. This is not of concern for the metals analyses, but for the samples not preserved with acid this is a deviation from the 40CFR temperature limits, which specify and upper temperature limit of 6° C for samples. Validation guidance allows results to remain unqualified if the cooler temperature is less than 10° C, so no qualifiers added. This is the allowed temperature for microbiological samples, and since many of the analyte loss pathways are biological in nature it is reasonable.

C. Chains of Custody (COC)

Chains of Custody (COC) were reviewed and all fields were complete, signatures were present, and cross outs were clean and initialed.

Yes X No _____

All sample analyses were sent under a COC to ACZ Labs, Steamboat Springs, CO.

III. CALIBRATION AND STANDARDIZATION

1. Initial calibration, mass calibration, and resolution checks for both low and high mass isotopes were within 0.1 atomic mass unit (amu) of the true value. (*)

Yes X No _____

All requisite instrument tuning or performance measures were done according to the method requirements. (*).

US EPA Tune Check Sample reports were provided in the raw data and reports indicated the tunes passed in all cases.

2. Mass calibration and resolution checks for both low and high mass isotopes produced a peak width of approximately 0.6 to 0.9 amu at 10% peak height. (*)

Yes X No _____

3. Instrument Stability

A tuning solution was analyzed a minimum of four times, and the relative standard deviation (RSD) of absolute signals for all analytes was less than 5%. (*)

Yes X No _____

B. Instrument Performance and Calibration Standards

1. The Initial Calibration Verification (ICV) standard was within the required control limits of ± 10% of the established value for all analytes. (80 – 120% for mercury, 85 – 115% for Se species)

Yes X No _____

2. The Continuing Calibration Verification (CCV) standards were analyzed at the required frequency following every 10 analyses.

Yes X No _____

Sequencing was performed to verify that the frequencies were met for client samples and for proper application of the qualifiers.

3. The CCV standard percent recovery results were within the required control limits of 90 – 110% (80 – 120 % for mercury, 75 – 125% for Se species)

Yes _____ No X

All CCVs were within criteria except for one lead result in SDG L75198, which had an elevated recovery of 112%. There are associated sample results, but they all show no detections for lead. Since this elevated recovery indicates a possible high bias, no qualifiers are added. In addition, the next CCV is in control.

4. The correlation coefficients met the ≥ 0.995 criterion, as applicable to the method for mercury.

Yes X No _____

IV. CONTRACT REQUIRED DETECTION LIMIT (CRDL) STANDARDS

1. The 2x CRDL standards were analyzed for metals as required in the QAPP.

Yes X No _____ N/A _____

2. The 2x CRDL standards were within the required control limits of 70 – 130% (ICP: 50 – 150% for Lead, Antimony, and Thallium; ICPMS: 50 – 150% for Cobalt, Manganese, and Zinc).

Yes X No _____

All CRDLs were within criteria. A CRDL check is not required for Method 200.8. However, the laboratory initial calibration run each day has a low-level standard that is very near the reporting limit. This meets method requirements. The 200.7 method does include an RL Check standard that meets criteria.

V. INTERFERENCES

Isobaric Elemental and Molecular Interferences (* for ICP-MS)

The isotope selected was free of isobaric elemental and elemental interferences as measured by the Interference Check Sample Solutions A and AB (ICSA/ICSAB) for ICP-AES and ICP-MS.

Yes X No _____

Data are only qualified if the interfering analyte is present in the sample and at levels near the high end of the linear range of the instrument. Note that the interference check standards are only reported in the raw data for ICP. Method 200.8 (ICPMS) does not specify the use of interference check standards.

VI. LABORATORY REAGENT BLANK (LRB) OR PREPARATION BLANK

A. Blanks were prepared and analyzed at the required frequency of at least one per each set of samples.

Yes X No _____

The ICB is used as the method blank. This is acceptable since no digestion was performed on the samples prior to analysis.

B. All analytes in the blank were less than the MDL.

Yes _____ No X

Analytes reported as contaminants in the Preparation Blank are qualified with the DSA qualifier "UMB#," where # is the value of the associated blank. Only detected data less than 10x the blank for metals or 5x the blank for other analyses are qualified. Such data are fully usable as non-detected values at the reported concentration or elevated reporting limit.

In SDG L75198, one TDS blank had a detected level above the reporting limit, at 24 mg/L. The associated sample results are much greater than 10x this level, so no qualifiers are required.

C. The source of contamination was corrected, and the samples were reanalyzed.

Yes _____ No _____ N/A X

VII. CALIBRATION BLANKS

The highest blank associated with any particular analyte is used for the qualification process and is the value entered after the DSA "B" blank-qualifier descriptor.

A. Calibration Blanks were prepared and analyzed at the required frequency after each set of 10 samples as required by the method.

Yes X No _____
Sequencing was required to verify association with client samples.

B. The Calibration Blank results were within the required control limits or did not require data qualification.

Yes _____ No X N/A _____
Analytes reported as contaminants in the Calibration Blanks are qualified with the DSA qualifier "UCB#," where # is the value of the blank. Such data are fully usable as non-detected values at the reported concentration or elevated reporting limit. Only detected data less than 10 × blank for metals and 5 × blank for other analyse are qualified.

In the first quarter data, CCB detections include arsenic, calcium, chloride, cobalt selenium and sodium. However, these are all associated with non-detects in samples or else with sample results > 10x the CCB level. No qualifiers are required.

In the second quarter data, selenium is detected in one CCB and cobalt in another. However, the selenium CCB is associated with non-detects in samples or analytical runs not associated with the samples. The samples associated with the cobalt outlier are non-detect for cobalt. No qualifiers are added.

In the third quarter data, several CCB detections are observed for selenium. This impacts 3 samples with detections. Two of those have detections > 10x the CCB and are not qualified. One, sample MW-7, is qualified as UCB# where # is the level of the associated CCB.
One ICB has a detection of arsenic in SDG L75198. Subsequent CCBs have no detections of arsenic. There is one sample run after the ICB but prior to the first CCB, and it has an arsenic result > 10x the ICB. Therefore, no qualifiers are required for it, and since the CCBs are in control for the other samples run no qualifiers are added for them.

In the fourth quarter data, one CCB detection of arsenic is observed in SDG L77134. The arsenic result for MW-13 is qualified as UCB# where # is the level of the associated CCB.
In SDG L77107, one ICB has a detection of copper. There are two samples with detections of copper that are impacted by this ICB. The detections observed in these samples are qualified as UCB#, where # is the level in the associated ICB.

C. Field, decon rinse or other Field Blanks are contained and identified in the package.

Yes _____ No X N/A _____

D. The reported results for the Field Blanks are less than the CRDL or less than the MDL, whichever is lower.

Yes _____ No _____ N/A X

VIII. INTERNAL STANDARD RESPONSES (*)

A. A minimum of three internal standards were present in all standards and blanks at identical levels.

Yes X No _____

B. The absolute response of each internal standard (IS) was within the required EPA control limits of 60 – 125%.

Yes X No _____
For the analytes reported.

C. Dilutions were performed as required by the method to minimize errors if the internal standard analyte is naturally present in a sample.

Yes _____ No _____ N/A X

D. If not, the appropriate test procedures were performed, and the required corrections made.

Yes _____ No _____ N/A X

IX. MATRIX SPIKES

A. Matrix Spike and Matrix Spike Duplicate (MS/MSD) samples were prepared and analyzed at one per every 20 or fewer samples for each matrix and each sampling event per day as required.

Yes X No _____
Matrix spikes, duplicates, and matrix spike duplicates were present. For wet chemistry, a matrix spike and a matrix duplicate are analyzed. The project manager will determine if the project frequency is met for these methods. Matrix spikes associated with this set of data are shown in the table below. It is recommended that the client collect Representative samples for each method and designate them to the laboratory to be used for the MS/MSDs. As these samples are collected quarterly, only 1 QC sample would be required per year.

Spiked Sample - L72128	Methods
MW-7	M200.7 ICP
Spiked Sample – L72232	
MW-8	M200.8 ICP-MS, SM4500F-C
MW-12	M200.7 ICP
Spiked Sample - SDG L73303	
MW-14	M200.8 ICP-MS
MW-12	M200.7 ICP
MW-11	M200.7 ICP
MW-6	M200.8 ICP-MS
MW-9	M353.2 - Automated Cadmium Reduction, M200.8 ICP-MS
MW-10	D516-02/-07/-11 - TURBIDIMETRIC
MW-8	M200.8 ICP-MS
Spiked Sample – SDG L73169	
MW-2B	SM4500Cl-E
Spiked Sample – SDG L75198	
MW-11	M200.7 ICP, SM4500F-C -Fluoride, D516-02/-07/-11 – TURBIDIMETRIC

MW-12	M200.8 ICPMS
MW-7	M200.8 ICPMS – Se
MW-14	SM4500Cl-E – Cl, M245.1 CVAA
MW-08	M353.2 - Automated Cadmium Reduction
Spiked Sample – SDG L77107	
MW-11	M200.7 ICP
MW-2B	M200.8 ICPMS
MW-09	SM4500Cl-E – Cl, M245.1 CVAA
MW-06	SM4500Cl-E – Cl, SM4500F-C, D516-02/-07/-11 – TURBIDIMETRIC
MW-19	SM4500F-C
Spiked Sample – SDG L77134	
MW-13	D516-02/-07/-11 – TURBIDIMETRIC

B. The MS/MSD percent recoveries were within the required control limits of 75 – 125%.

Yes _____ No __X__ N/A _____

When matrix spikes are present, associated data are qualified with the DSA qualifier JMS#, where # is the value of the %R for the associated MS or MSD. Data may be biased high or low proportional to the spike recovery. The laboratory 'flags' data as M1 whether they are > 4x spike or within the qualifying limits. The laboratory flags are not recommended for use in evaluating the data as MS/MSD recoveries are not used for qualification of data if the result in the parent sample is > 4x the spike. Non-detected data are not qualified for high spikes. Only those MS/MSDs with parent samples in these projects are considered.

For some methods, such as Method 300.0 and Method 353.2, the laboratory uses a recovery window of 90-110%. Results are only qualified if the recoveries are outside the window specified above.

In SDG L75198, the recovery of copper in the spike of MW-11 was 16% in the MS and 15% in the MSD. Validation guidance specifies that for recoveries below 30% a post-digestion spike should be analyzed. However, these are direct-injection analyses and no post-digestion spike is possible. Since the sample result is a non-detection for copper, the guidance specifies that the data be qualified as "R", unusable. The copper result in sample MW-11 is qualified as RMS11. All other MS/MSD recoveries for ICP and ICP-MS metals in this SDG are acceptable. The laboratory should have re-spiked and reanalyzed this sample for copper.

The validator reviewed the raw data for this run to determine if there was a calculational or run error. No such error could be identified. Standard deviations of run replicates did not suggest excessive instrument variability and the raw results match the reported results. CCVs were acceptable, and a matrix spike from a separate project in the same run showed normal recoveries.

In SDG L75198, the recovery of mercury in the spike of MW-14 was 41% in the MS and 40% in the MSD. The result is qualified as JMS40, indicating a possible low bias.

C. A Post Digestion Spike was prepared and analyzed if required.

Yes _____ No _____ N/A __X__

Not required in this case since samples are not digested.

D. The MS/MSD samples were client samples.

Yes X No _____

MS/MSD analyses were also performed on client samples from other SDGs but are not pertinent for qualification.

X. MATRIX DUPLICATE

A. Matrix Duplicate samples were prepared and analyzed per every 20 samples for each matrix.

Yes X No _____

Lab duplicates are present for Nitrate, nitrite, chloride, alkalinity, TDS, and sulfate.

Parent Sample SDG L72128	Methods
MW-2B	SM2320B - alkalinity
Parent Sample SDG L72232	
MW-8	SM2540C – TDS
MW-14	SM4500Cl-E
Parent Sample SDG L73169	
MW-13	M353.2 - Automated Cadmium Reduction
MW-7	SM4500Cl-E
Parent Sample SDG L73303	
MW-11	SM2320B - alkalinity
MW-9	SM2320B - alkalinity
MW-10	M353.2 - Automated Cadmium Reduction, SM4500Cl-E
MW-12	M353.2 - Automated Cadmium Reduction
MW-6	SM2540C - TDS
MW-14	D516-02/-07/-11 – TURBIDIMETRIC
Parent Sample SDG L75198	
MW-8	SM2320B – alkalinity, M353.2 - Automated Cadmium Reduction
MW-13	SM4500Cl-E
MW-12	M353.2 - Automated Cadmium Reduction
Parent Sample SDG L77107	
MW-6	SM2320B – alkalinity
MW-7	SM4500Cl-E
MW-10	SM4500Cl-E, M353.2 - Automated Cadmium Reduction
MW-14	M353.2 - Automated Cadmium Reduction
MW-8	SM2540C - TDS

B. The MS/MSD or MD relative percent difference (RPD) values were within the required control limit of ≤ 20 RPD for water samples or ≤ 35% RPD for soil samples. If either of the MD results is less than 5x RL, the RPD is not used. In that case the difference between the results is evaluated and the QC limit is the difference between the original and the duplicate results (± 1x RL for water samples or ± 2x RL for soil samples). If the parent sample result is greater than 4 x the spike concentration, the MS/MSD is not evaluated. Only detected results are qualified for MS/MSD RPD outliers. Only those MS/MSDs with parent samples in these projects are considered.

Yes X No _____
Data are qualified with the DSA qualifier JD#, where # is the value of the RPD for the associated MD or MS/MSD analyses, when there are outliers. In this case there are no qualifiers.

XI. LABORATORY CONTROL SAMPLE

A. Laboratory Control Samples (LCS) were prepared and analyzed per every 20 samples for each matrix.

Yes X No _____

B. The LCS recoveries were within the required control limits of 80 – 120% for metals and for wet chemistry analyses 85 – 115% .

Yes X No _____
All LCS analyses were within criteria.

XII. FIELD QC

A. Field QC samples were identified.

Yes X No _____
Sample MW-2B is a blind duplicate of sample MW-7 in both first and second quarter data.
Sample MW-2B is a blind duplicate of sample MW-8 in both third and fourth quarter data.

B. Field duplicates were within the guidance limit of < 30% RPD for water samples or < 50% RPD for soil samples. If values are less than 5x RL, the water limit is ± 1x RL or the soil limit is ± 2x RL.

Yes X No _____ N/A _____

XIII. SERIAL DILUTION

A. Serial Dilutions were analyzed for every 20 samples if the analyte concentrations were greater than 50x IDL.

Yes X No _____ N/A _____
Analyte concentrations are too low to require serial dilutions.

B. The percent difference (% D) criteria of ± 10% were met.

Yes _____ No _____ N/A X
When outliers are present, data are qualified with the DSA qualifier JE#, where # is the %D. Data could be biased, usually high, due to non-linear matrix or chemical effects.

XIV. CALCULATIONS

A. Data calculations were checked when required, and significant figures were correctly reported.

Yes X No _____
Over 25% of the data were checked from the raw data to the EDD values for each method and each SDG.

B. Appropriate dilution factors were applied to the calculated sample concentrations.

Yes X No _____

C. Data were acceptable for the total versus dissolved and the cation/ anion balance.
Yes _X__ No ___NA_____

Total metals were not requested, so the total vs dissolved check cannot be performed. For two of the SDGs, the analytes required for a minimal cation/anion balance are present, but this is not part of the scope for this validation. As part of the calculation check, one sample was checked (L68204-01) and passed Standard Methods criteria for cation-anion balance.

XV. OVERALL ASSESSMENT OF THE CASE

The laboratory has complied with the requested methods and the data is considered fully useable for project purposes with consideration of the following qualifications or comments.

Data were submitted for EPA 200.7 (16 metals by ICP, dissolved), EPA 200.8 (4 metals by ICPMS, dissolved), EPA 245.1 (mercury, dissolved), SM4500F-C (Fluoride), M353.2 (nitrate + nitrite as nitrogen, nitrite as nitrogen, nitrate as nitrogen); SM2540C (total dissolved solids); D516-02/-07/-11 -Sulfate by turbidimetry; SM4500Cl-E (Chloride). Note that for these SDGS, pH was not requested. Note 12 ICP metals for 3rd quarter.

The data were validated at EPA Level III (EPA Stage 2B) with a minimum of 10% validated as EPA raw data review). All SDGs are Level IV.

The laboratory has reported detections to the MDL and has flagged results between the MDL and the PQL with a "B". This is noted because many laboratories use "J" instead of "B" for this purpose, so the meaning of this flag needs to be kept in mind when reviewing the data. The definition of lab flags are provided in the laboratory report in the Inorganic Reference section.

Holding Times

The method holding times were met for all analyses, with the following clarifications and exceptions.

Results reported by the lab are qualified as JH#, where # is the number of days since sampling. An outlier that is greater than 4x the hold time is rejected. Qualified results not rejected. should be considered as estimates due to time and temperature changes in the samples.

In this set of data, nitrate and nitrite results have been flagged by the laboratory as out of hold in SDG L73169. The analysis has exceeded the 48-hr hold time for individual determination of nitrate or nitrite. The results could be biased due to microbial degradation or formation of nitrate and nitrite. The bias is typically thought to be low, but a positive bias is also possible. In this case, the outliers are only about 12 hours beyond the hold time. Any degradation is likely to be insignificant during this brief time since the samples were kept cold, which suppresses microbial activity.

In addition, two samples in SDG L73169 and one sample in SDG L73303 were out of hold for TDS. The original analysis in both cases was within hold time, but a reanalysis was required to dilute the samples to be within method requirements.

Qualifiers added are shown within the body of this report and in the qualified EDD. There are no qualifiers required for 3rd and 4th Quarter data.

Method Blanks

Analytes reported as contaminants in the Preparation Blank are qualified with the DSA qualifier "UMB#," where # is the value of the associated blank. Only detected data less than 10x the blank for metals or 5x the blank for other analyses are qualified. Such data are fully usable as non-detected values at the reported concentration or elevated reporting limit.

In SDG L75198, one TDS blank had a detected level above the reporting limit, at 24 mg/L. The associated sample results are much greater than 10x this level, so no qualifiers are required.

Initial and Continuing Calibration Blanks

Analytes reported as contaminants in the Calibration Blanks are qualified with the DSA qualifier "UCB#," where # is the value of the blank. Such data are fully usable as non-detected values at the reported concentration or elevated reporting limit. Only detected data less than 10 × blank for metals and 5 × blank for other analyse are qualified.

In the first quarter data, CCB detections include arsenic, calcium, chloride, cobalt selenium and sodium. However, these are all associated with non-detects in samples or else with sample results > 10x the CCB level. No qualifiers are required.

In the second quarter data, selenium is detected in one CCB and cobalt in another. However, the selenium CCB is associated with non-detects in samples or analytical runs not associated with the samples. The samples associated with the cobalt outlier are non-detect for cobalt. No qualifiers are added.

In the third quarter data, several CCB detections are observed for selenium. This impacts 3 samples with detections. Two of those have detections > 10x the CCB and are not qualified. One, sample MW-7, is qualified as UCB# where # is the level of the associated CCB.
One ICB has a detection of arsenic in SDG L75198. Subsequent CCBs have no detections of arsenic. There is one sample run after the ICB but prior to the first CCB, and it has an arsenic result > 10x the ICB. Therefore, no qualifiers are required for it, and since the CCBs are in control for the other samples run no qualifiers are added for them.

In the fourth quarter data, one CCB detection of arsenic is observed in SDG L77134. The arsenic result for MW-13 is qualified as UCB# where # is the level of the associated CCB.
In SDG L77107, one ICB has a detection of copper. There are two samples with detections of copper that are impacted by this ICB. The detections observed in these samples are qualified as UCB#, where # is the level in the associated ICB.

Matrix Spikes, Matrix Spike Duplicates, and Matrix Duplicates

Matrix spikes, duplicates, and matrix spike duplicates were present. For wet chemistry, a matrix spike and a matrix duplicate are analyzed. The project manager will determine if the project frequency is met for these methods. Matrix spikes associated with this set of data are shown in the table within the body of this report. It is recommended that the client collect Representative samples for each method and designate them to the laboratory to be used for the MS/MSDs. As these samples are collected quarterly, only 1 QC sample would be required per year.

When matrix spikes are present, associated data are qualified with the DSA qualifier JMS#, where # is the value of the %R for the associated MS or MSD. Data may be biased high or low proportional to the spike recovery. The laboratory 'flags' data as M1 whether they are > 4x spike or within the qualifying limits. The laboratory flags are not recommended for use in evaluating the data as MS/MSD recoveries are not used for qualification of data if the result in the parent sample is > 4x the spike. Non-detected data are not qualified for high spikes. Only those MS/MSDs with parent samples in these projects are considered.

For some methods, such as Method 300.0 and Method 353.2, the laboratory uses a recovery window of 90-110%. Results are only qualified if the recoveries are outside the window specified above.

In SDG L75198, the recovery of copper in the spike of MW-11 was 16% in the MS and 15% in the MSD. Validation guidance specifies that for recoveries below 30% a post-digestion spike should be analyzed. However, these are direct-injection analyses and no post-digestion spike is possible. Since the sample result is a non-detection for copper, the guidance specifies that the data be qualified as "R", unusable. The copper result in

sample MW-11 is qualified as RMS11. All other MS/MSD recoveries for ICP and ICP-MS metals in this SDG are acceptable. The laboratory should have re-spiked and reanalyzed this sample for copper.
The validator reviewed the raw data for this run to determine if there was a calculational or run error. No such error could be identified. Standard deviations of run replicates did not suggest excessive instrument variability and the raw results match the reported results. CCVs were acceptable, and a matrix spike from a separate project in the same run showed normal recoveries.

In SDG L75198, the recovery of mercury in the spike of MW-14 was 41% in the MS and 40% in the MSD. The result is qualified as JMS40, indicating a possible low bias.

Lab duplicates are present for Nitrate, nitrite, chloride, alkalinity, TDS, and sulfate. RPDS are acceptable for lab duplicates and for matrix spike duplicates. No qualifiers are added.

Field QC

Sample MW-2B is a blind duplicate of sample MW-7 in both first and second quarter data.

Sample MW-2B is a blind duplicate of sample MW-8 in both third and fourth quarter data.

Results are within criteria and no qualifiers are added.

TABLE OF QUALIFIED DATA

CLIENTID	LABID	ANALYTE	RESULT	Lab Flag	UNITS	MDL	PQL	DSA	EPA
MW-13	L77134-02	Arsenic, dissolved	0.00102	B	mg/L	0.001	0.005	UCB0.00026	UB
MW-11	L75198-08	Copper, dissolved		U	mg/L	0.01	0.05	RMS15	R
MW-9	L77107-05	Copper, dissolved	0.051	B	mg/L	0.05	0.25	UCB0.014	UB
MW-10	L77107-06	Copper, dissolved	0.060	B	mg/L	0.05	0.25	UCB0.014	UB
MW-13	L73169-01	Nitrate as N, dissolved	0.109	H	mg/L	0.02	0.1	JHT0.5	J-
MW-2B	L73169-02	Nitrate as N, dissolved	0.2	H	mg/L	0.02	0.1	JHT0.5	J-
MW-7	L73169-03	Nitrate as N, dissolved	0.186	H	mg/L	0.02	0.1	JHT0.5	J-
MW-13	L73169-01	Nitrate/Nitrite as N, dissolved	0.109	H	mg/L	0.02	0.1	JHT0.5	J-
MW-2B	L73169-02	Nitrate/Nitrite as N, dissolved	0.2	H	mg/L	0.02	0.1	JHT0.5	J-
MW-7	L73169-03	Nitrate/Nitrite as N, dissolved	0.186	H	mg/L	0.02	0.1	JHT0.5	J-
MW-13	L73169-01	Nitrite as N, dissolved		UH	mg/L	0.01	0.05	UJHT0.5	UJ-
MW-2B	L73169-02	Nitrite as N, dissolved		UH	mg/L	0.01	0.05	UJHT0.5	UJ-
MW-7	L73169-03	Nitrite as N, dissolved		UH	mg/L	0.01	0.05	UJHT0.5	UJ-
MW-2B	L73169-02	Residue, Filterable (TDS) @180C	5660	H	mg/L	40	80	JHT3	J-
MW-7	L73169-03	Residue, Filterable (TDS) @180C	5660	H	mg/L	40	80	JHT3	J-
MW-9	L73303-03	Residue, Filterable (TDS) @180C	4390	H	mg/L	100	200	JHT4	J-
MW-7	L75198-05	Selenium, dissolved	0.00075		mg/L	0.0001	0.00025	UCB0.00015	UB
MW-14	L75198-01	Mercury, dissolved		U	mg/L	0.0002	0.001	UJMS40	UJ